

GLENN COUNTY GENERAL PLAN

VOLUME I - POLICIES

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VISION STATEMENT

County decision makers, staff and the General Plan Citizens Advisory Committee have examined a number of growth and development scenarios for Glenn County as a part of the general plan development process. These scenarios have focused on implications for natural resources, public safety and community development. From this process, a potential future for Glenn County has been identified and reflected in the preferred alternative. This future condition embodies several general concepts and actions, which form a vision for Glenn County as described below:

- Growth and development will occur predominantly within and adjacent to existing developed areas. A preponderance of the growth will occur within Orland, Willows, Hamilton City, and Artois, and to a lesser degree in Butte City and Elk Creek. Other established communities will continue to serve as local service centers, although actual growth within those communities will be limited. Urban limit lines will be placed around the six major communities, and most growth of an urban nature will take place within them. New areas for growth and development will emerge along I-5 at major interchanges. These new growth areas will be carefully planned, including requirements for establishment of specific plans for development and urban limit lines. Within the urban limit lines of Orland and Willows, the cities and the County will continue close communication and cooperation, to ensure that land resources and public services are utilized in the most beneficial and effective way.
- Housing types will become more diversified in the county. More planned unit developments (PUDs) or mixed use developments will occur as the scale of development enlarges. Such amenities as golf courses and lakes will be planned in conjunction with development. Cluster housing will be utilized to preserve agricultural land, and low and moderate income housing needs will be met utilizing a variety of new programs. People will be able to find high-quality, affordable housing in reasonably close proximity to their workplaces. Day care and other similar necessities of modern life will be planned for in conjunction with new housing developments.
- Agricultural land will continue to be carefully conserved, and new and more effective steps will be employed to preserve agricultural land. The preservation of agricultural land will not just be for nostalgic reasons, however. The agricultural sector of Glenn County's economy and the county's rural heritage will remain prominent. Outside the six major development centers, population density will remain low, with scattered homesteads and some non-farm rural residential settlement around established communities.
- An increasing emphasis will be placed on tourism and recreation as economic generators, including hunting and other active use of private and public lands. The local economy will attain greater diversification, with a concerted and adequately funded economic development effort. New industries which no longer find urban environments attractive and efficient places to do business will locate within or near Orland and Willows, in industrial parks created through public and private action. Examples of new businesses which will locate in Glenn County include a variety of proprietary industries, outdoor equipment manufacturers, and packaging, assembly and recycling operations. This emphasis on creation of jobs will

significantly reduce the county unemployment rate and will assist in reducing the public assistance burden.

- The retail and service sector will also grow, in part due to an aggressive economic development effort and in part to growth in population. Fewer goods and services will be available only in Chico, and sales tax leakage to Butte County will be reduced. Commuting to Butte County for employment as well as for goods and services will diminish in relative importance. The county will fully capitalize on its proximity to I-5, and will generate considerable economic activity related to motorists on the highway.
- Development patterns will stimulate demand for use of public transit with concentrations of population within urban limit lines. Employment, goods and services will also be planned for in conjunction with new housing in order to reduce the need for automobile trips. Air quality will remain good as decisions are made to minimize the impact of development and transportation on air resources.
- Major roadways and highways will be widened to avoid congested conditions. Improvements will be made to the collector system in the City of Orland to reduce local traffic demand on Highway 32. Forest Highway 7 will be paved to the coast, enhancing ease of movement through Mendocino National Forest and providing more destinations for tourists. A comprehensive bikeway system will be created and utilized as an alternative to some automobile trips and as an attraction to tourists visiting Glenn County. Natural areas, waterways and population centers will be linked to the bikeways.
- The quality of education will remain high. New facilities necessary to meet demand will be funded to a great extent through new sources of revenue, particularly revenues generated from assessments and fees associated with new development. The presence of Butte College in Glenn County will grow, and an enlarged and full service campus will be developed within urban limit lines.
- Glenn County's assets and heritage will be protected and preserved while providing for growth and development. County and special district supplied services will be upgraded to meet the demand generated by new development, and new development will be called upon to meet its fair share of service expansion costs. The role of volunteers within the various fire agencies will be preserved as part of the lifestyle and governmental structure in Glenn County. As population grows, more comprehensive health services will become available in the county. Fewer medically related trips out-of-county will be necessary. Consolidation of service delivery will occur over time, in response to growth demands.
- The county's surface and groundwater resources will be protected through local and State action. Water resources will be put to their fullest use locally for agriculture, recreation, wildlife, and economic development. Groundwater recharge areas will be protected from harmful overcovering and pollution through careful land use planning, and creation or expansion of public sewer systems.
- Public lands purchased for preservation of wildlife will generate additional economic activity as scientists and members of the public come to view and study remnant ecosystems. A

bikeway and pathway system will permit ready access to such lands. The county will retain its abundant recreational opportunities, attracting people who are also attracted to outdoor activity, and a lifestyle which permits time to enjoy the out-of-doors. At the same time, new urban development will be fully complemented with parks and other open space features, ensuring a healthy and enjoyable living environment.

The vision described above will remain just that if it is not implemented. The role of the general plan is to provide the County with a "road map" to help it reach its desired future. The following chapters contain the tools and enumerate the steps necessary to allow the achievement of a more prosperous and dynamic Glenn County. They should be read thoughtfully and carefully and viewed as necessary steps to be taken toward a better future, while also providing for the retention of those things which make Glenn County a desirable and unique place to live.

SECTION 1 - INTRODUCTION

1.0. PURPOSE AND NATURE OF GENERAL PLAN

The General Plan is a comprehensive plan for growth and development in Glenn County for the next 20 years (1992-2012). It applies to all of the unincorporated area of the county outside of the cities of Willows and Orland, which have their own general plans. A general plan is often compared to a "constitution" for development, the policy basis for all land use decisions in the county. Every county and city in the State is required by State law to adopt a general plan.

1.0.1 Role of the General Plan: definition;

The general plan should serve as a useful guide for local decision-making. In addition to meeting the requirements of State law, there is also a "common sense" standard that provides for the general plan to focus on issues of greatest local concern. In Glenn County, those issues include growth, adequacy of public services and facilities, preservation of agricultural land, and economic development.

The general plan process offers the County the opportunity to plan pro-actively, based on a vision for Glenn County over the next 20 years, rather than simply reacting to individual development proposals. It also allows the County and other public service providers (such as the community services districts, public utility districts, fire districts, water and irrigation districts, and school districts) to plan for services and facilities consistent with the plan. The general plan is also the basis for all planning efforts, such as specific plans and redevelopment plans. According to the State General Plan Guidelines, the process of adopting and implementing a general plan serves to:

- Identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision making, including a "nexus", or connection, to support development exactions (fees or other requirements).
- Provide citizens with opportunities to participate in the planning and decision making processes of local government.
- Inform citizens, developers, decision makers, and other cities and counties of the ground rules that will guide development within the community.
- Bridge the gap between community values and actual physical decisions.

First and foremost, in addition to complying with State law, the general plan should be a document that is meaningful to residents of Glenn County. As described above, it should focus on those issues of greatest importance and concern to Glenn County. This focus can be best

achieved through active public participation and involvement in the planning process, which is described in Section 1.1.2 below.

1.0.2 Required Elements;

The general plan must address seven "elements" or subjects: land use, circulation (transportation), housing, open space, conservation, safety, and noise. These elements must address the following issues:

- The land use element designates the general distribution and intensity of uses of the land for housing, business, industry, open space, education, public buildings and grounds, waste disposal facilities, and other categories of public and private uses.
- The circulation element is correlated with the land use element and identifies the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities.
- The housing element is a comprehensive assessment of current and projected housing needs for all segments of the community and all economic groups. In addition, it embodies policy for providing adequate housing and includes action programs for this purpose.
- The conservation element addresses the conservation, development, and use of natural resources including water, forests, soils, rivers, and mineral deposits.
- The open space element details plans and measures for preserving open space for natural resources, the managed production of resources, outdoor recreation, public health and safety, and agricultural land.
- The noise element identifies and appraises noise problems within the community and forms the basis for land use distribution.
- The safety element establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and fire hazards.

In addition, the Glenn County General Plan includes an economic development element, which establishes an economic development strategy for the county.

Glenn County has chosen to organize its General Plan as described in Section 1.2.1 below, rather than the traditional "element" format, in order to avoid the duplication and overlap that can result from that approach. State law provides that the general plan may be adopted in any format that the County determines to be appropriate or convenient.

1.1. PREPARATION OF THE GENERAL PLAN

1.1.1 Overview of Process

The County's General Plan revision and update program was initiated in January 1991 with the selection of QUAD Consultants and specialty subconsultants Dowling Associates (transportation engineers) and Brown-Buntin Associates (acoustical consultants) to assist the County with the process. One of the first steps in the process was a consultation with local and State agencies regarding issues and sources of information.

As a basis for policy development, the Consultants prepared a detailed Environmental Setting Technical Paper which describes the existing conditions that apply to all the subject areas to be addressed in the General Plan. That document is organized to correspond to the major elements of the Policy Plan: Natural Resources, Public Safety and Community Development. There is also a section describing the relationship of other plans adopted by the County and other agencies to the General Plan. For each major subject heading, this document includes an analysis of issues, opportunities and constraints.

The next step in the process was the preparation of three issue papers to assist in the formulation of the General Plan: the Natural Resources Issue Paper, Public Safety Issue Paper and Community Development Issue Paper. In addition to a discussion of issues, each issue paper contains three alternative scenarios for Glenn County, discusses the respective roles of the cities and the County, and recommends goals, policies, implementation strategies and standards for consideration during the General Plan revision process.

The Natural Resources Issue Paper focuses on county attributes related to the physical environment, including agriculture and soils, water, biology, timber, minerals and energy, and cultural resources. The focus is on the non-urban portions of the county, and on programs and ways to retain, enhance and utilize the natural environment.

The Public Safety Issue Paper addresses topics related to public health and safety: law enforcement, fire hazards and fire protection, geologic hazards, air quality, flooding, water quality, noise, and solid and hazardous waste. The focus is on the impact natural and human-created hazards may have on development and future population, and on programs and ways to direct, enhance and serve development in a safe and cost-effective fashion.

The Community Development Issue Paper focuses on topics related to growth and development in Glenn County. Included are land use and growth, preservation of agricultural lands, transportation and circulation, housing, public services and facilities, and economic development. The focus is on the urbanized and urbanizing areas of Glenn County, and on programs and ways to direct, enhance and serve new development to the County's benefit.

1.1.2 Public/Community Involvement

The general plan update and revision process has been directed by Glenn County Planning Department staff and the Glenn County Board of Supervisors. The Board of Supervisors appointed a 25-member Citizen Planning Advisory Committee (with five members appointed from each supervisorial district) to review all documents and to advise the Consultants and staff.

The Citizen Planning Advisory Committee met numerous times at locations throughout the county over a period of several months to identify issues and assist in formulating goals, policies and alternatives. All meetings were open to the public and allowed for comments from non-committee members. In addition, Planning Department staff has met with numerous community groups and organizations, both prior to and after development of the Policy Plan, to receive comments and suggestions. Further input from the public at large was sought and received through the public hearings held prior to General Plan adoption, before both the Glenn County Planning Commission and Glenn County Board of Supervisors.

1.1.3 Alternatives;

The alternative scenarios from each issue paper were presented to the Glenn County Planning Commission and Board of Supervisors at a joint study session in April, 1992. From among these alternatives, a consensus was reached as to a preferred alternative for natural resources, public safety, community development, and economic development. These preferred alternatives form the basis for this Policy Plan, and are generally described below.

The three alternatives identified for natural resources included one with a strong natural resource preservation ethic (1NR); one which emphasizes use of natural resources in a regulated framework that balances preservation with beneficial use (2NR); and a third which gives the highest priority to relatively unconstrained use and development of natural resources (3NR). The three alternatives identified for public safety included one in which public safety concerns dominate the agenda, leading to an inability to approve new development which is economically feasible and which would foster new economic activity (1PS); one which balances public safety concerns against the need for housing, jobs and economic activity (2PS); and a third which deemphasizes public safety concerns in order to capture greater economic activity (3PS).

In the case of community development, the three alternative scenarios were tied to differing rates of growth (low, medium and high). For each growth rate, the alternatives also examined patterns of development, ranging from direction of virtually all growth to the cities of Willows and Orland to a scenario which spreads growth evenly between various established and future communities. A third scenario emphasizes growth in the northern county with a slower rate of growth in the southern county area, and a final scenario would direct growth to foothill areas, away from the higher value agricultural lands. The three rates of growth utilized in this analysis are an annual growth rate of 1.5 percent for the low range (1CD), three percent for the mid-range (2CD), and five percent for the high range (3CD).

Alternatives were also presented for the County's approach to economic development, each with different implications for the probable intensity and direction of growth that the county might experience. The alternatives included one which deemphasizes economic development in proportion to other land use and planning priorities and discourages growth (1ED); a laissez faire County position regarding economic development and growth, including provisions to accommodate economic expansion and further development, but incorporating no overt County initiatives to encourage such activity (2ED); and one which presents the County as an active participant in, and supporter of, economic expansion and the promotion of additional local economic development (3ED).

The preferred alternatives selected by the Board of Supervisors and Planning Commission were 2NR, 2PS, 2CD and 3ED. This Policy Plan is based upon a composite of these preferred alternatives.

1.1.4 Amendment Process;

The process of amending the general plan is established in State law. The County may amend each of the seven mandatory elements (land use, circulation, housing, noise, safety, open space and conservation) no more than four times in one calendar year, although some exceptions apply. Some counties consider general plan amendments only at regularly scheduled intervals (such as once every three or four months), while others (presumably with less planning activity) consider amendments at any time. General plan amendments can be initiated by the Planning Commission or Board of Supervisors, or can be applied for by private parties.

General plan amendment procedures are similar to the plan adoption process: at least one public hearing is required before both the Planning Commission and the Board of Supervisors. An environmental finding must be prepared pursuant to the California Environmental Quality Act (Negative Declaration or Environmental Impact Report). The Planning Commission's approval or denial of a general plan amendment is forwarded as a recommendation to the Board of Supervisors, which makes the final decision to approve or deny the requested amendment.

The Policy Plan establishes standards for some types of general plan amendments which must be considered when approving or denying the request. The types of amendments to which standards apply include the amendment of urban limit lines, conversion of land within urban limit lines, conversion of land from agricultural and grazing use, establishing new planned communities, and changing roadway functional classifications.

1.2. ORGANIZATION OF THE GENERAL PLAN

1.2.1 Format of the Plan

The Glenn County General Plan consists of five documents: the Policy Plan (Volume I), the Natural Resources, Public Safety, and Community Development Issue Papers (Volume II), the Environmental Setting Technical Paper (Volume III), the Environmental Impact Report (Volume IV) and the Energy Element. Volume III, the Environmental Setting Technical Paper, describes and analyzes the existing conditions in Glenn County and the region. It provides supporting documentation for the Policy Plan and also serves as the required "environmental setting" section of the Environmental Impact Report. The Issue Papers (Volume II) provide further background information, analysis and justification for policy statements included in the Policy Plan.

Volume I, the Policy Plan, sets forth the goals, policies, implementation strategies, and standards for the General Plan, terms which are defined below. It also includes the Land Use Diagram and Circulation Diagram, designations and standards for population density, land use and building intensity. Together, these policy statements, designations, diagrams, and standards constitute the policy of Glenn County for the comprehensive, long-range physical development of the county.

The Policy Plan opens with a vision for the county's future over the next twenty years, a statement of what the county will ideally be like in the year 2012. Section 2, which follows this

Introduction, describes the preferred alternative that forms the basis for the Glenn County General Plan.

Section 3 of the Policy Plan defines and describes the land use and circulation designations which appear on the Land Use Diagram and the Circulation Diagram, as well as the standards for population density and/or land use intensity for each designation. Section 3 also includes the Diagrams and a zoning consistency matrix. Estimated General Plan buildout information (in terms of population, housing units, acreage and square footage) and other implications of the Policy Plan are discussed in Section 4.

The goals, policies, and implementation strategies for the General Plan are found in Section 5. This section is divided into the three major subject areas: Natural Resources, Public Safety, and Community Development, with appropriate subsections under each. Within each subsection, there is a background discussion, followed by policy statements arranged in the following order: goals, policies, objectives (for housing only), implementation measures, programs and priorities (including year for housing). Standards for implementation of General Plan policy statements are found in Section 6.

Volume IV of the Glenn County General Plan is the Environmental Impact Report prepared for the General Plan. As provided in Section 15166 of the State CEQA Guidelines, this EIR is integrated with the General Plan document, and was prepared in compliance with the requirements of the California Environmental Quality Act. The EIR assesses the impacts of the Glenn County General Plan on the environment, and recommends mitigation measures for significant impacts, which are already incorporated into the policy statements of the General Plan.

The Energy Element has been prepared separately to specifically address issues of energy conservation and resources within the county. Although a separate document, it is intended that it be adopted concurrently with Volumes I-IV and have the same force and effect as the balance of the General Plan.

Two other documents have been prepared to accompany the General Plan and are printed under separate cover: a Capital Improvements Plan and Impact Mitigation Fee Program. The Capital Improvements Plan determines capital facilities and improvements necessary to support the growth and development envisioned in the General Plan, and sets out a program for constructing those improvements. The impact mitigation fees are designed to offset such costs, but are not limited to those, associated with providing law enforcement, fire protection, storm drain/flood control improvements and traffic/circulation improvements to serve new development consistent with the Plan.

1.2.2 Definitions

Every effort has been made to keep the General Plan free of planning "jargon" and obscure terms and references. The use of some technical terms is difficult to avoid, but these terms are defined for the reader's benefit. The Policy Plan contains goals, quantified objectives (as required for housing), policies, implementation strategies, standards, and diagrams, which are defined in the General Plan Guidelines as follows:

Goal: definition. A goal is a direction-setter. It is an ideal future end, condition or state related to the public health, safety or general welfare toward which planning and planning implementation measures are directed. A goal is a general expression of community values and, therefore, is abstract in nature. Consequently, a goal is generally not quantifiable, time-dependent or suggestive of specific actions for its achievement.

Objective: definition. An objective is a specific end, condition or state that is an intermediate step toward attaining a goal. It should be achievable and, when possible, measurable and time-specific. An objective may only pertain to one particular aspect of a goal or it may be one of several successive steps toward goal achievement. Consequently, there may be more than one objective for each goal.

Policy: definition. A policy is a specific statement that guides decision-making. It indicates a clear commitment of the local legislative body [Board of Supervisors]. A policy is based on a general plan's goals and objectives as well as the analysis of data. For a policy to be useful as a guide to action it must be clear and unambiguous.

Implementation Strategy: definition. An implementation strategy is an action, procedure, program or technique that carries out general plan policy. Each policy must have at least one corresponding implementation measure.

Standard: definition. Standards define the abstract terms of goals, objectives and policies with concrete specifications. The Standards, although adopted by resolution concurrently with the General Plan document, are intended to be amended from time to time and are not subject to the general plan amendment process as established in State law.

Diagram: definition. A diagram is a graphic expression of a general plan's development policies, particularly its plan proposals. A diagram must be consistent with the general plan text and should have the same long-term planning perspective as the rest of the general plan. The diagram, along with the general plan text, provides a rational basis for planning-related regulations.

As indicated in the General Plan Guidelines, the word "shall" in a policy statement indicates an unequivocal directive. The word "should" signifies a less rigid directive, to be honored in the absence of compelling or contravening considerations.

Section 3 of the Policy Plan defines and describes the land use designations and roadway functional classifications which appear on the Land Use Diagram and Circulation Diagram, respectively.

1.2.3 Cross-Reference of Mandatory Elements/Issues

The seven mandatory elements of the general plan, as well as the optional economic development element, are organized under three major subject headings in the Policy Plan, as follows:

- Natural Resources: subject heading, including agriculture water, biological, timber, mineral and energy, and cultural resources. This element incorporates the required aspects of the conservation element and portions of the open space element.
- Public Safety: subject heading, including law enforcement, fire hazards and protection, geologic hazards, air quality, flood hazards, water quality, noise, and solid and hazardous waste. This element incorporates the required safety and noise elements, as well as some of the required portions of the open space element.
- Community Development: subject heading, including land use/growth, transportation/circulation, housing, public services and economic development. This element incorporates the required land use, circulation and housing elements, and the remaining portions of the open space element.

1.3. MAINTENANCE OF THE GENERAL PLAN: *maintenance*

According to the State General Plan Guidelines, "At one time, the local general plan was looked upon as a set of broad policies that had little actual role in development decisions. In those days, general plans consisted of brightly colored maps or printed booklets that were carefully prepared and then set aside so as not to interfere with the job of decision making."

Glenn County has no intention of allowing its General Plan either to sit unused on the shelf, or to allow it to become obsolete so that it is not relevant in day-to-day decision-making. Several steps will be taken to ensure that the General Plan remains useful and up-to-date.

This Policy Plan includes one or more implementation strategies for each policy, prioritizes those strategies in terms of the time frame within which they will be implemented (immediate, three to five years and beyond five years), and identifies the local agencies responsible for carrying out the strategies. These strategies ensure that the policies will actually be implemented.

State law requires the County to provide an annual report to the Board of Supervisors on the status of the Plan and progress in its implementation. The State General Plan Guidelines recommend that a county annually review those portions of the general plan having a short-term focus, and consider amendments as necessary. The review should take into account the availability of new implementation tools, changes in funding sources, and the feedback from plan monitoring activities.

With the exception of the housing element, there is no required timetable for updating the general plan. The Guidelines recommend that the local planning agency should thoroughly review the entire general plan every five years and revise it as necessary, but that is not a requirement. The housing element must be updated every five years, and the schedule for revision is established in State law.

SECTION 2 - PREFERRED ALTERNATIVE

2.0. DESCRIPTION

The preferred alternative assumes a rate of growth of three percent per year resulting in a countywide population of approximately 47,000 people. This is an increase of 21,700 persons by the year 2012. Although this may appear high in the context of Glenn County, it is not unrealistic based on growth trends and projections in growing areas of California and is consistent with Glenn County's rate of growth during the past three years. For comparison purposes, the City of Willows assumes a growth rate of two percent, while Orland is looking to a growth rate as high as five percent. No distinction is made in the above population figure between incorporated and unincorporated area population. If it is assumed that approximately 55.5 percent of the future countywide population will reside in the unincorporated area (as was the case in 1991), approximately 12,000 additional people will reside in the unincorporated portion of the county, while the two cities will gain another 9,700 persons. The two cities are presently anticipating a planned increase of 11,041 people, or slightly more than 50 percent of the projected growth.

It is assumed that most of the growth will be concentrated in the Highway 32 corridor, in the vicinity of Willows and along I-5. The amount of growth suggested by this scenario may be sufficient to generate interest in foothill development, if infrastructure and service costs are addressed through Mello-Roos or other assessment district financing.

The demand for new jobs generated by this scenario will approach 5,000. Commuting to Chico may partially offset in-county demand for jobs, however, it is obvious that the Plan must contain a strong strategy for job creation and economic diversification. If not, the county could end up with a substantial unemployment problem and social service obligation. Agriculture's role in the overall economy will be somewhat diminished under the preferred alternative but will remain dominant.

More than 4,000 additional housing units will be required in the unincorporated area under this scenario in order to meet demand, and an additional 3,500 housing units will be required within the two cities. Approximately 2,000 acres will be necessary to accommodate unincorporated area growth.

Glenn County will continue and expand its role as an active participant in and supporter of the local and regional economic development processes, and will establish a pro-economic growth policy framework, giving reasonable priority to employment-generating land uses over natural resource preservation, agricultural land utilization and other environmental concerns. The County will also contribute funding and staff resources to active economic development programs and initiatives operating on behalf of Glenn County and the region.

Sites will be established and zoned for employment-generating commercial and industrial land uses at appropriate key locations, such as along I-5, at the airports, and additional locations where infrastructure and other factors indicate feasibility. The County will seek and implement public improvements, e.g. road improvements, wastewater disposal, etc., supporting commercial and/or industrial development.

The County's approach to economic development will be very proactive with the County as a key player in local economic and business development initiatives projecting a pro-growth and pro-business attitude. Means will be sought to accommodate new development while providing for reasonable protection of the public health and safety. In this effort, institutional change would be actively pursued in order to meet the demands of changing times.

County officials will actively participate in the activities of Glenn Chamber of Commerce Economic Development, Inc., the Tri-County EDC and other local and regional economic development and business promotion organizations. County funding support, and technical assistance from County staff, will be provided at appropriate and affordable levels to such organizations. County contact with the State Department of Commerce and other outside agencies will be established and maintained to ensure that Glenn County stays "in the loop" on regional and statewide business development opportunities.

Processing of applications for employment-generating projects and new businesses by the County will be expedited by County staff through the decision-making process. Staff will afford project applicants with whatever technical assistance is feasible and reasonable in formulating application materials. The County will, through its own day-to-day operations, promote local business, in the form of local procurement of goods and services whenever possible, in the form of a cooperative regulatory enforcement environment, and through the provision of adequate public services.

Consolidation of services will be explored and implemented when more cost effective or efficient patterns of service delivery would result. The County will look to play a role in service areas in which it had not previously participated, if necessary, to bring about improved service levels. Financing for services, as well as needed capital outlay, will be built into new project approvals to ensure adequate levels of service while accommodating new development. The latter could be accomplished in part through service impact fees and financing mechanisms such as Mello-Roos.

The concept of "new towns" is endorsed under the preferred alternative as long as sites under consideration are adequately buffered from agriculture and natural areas and have no adverse impact on these resources. In order to ensure compatibility, extensive front-end planning of such communities will occur, including development of specific plans. Necessary financing and physical safeguards will also be built into the development, including appropriate measures to protect development from flooding and wildland fires. Appropriate standards sufficient to protect development from various geologic and water quality hazards will be adopted and applied to all new projects. Air quality attainment plans will be implemented and necessary steps will be taken to encourage alternative transportation, where it is feasible, as well as jobs/housing balance, in order to avoid degradation of the county's air resources. Source reduction of solid and hazardous waste will be encouraged through the many programs outlined in the applicable plans and will include the County's active involvement.

Preservation and conservation of natural resources will be accommodated while providing sufficient flexibility to allow for physical and economic growth. Decisions concerning preservation of natural areas will be influenced more by local priorities than those established at the State and federal level. Strong protection measures will be built into various forms of economic activity, and emphasis will be placed on finding ways to preserve agriculture and accommodate growth and development, while still protecting significant natural areas in Glenn County. Dialogue and cooperation with other levels of government are stressed and agreement is sought on limits of land acquisition activities.

The Williamson Act will receive strong support in recognition of its value in preserving agricultural lands. Areas along the I-5 corridor and adjacent to growth centers, however, will be examined to determine if the use of certain lands for other forms of economic activity outweighs their present agricultural value. Full reimbursement by the State of tax loss resulting from Williamson Act implementation will continue to be a high priority. Other agricultural land preservation tools will be utilized, when appropriate, to retain agricultural land, including transfer of development rights, exclusive agricultural zoning and minimum parcel sizes. A dairy attraction program along with other efforts to diversify the county's agricultural sector will be pursued, recognizing that standards for siting of dairies and their development need to be carefully crafted to ensure that environmental problems are avoided.

Urban limit lines will be an important tool, permitting communities to shape and contain their urban area in such a way that minimum amounts of high value agricultural lands are disturbed and natural areas are avoided. The concept of infill is promoted, but it is also recognized that peripheral expansion provides unique and competitive economic development opportunities. Rural residential activity will be confined to already established areas on the valley floor, and foothill areas will be examined as possible alternative locations for large lot homesites.

Exportation of ground and surface water will be discouraged. Local domestic and agricultural: water use use of water will be given the highest priorities. Groundwater recharge areas will be carefully protected, and the type of development occurring in such areas will be closely reviewed, to ensure that excessive overcovering does not occur and that the risk of pollution of the aquifer is minimized. Septic systems will be discouraged in such areas, and sewage collection systems will be planned where densities warrant.

Watershed areas: protection of will be protected through adoption of standards for development on such lands. Development on steeply sloping terrain will be discouraged. New reservoirs will be given consideration as long as potential adverse impacts can be mitigated.

The County will work with wildlife agencies and groups to identify critical habitat: protection of in Glenn County. A variety of tools will be used for its protection, including purchase in some instances. Agreement will be sought on areas needing protection and the level of protection required. A plan will be developed, publicly debated and ultimately adopted by all parties. Membership will be requested on the Sacramento Valley Bioregion Regional Council in order to protect Glenn County's interests. Any plan, including acquisition of fee title or farming rights, will include a mechanism for reimbursement of local tax and economic loss. Priorities established by other levels of government, although recognized and dealt with realistically, are critically analyzed in terms of either benefit or harm to Glenn County.

Riparian areas will be afforded protection and the E-M (Extractive Industrial) Zone will be eliminated or modified to provide greater protection to Stony Creek. Aggregate mining will continue to be treated as an integral part of the county's economic mix; however, standards for such activity will be carefully reviewed and adequate reclamation plans and securities will be required.

Hunting opportunities will be expanded in the county to the extent practical. Strong support will be given to pay-to-hunt enterprises, and agriculture will be encouraged to include fish and game management in its land steward activities. Flooding rice fields in winter months will be supported not only as an assist to wintering waterfowl but also as a possible alternative to rice straw burning.

Timberlands will be viewed from a multiple use perspective. Recreational and other non-timber uses of private timberlands will be considered and encouraged, subject to a determination that the development poses no unmitigated service burdens on the county and does not create harm to the watershed. Public acquisition of inholdings by the National Forest will be resisted due to the loss in property tax revenues to the County.

Continued development of gas fields will be encouraged, and energy conservation in building construction and design of communities will be promoted, including infill, clustering and alternative modes of transportation, when feasible.

Historical preservation, scenic highways and cultural resource protection and recovery will continue to be discussed with decisions made at some future time as to their relative priority in Glenn County.

2.1. ANALYSIS;

The type of growth anticipated by the preferred alternative will have a considerable impact on the county and will change the character and scale of present communities. It will require a concerted effort to upgrade and expand infrastructure and services. In order to be able to generate the dollars necessary to pay for costs to County government, a financing plan must be in place which requires developers and future residents to pay for these costs. In addition, the County must be careful to ensure that jobs and other revenue generating activities accompany housing and that the county does not simply become an inexpensive place for people to live, who work and shop in the incorporated cities and adjoining counties.

At least 200 housing units will be needed each year. This should not present a substantial burden to the County if properly planned for, including a government service financing plan, and use of urban limit lines to control scattered growth. Adequate sites are available for this amount of housing without undue impact on other activities. In the Hamilton City area and elsewhere, larger areas subject to flooding or utilized for groundwater recharge will become subject to development pressure. Air quality and transportation impacts will increase, and considerable attention must be given to jobs/housing balance and alternative transportation to reduce commutes and the resultant impacts on air and roads. Planning should focus on greater utilization of the I-5 corridor where sufficient capacity exists for additional trips.

Under the preferred alternative, a large amount of new industrial and business development would conceivably occur in Glenn County. To the extent that such development were to be induced, the county would experience the inevitable related consequences of growth: new population, conversion of open and agricultural lands to urban uses, increased demands for public services, traffic, and other typical outcomes of development projects. Accompanying such development, however, should also be more jobs for county residents, less seasonal fluctuation in employment, more disposable income to put back into the county's economy, and more tax revenue available to meet growing public service demands.

A proactive County government and an active and competent economic development program, however, are not enough to ensure that industrial growth and business development in Glenn County will take place. Economic development and business recruitment occur in a highly competitive environment throughout rural California, and the number of new or expanding businesses which might locate in California is small in proportion to the number of jurisdictions and geographic regions which would welcome them. The experience of other communities and counties throughout the State has been that active and effective local business recruitment and business retention programs, in a pro-business environment, are far more successful in generating economic expansion, with its corresponding benefits, than are those areas who are anti-growth or laissez faire. Consequently, to the extent that Glenn County places a policy priority on successful economic expansion for the benefit of county residents, experience suggests that the proactive and committed approach is required to achieve the County's economic objectives.

The legitimate concerns of public safety service providers are addressed under the preferred alternative and solutions to identified

problems are actively sought, including institutional change and new sources of financing. It is assumed that the County will play an active and direct role in solving public safety service problems and will facilitate change and consolidation of responsibility, when appropriate. While recognizing public safety concerns, the county must not forget that growth and new economic activity are vital to the county's future.

In order to expand economic opportunity, ways to finance change and growth must be found, and some risk assumed. The County must also have adequate yet reasonable standards and regulations in place to ensure that hazards are mitigated. To accomplish this, the County must be willing to form various financing and maintenance districts to deal with issues as they arise.

Short-term and long-term environmental impacts which may be experienced include more land being utilized for development than would be the case if growth were discouraged. Additional agricultural land will be lost to urbanization and some land now under the Williamson Act may be removed. Conflicts with agricultural operations may increase and less area will be permanently set aside for fish and wildlife. Although agriculture may lose some acreage, it is not anticipated that it would decline to any significant degree. New high value agriculturally related activities, such as dairies, will be attracted to the county which would help offset the value of land lost to other uses.

There is the potential for an increase in noise levels. Implementing a reasonable set of noise standards that are consistent with those of other jurisdictions should mitigate concerns to an acceptable level. Additional space and processes will be required for solid waste disposal. Adequate fees must be charged for this service and emphasis must be placed on source reduction.

The preferred alternative recognizes that both use and protection of natural resources are important to the county and the well-being of its residents. Priorities are established which provide for growth in the local economy, and the focus is placed on quality of life for residents of Glenn County.

SECTION 3 - LAND USE AND ROADWAY CLASSIFICATIONS/LAND USE AND CIRCULATION DIAGRAMS

3.0. LAND USE CLASSIFICATIONS.

To translate the goals and policies of the Policy Plan into diagram or map form, a set of land use classifications must be adopted to serve as a guide for designating the general land use distribution. Determining the land use designation for any area is generally based on the following criteria:

- Desire to protect agricultural areas from non-agricultural uses
- Existing uses of land when compatible with the goals and policies of the Plan
- Accessibility/circulation
- Soils classification
- Vegetation

- Existing parcel size, when consistent with goals and policies of the Plan
- Availability of public services and facilities and potential for expansion
- General characteristics of the area, such as slope, flood zone or biological significance
- Desire to remedy previous poor or obsolete land use decisions

Each land use classification has been defined and its purpose stated. Uses which would typically be permitted in each classification have been identified, as well as population density and building intensity standards. Where building intensity standards refer to net acreage, the standard must be met after roads and other dedications have been removed from the property. Where no reference to net acreage is made, acreages may be assumed to be gross acreage, including roads and other encumbrances. A zoning consistency matrix (see Table 3-1) has been developed that reflects the appropriate zoning classifications which meet the intent of the land use designations. This matrix is to be utilized when considering zoning reclassification proposals. The Glenn County Zoning Code may further define the uses which are permitted within each classification.

TABLE 3-1
 LAND USE CLASSIFICATIONS: Table.
 ZONING CONSISTENCY MATRIX

LAND USE CLASSIFICATION	ZONING DESIGNATION ¹
Open Space/Public Lands	OS*
Foothill Agriculture/Forestry	FA, TPZ, AP, OS
Intensive Agriculture	AE-40, AE-80, AP
General Agriculture	AE-20
Agricultural/Residential	AT
Rural Residential	RE-5, PDR
Suburban Residential	RE-NW, RE-1, RE-2, PDR
Single Family Residential	R-1, PDR
Multiple Family Residential	R-M, PDR
Local Commercial	LC, PDC
Community Commercial	CC, PDC
Service Commercial	SC, PDC
Highway and Visitor Service Commercial	HVC, PDC
Industrial	M, PDC
Business Park	MP*
Public Facilities	All
Recreation	RZ

¹ The table contains abbreviations for the following zones:

- OS Open Space Zone
- FA Foothill Agricultural/Forestry Zone
- TPZ Timberland Preserve Zone
- AP Agricultural Preserve Zone
- AE Exclusive Agricultural Zone (number indicates minimum parcel size in acres)
- AT Agricultural Transitional Zone
- RE Rural Residential Estate Zone (number indicates minimum parcel size in acres)
- RE-NW Rural Residential Estate Zone - North Willows

PDR Planned Development Residential Zone
 R-1 Single Family Residential Zone
 R-M Multiple Residential Zone
 LC Local Commercial Zone
 CC Community Commercial Zone
 PDC Planned Development Commercial Zone
 SC Service Commercial Zone
 HVC Highway and Visitor Commercial Zone
 M Industrial Zone
 MP Industrial Park Zone
 RZ Recreation Zone
 AV Airport Zone

*Indicates new zoning classification

The land use classifications utilized to designate land within Glenn County, and which are shown on the Land Use Diagram (Figure 3-1, inserted separately at the back of this document, and Figures 3-2 through 3-13 at the end of this section), include:

- Open Space/Public Lands
- Foothill Agriculture/Forestry
- Intensive Agriculture
- General Agriculture
- Agricultural/Residential
- Rural Residential
- Suburban Residential
- Single Family Residential
- Multiple Family Residential
- Local Commercial
- Community Commercial
- Service Commercial
- Highway and Visitor Service Commercial
- Industrial
- Business Park
- Public Facilities
- Recreation

In addition to the above land use classifications, several designations have been created in the form of overlays, to be applied in combination with the classifications listed above (Figures 3-14 through 3-19 at the end of this section). These Special Overlay Designations: identification reflect special concerns and include the following:

- Biological Importance - BI
- Restorable Wetlands - RW
- Historic/Cultural - HC
- Floodway - FW

- Floodplain - FP
- Landfill/Septage Disposal Sites - SD
- Groundwater Recharge Areas - GR
- Streamside Protection Zone - SPZ

These overlay designations should be considered in conjunction with the underlying land use designation when reviewing development proposals, zoning reclassification proposals, or changes in land use designation, since they reflect constraints. In most cases, specific standards set forth in this Policy Plan assist in implementing the overlay designations. A list of zoning classifications compatible with each of the overlay designations is included in Table 3-2.

TABLE 3-2
OVERLAY DESIGNATION ZONING CONSISTENCY MATRIX: table.

OVERLAY DESIGNATION	ZONING DESIGNATION
Biological Importance	All
Restorable Wetlands	All
Historic/Cultural	All
Floodway	All
Floodplain	All
Landfill/Septage Disposal Sites	All
Groundwater Recharge	All
Streamside Protection	All

Three types of development areas have been identified in the Policy Plan: areas within Urban Limit Lines, Local Service Centers, and Development Nodes along Interstate 5. These areas are shown on the Land Use Diagram and described below. It is the intent of the County to direct development into these areas and away from more valuable agricultural lands.

3.0.1 Open Space/Public Lands

Definition and Purpose: The Open Space/Public Lands: definition classification is used to identify areas having open space value as primitive or natural areas; to identify areas in public ownership which are reserved for wilderness use or as a wildlife or nature preserve; to retain certain lands in a natural or undisturbed state; to identify lake recreation areas and to provide for use of these areas for active or passive public recreation purposes.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: wildlife or nature preserves; passive, non-intensive recreational uses; public campgrounds; public parks; and important natural resource areas.

Standards for Population Density and Building Intensity: Open Space/Public Lands: Areas designated as Open Space/Public Lands shall not be utilized for permanent residences.

3.0.2 Foothill Agriculture/Forestry

Definition and Purpose: The Foothill Agriculture/Forestry: definition classification is used to preserve foothill areas of the county by providing for areas of intensive and extensive agricultural uses; to protect grazing land; to protect timber and forest lands economically suitable

for logging; and to promote and encourage the use of forest lands for multiple purposes such as preserving wildlife, hunting, hiking, or other compatible uses.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: grazing; animal raising operations; growing and harvesting timber; uses directly related to growing, harvesting and processing forest products; growing and harvesting agricultural crops; uses directly related to growing, harvesting and processing agricultural products; and hunting lodges, clubs and camps.

Standards for Population Density and Building Intensity: Foothill Agriculture/Forestry: The minimum parcel size shall be one hundred sixty (160) acres. Population density shall not exceed 12 persons per square mile (640 acres) and building intensity shall not exceed one permanent residence for every 160 acres.

3.0.3 Intensive Agriculture

Definition and Purpose: The Intensive Agriculture: definition classification is used to identify areas suitable for commercial agriculture which provide a major segment of the county's economic base; to protect the agricultural community from encroachment of unrelated agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community; to accommodate lands under Williamson Act contracts; to encourage the preservation of agricultural land, both in production and potentially productive, which contain State-designated Important Farmlands or Locally Significant Farmlands.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: growing and harvesting field crops, grain and hay crops; growing and harvesting fruit and nut trees, vines and vegetables; pasture and grazing land; and animal raising operations.

Standards for Population Density and Building Intensity: Intensive Agriculture: The minimum parcel size shall be forty (40) acres. Population density shall not exceed 100 persons per square mile (640 acres) and building intensity shall not exceed one residential unit per forty (40) acres except that housing for farm labor and senior citizens in excess of the above standard may be permitted subject to permitting procedures established in the Glenn County Zoning Code.

3.0.4 General Agriculture

Definition and Purpose: The General Agriculture: definition classification is used to identify those areas where it is desirable to retain agriculture as the primary land use.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: growing and harvesting field crops, grain and hay crops; growing and harvesting fruit and nut trees, vines and vegetables; pasture and grazing land; and animal raising operations.

Standards for Population Density and Building Intensity: General Agriculture: The minimum parcel size shall be twenty (20) acres. Population density shall not exceed 200 persons per square mile (640 acres) and building intensity shall not exceed one residential unit per twenty (20) acres except that housing for farm labor and senior citizens in excess of the above standard

may be permitted subject to permitting procedures established in the Glenn County Zoning Code.

3.0.5 Agriculture/Residential

Definition and Purpose: The Agriculture/Residential: definition classification is utilized to identify areas suitable for agricultural use and to provide for residential development with a range of densities compatible with a rural character and life-style; to use as a transition from Rural Residential to Intensive Agriculture; and to provide areas for "hobby farms".

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: growing and harvesting field crops, grain and hay crops; growing and harvesting fruit and nut trees, vines and vegetables; pasture and grazing land; domestic livestock farming on a limited scale; single family residential uses; and home occupations.

Standards for Population Density and Building Intensity: Agriculture/Residential: The minimum parcel size shall be ten (10) acres. Population density shall not exceed 400 persons per square mile (640 acres) and building intensity shall not exceed one residential unit per ten (10) acres except that housing for senior citizens in excess of the above standard may be permitted, subject to permitted procedures established in the Glenn County Zoning Code.

3.0.6 Rural Residential

Definition and Purpose: The Rural Residential: definition classification is utilized to identify areas suitable for large lot, low density residential use that provide for development which is compatible with a rural character and life-style.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: single-family residences; agricultural and domestic livestock farming on a limited scale; and home occupations.

Standards for Population Density and Building Intensity: Rural Residential: The minimum parcel size shall be five (5) acres. Population density shall not exceed 800 persons per square mile (640 acres) and building intensity shall not exceed one residential unit per five (5) acres except that housing for senior citizens in excess of the above standard may be permitted, subject to the permitting procedures established in the Glenn County Zoning Code.

3.0.7 Suburban Residential

Definition and Purpose: The Suburban Residential: definition classification is utilized to identify areas suitable for smaller lots, yet rural in character, and to provide for development that is compatible with subdivisions in a suburban setting.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: single-family residences; agricultural and domestic livestock farming on a limited scale; and home occupations.

Standards for Population Density and Building Intensity: Suburban Residential: The minimum parcel size shall be one (1) acre with building intensity not exceeding one residential unit per net acre. In areas containing gravelly soils similar to those found in the West Orland area, the minimum parcel size shall be two (2) acres with building intensity not exceeding one residential unit per two net acres. In addition, housing for senior citizens in excess of the above standard may be permitted, subject to the permitting procedures established in the Glenn County Zoning Code. Population density shall not exceed 4,000 persons per square mile (640 acres), except in gravelly soil areas where population density shall not exceed 2,000 persons per square mile.

3.0.8 Single Family Residential

Definition and Purpose: The Single Family Residential classification is utilized to provide areas suitable for development of dwelling units intended for occupancy by only one household, and physically independent from other dwelling units or structures.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: "traditional" single-family detached housing; mobilehome subdivisions; mobilehome parks; and planned residential developments.

Standards for Population Density and Building Intensity: Single Family Residential: The minimum parcel size shall be 6,000 square feet. Population density shall not exceed 8,000 persons per square mile (640 acres) and building intensity is limited to one main dwelling unit per parcel and shall not exceed six (6) residential units per net acre except that in areas served by public sewer and water systems with adequate capacity; one second dwelling unit may be permitted subject to the permitting procedures established in the Glenn County Zoning Code. The maximum height of structures shall be thirty feet (30'). The maximum lot coverage shall be forty percent (40%) except in areas with slopes of more than 30 percent (30%), where the maximum lot coverage shall be thirty percent (30%).

3.0.9 Multiple Family Residential

Definition and Purpose: The Multiple Family Residential classification is utilized to provide for areas suitable for development of structures containing more than one dwelling unit, including duplexes and triplexes.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: attached housing; apartments; group housing; condominiums; mobilehome parks; and planned residential developments.

Standards for Population Density and Building Intensity: Multiple Family Residential: The minimum parcel size shall be 6,000 square feet. Population density shall not exceed 16,000 persons per square mile (640 acres) and building intensity may range from eight (8) residential units per net acre to fifteen (15) dwelling units per net acre. The maximum height of structures shall be forty-five feet (45'). The maximum lot coverage shall be forty percent (40%) for single story buildings; thirty-five percent (35%) for two story buildings; and thirty percent (30%) for three story buildings.

3.0.10 Local Commercial

Definition and Purpose: The Local Commercial: definition classification provides for the designation of areas for small, localized retail, recreational and service businesses which provide goods and merchandise serving the immediate surrounding area.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: eating and drinking establishments; food and beverage retail sales; limited personal, medical, professional and repair services; and retail sales. Such facilities may range from a single use to a cluster of uses.

Standards for Population Density and Building Intensity: Local Commercial: Areas designated as Local Commercial shall not be utilized for permanent residences. The minimum parcel size shall be 8,000 square feet. Structures shall not cover more than forty percent (40%) of the site if single-story or thirty percent (30%) of the site if multi-story, or be higher than thirty feet (30').

3.0.11 Community Commercial

Definition and Purpose: The Community Commercial: definition classification provides for a full range of commercial retail and service establishments. Community Commercial areas should satisfy a variety of personal needs as well as those of other nearby businesses.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: gasoline service stations; hardware stores; eating and drinking establishments;

food and beverage sales; public buildings; general merchandise stores; professional offices; and finance offices. Community Commercial uses also include agricultural supply and commodities sales; veterinary services; and other agricultural-related services.

Standards for Population Density and Building Intensity: Community Commercial: Areas designated as Community Commercial shall not be utilized for permanent residences. The minimum parcel size shall be 8,000 square feet. Structures shall not cover more than fifty percent (50%) of the site or be higher than thirty-five feet (35').

3.0.12 Service Commercial

Definition and Purpose: The purpose of the Service Commercial: definition classification is to provide areas suitable for heavier commercial uses involving outdoor storage, display and work activity.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: automotive-related or heavy equipment services and sales; lumber yards; machine shops; trucking terminals/ printing/publishing facilities; and warehousing. The Service Commercial classification may be used in agriculturally-designated areas where it provides an area for agricultural equipment sales and services; wholesale commodities sales; and other agricultural-related service and commercial uses.

Standards for Population Density and Building Intensity: Service Commercial: Areas designated as Service Commercial shall not be utilized for permanent residences. The minimum parcel size shall be 12,500 square feet. Structures shall not cover more than seventy-five percent (75%) of the site or be higher than thirty-five feet (35'), unless developed as part of a Planned Development. Outdoor storage shall be screened and generally shall not exceed fifty percent (50%) of the gross floor area.

3.0.13 Highway and Visitor Service Commercial

Definition and Purpose: The purpose of the Highway and Visitor Service Commercial: definition classification is to provide sites to serve the commercial needs of travelers and visitors to the county.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: travel-related services such as gasoline service stations, truck stops, food and

beverage sales, eating and drinking establishments and lodging located along major streets, major collectors, and major highways for travelers. Resort development is appropriate under this designation, as are other types of development that would attract visitors to the county.

Standards for Population Density and Building Intensity: Highway and Visitor Service Commercial: Areas designated as Highway and Visitor Service Commercial shall not be utilized for permanent residences except for those units required for caretaker and/or employee housing incidental to hotel or motel uses. The minimum parcel size shall be 8,000 square feet. Structures shall not cover more than fifty percent (50%) of the site or be higher than thirty feet (30'), unless developed as part of a Planned Development.

3.0.14 Industrial

Definition and Purpose: The purpose of the Industrial: definition classification is to provide for a range of manufacturing operations; the processing of natural resources; and the processing of agricultural products. The intent is to encourage appropriate industrial/manufacturing development that will be compatible with adjacent land uses and will not create adverse environmental impacts.

Permitted Uses: Examples of uses which are be considered appropriate under this classification include, but are not limited to: light manufacturing uses; uses permitted in the Service Commercial category; fabrication shops; large warehouses; equipment storage yards; distribution sales; batch plants; lumber mills; auto wrecking, salvage and junk yards; fuel tank farms; and energy facilities.

Standards for Population Density and Building Intensity: Industrial: Areas designated as Industrial shall not be utilized for permanent residences. The minimum parcel size shall be 10,000 square feet. Structures shall not cover more than seventy-five percent (75%) of the site or be higher than forty-five feet (45'), unless developed as part of a Planned Development. Outdoor storage shall be completely screened and shall not exceed one hundred percent (100%) of the gross floor area of all structures.

3.0.15 Business Park

Definition and Purpose: The purpose of the Business Park: definition classification is to strengthen and enhance industrial and business development potential by designating areas where adequate infrastructure can be provided to support new industries or the relocation of industries, and a "workplace use" environment can be provided.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: offices; research and development parks; light industrial parks; warehousing; health clubs and gymnasiums; small proprietary industries; "incubator" businesses and industries; and incidental retail uses.

Standards for Population Density and Building Intensity: Business Park: Areas designated as Business Park shall not be used for permanent residential uses. The minimum parcel size shall one (1) acre. Structures shall not cover more than thirty percent (30%) of the site or be higher than forty-five feet (45').

3.0.16 Public Facilities

Definition and Purpose: The purpose of the Public Facilities: definition classification is to provide areas for development of public facilities to meet public needs.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: institutional, academic, governmental and community services, either publicly-owned or operated by non-profit organizations, such as fire stations, parks and community centers.

Standards for Population Density and Building Intensity: Public Facilities: Areas designated as Public Facilities shall not be utilized for permanent residences. The minimum parcel size shall be 6,000 square feet. Structures shall not cover more than fifty to seventy-five percent (50 to 75%) of the site or be higher than forty-five feet (45').

3.0.17 Recreation

Definition and Purpose: The Recreation: definition classification is used to identify areas having open space value for recreation purposes and provide for utilization of these areas for public or private recreational development.

Permitted Uses: Examples of uses which are considered appropriate under this classification include, but are not limited to: private and public campgrounds; private and public parks or playgrounds; water-related recreation activities; golf courses and/or driving ranges; restaurants; recreationally-related commercial activity; outdoor theaters; ball parks; and race tracks.

Standards for Population Density and Building Intensity: Recreation: Areas designated as Recreation shall not be utilized for permanent residences. The minimum parcel size shall be five (5) acres. Structures shall not cover more than twenty percent (20%) of the site or be higher than thirty feet (30').

3.0.18 Special Overlay Designations: listing.

Biological Importance: This overlay designation reflects areas of biological importance in Glenn County which are critical to the preservation of plant and animal life. The purpose of the designation is to identify areas where certain types of development may have an adverse impact on biological resources. In some instances, development should not occur; in others, development should occur only when it can be shown that proper protection of resources will be achieved either through mitigation or compensation. Areas identified include the Sacramento River corridor, the Sacramento National Wildlife Refuge, migratory deer herd range, naturally occurring wetlands, and stream courses such as Butte and Stony Creeks. In addition to these general areas, twelve specific sites have been identified as discussed in Section 2.4.2 of the Environmental Setting Technical Paper (Figure 3-14).

Restorable Wetlands: This overlay designation reflects those areas approved by the Glenn County Board of Supervisors, by Resolution No. 92-56, for waterfowl or wetland habitat easement acquisition by the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service proposes to acquire easements, upon a willing seller basis, using Migratory Bird Conservation

Funds in accordance with the North American Waterfowl Management Plan and Central Valley Habitat Joint Venture Implementation Plan (Figure 3-15).

Historic/Cultural: This overlay designation reflects those areas of unique historical or cultural value within Glenn County. The purpose of this designation is to preserve those sites identified for educational, scientific and aesthetic purposes (Figure 3-16).

Floodplain: This overlay reflects those areas which are subject to flooding in a 100 year storm as determined by the Federal Emergency Management Agency. The purpose of this designation is to identify those areas in which special precautions should be taken to ensure that structures and other property are not exposed to undue risk of flood during periods of heavy rainfall and runoff (Figure 3-17).

Floodway: Floodways are areas necessary for the safe passage of water during periods of high flow, and are based on State Reclamation Board Designated Floodway maps. Such areas should be carefully regulated to protect them from encroachment by structures or other modifications which would impede the flow of water. They are also areas in which close coordination with the State Reclamation Board is required (Figure 3-18).

Groundwater Recharge: This overlay identifies an area with very high groundwater recharge value. Groundwater recharge areas should be protected from excessive overcovering and the County should ensure that septic systems and other potential sources of groundwater pollution are carefully regulated and monitored. Groundwater recharge areas also identify areas potentially rich in aggregate resources. Included within the groundwater recharge overlay area is the Stony Creek Fan (Figure 3-19).

3.0.19 Development Areas: delineation.

Urban Limit Lines: This designation reflects the boundary around cities and unincorporated communities within which urban development will be directed. These lines represent those areas where growth can be accommodated because full urban services and infrastructure sufficient to serve development is either available or can be made available within the planning period.

Urban Limit Lines are not to be confused with Spheres of Influence as administered by the Local Agency Formation Commission. A Sphere of Influence is defined as "...the probable ultimate physical boundary and service area of a local agency, as determined by the (Local Agency Formation) commission." They are also distinct from city limit lines, and may include territory within city limits as well as unincorporated areas. When unincorporated area is included within an Urban Limit Line adjacent to a city, there is no obligation on the part of the affected city to plan for or to serve the subject area.

Local Service Centers: This designation reflects those rural communities which have developed with a mixture of residential and commercial uses, and function as a service center for surrounding farms and rural areas. Local service centers provide a limited range of goods and services locally and provide housing for persons who are employed on local farms and in agriculturally-related activities. Community sewer and water do not exist in these communities and are not proposed within the life of this Plan. It is intended that no peripheral expansion will occur in these areas; only infill development will be allowed after case-by-case evaluation.

I-5 Development Nodes: This designation reflects designated development nodes along the Interstate 5 corridor where development may occur. These areas have been identified because of their potential for development due to their location at existing freeway interchanges. Before actual development may occur, proposals will be evaluated on their merit in compliance with policies and standards established in this General Plan.

General Plans of Development that have been approved by the Board of Supervisors for specific locations are as follows:

- The 366.71 acre site located on the southwest corner of I-5 and Road 27 shall be developed for a golf course, recreational vehicle park, motel, restaurant and other highway visitor serving commercial and recreational uses and a farm products store.

Other General Plans of Development to be approved by the Board of Supervisors will be described in this Section.

3.1. CIRCULATION SYSTEM CLASSIFICATIONS.

A five-level functional classification system has been created for roads within Glenn County as follows: Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector, Rural Minor Collector, and Rural Local. In addition, a five-level functional classification system has been created for roads inside the urban areas of Orland and Willows, as follows: Urban Principal Arterial, Urban Minor Arterial, Urban Major Collector, Urban Minor Collector, and Urban Local. These classifications are shown on the Circulation Diagram (Figures 3-20 through 3-24 at the end of this Section).

The rural functional classification system applies outside of the urban area boundaries established by the U.S. Census for Orland and Willows (Figures 3-21 and 3-22), and the urban functional classification system applies within these boundaries. Urban area boundaries are established only for areas that have populations of 5,000 or greater and, at the present time, are limited to Willows and Orland.

3.1.1 Rural Principal Arterial: definition.

Functions Served: Interstate highway or roadway connecting a principal arterial with cities of 50,000 population or greater or two or more cities with 50,000 population or greater. Emphasis is on through traffic but some shorter trips occur to or from major trip generators.

Adjacent Land Development: Minimize driveways. No access to residential lots.

Traffic Volume: Approximately 10,000 vehicles per day throughout route. A significant percentage of trip lengths greater than 20 miles.

Travel Speed: 55 mph (non-Interstate), 65 mph (Interstate).

Design Options: 2/3-lane undivided, 4/5-lane undivided, 4/6-lane divided.

3.1.2 Rural Minor Arterial: definition.

Functions Served: Integrated intercounty road connecting major communities (3,000 to 50,000 population) or principal/minor arterials with adequate spacing from other arterials. Relatively equal mix of through and local traffic.

Adjacent Land Development: Provide adequate spacing for driveways. Minimize on-street parking. Large setbacks for residences and businesses.

Traffic Volume: Approximately 2,500 to 10,000 vehicles per day throughout route.

Travel Speed: 55 mph.

Design Options: 2-lane undivided.

3.1.3 Rural Major Collector: definition.

Functions Served: Primarily intracounty travel serving smaller communities (less than 2,500 population) and countywide trip generators, such as consolidated schools, freeway interchanges, major shipping terminals, major recreational facilities, and concentrations of commercial/industrial activity. Provides an integrated network with other major collectors and arterials with spacing of three to five miles in rural areas and one to three miles in urban areas. Trip lengths may be comparable to those of minor arterials in low density areas. Emphasis on local traffic but some through traffic, especially in low-density areas.

Adjoining Land Development: Minimize single driveways for residences. Minimize on-street parking. Medium-scale commercial/industrial development permissible.

Traffic Volume: Approximately 500 to 2,500 vehicles per day throughout route.

Travel Speed: 45 to 55 mph.

Design Options: 2-lane undivided.

3.1.4 Rural Minor Collector: definition.

Functions Served: Carries traffic from residential subdivisions/settlements, farms, logging operations, and other local area trip generators to higher classification roads. Trip lengths are significantly less than those for major collectors. Recommended spacing of one to three miles between major collectors. Small percentage of through traffic.

Adjoining Land Development: Mix of single driveways and common driveways/local roads for groups of dwelling units. On-street parking acceptable where appropriate. Small-scale commercial/industrial development permissible.

Traffic Volume: Approximately 200 to 1,000 vehicles per day depending upon extent of development.

Travel Speed: 35 to 45 mph.

Design Options: 2-lane undivided.

3.1.5 Rural Local Road: definition.

Functions Served: Access to adjoining property, primarily residences, farms, or resource extraction operations. Virtually no through traffic.

Adjoining Land Development: Primarily residences facing street with single-residence driveways. On-street parking desirable except for estates and rural areas. No commercial or industrial development.

Traffic Volumes: Approximately 50 to 500 vehicles per day.

Travel Speed: 25 to 30 mph.

Design Options: 2-lane undivided.

3.1.6 Urban Principal Arterial: definition.

Functions Served: Serves traffic passing through the urban area. An extension of a Rural Principal Arterial or a Rural Minor Arterial with Significant increases in traffic within the urban area.

Adjacent Land Development: Minimize driveways. Minimize access to small residential lots. On-street parking discouraged.

Traffic Volume: Above 10,000 vehicles per day throughout route. Significant percentage of trip lengths pass through the urban area.

Travel Speed: 25 to 35 mph.

Design Options: 3/5 lanes undivided with curbs and sidewalks.

3.1.7 Urban Minor Arterial: definition.

Functions Served: Serves traffic passing through urban areas. Extension of Rural Minor Arterials into urban area until volumes significantly increase or extension of Rural Major Collectors that extend through urban areas without significant increase in traffic.

Adjacent Land Development: Adjoining land primarily commercial, industrial, retail, or high-density residential. On-street parking discouraged.

Traffic Volume: Approximately 2,500 to 10,000 vehicles per day throughout route.

Travel Speed: 25 to 35 mph.

Design Options: 2/3 lanes undivided with curbs and sidewalks.

3.1.8 Urban Major Collector: definition.

Functions Served: Serves primarily intracity traffic with trips of one-half to two miles in length. Extension of Rural Minor Collector with increase of traffic in the urban area. Connects to roads of higher classifications.

Adjoining Land Development: Serves adjoining medium-to-high density residential, commercial, retail, and industrial uses. Suitable for public institutions, including high schools. On-street parking encouraged with or without off-street lots.

Traffic Volume: Approximately 500 to 2,500 vehicles per day throughout route.

Travel Speed: 25 to 30 mph.

Design Options: 2-lane undivided with curbs and sidewalks.

3.1.9 Urban Minor Collector: definition.

Functions Served: Serves intra-urban traffic of approximately one-quarter to one-mile in length. Connects to roads of higher classification. Small percentage of through traffic. On-street parking desirable.

Adjoining Land Development: Low-density commercial, retail, and/or residential development. Suitable for elementary schools and other public facilities, such as parks.

Traffic Volume: Approximately 200 to 1,000 vehicles per day depending upon extent of development.

Travel Speed: 25 mph.

Design Options: 2-lane undivided with curbs and sidewalks.

3.1.10 Urban Local Road: definition.

Functions Served: Local access to adjoining property with trip lengths to roads with higher classifications of one-quarter mile or less. Virtually no through traffic. On-street parking desirable.

Adjoining Land Development: Primarily residential, although small scale retail adjacent to roads with higher classifications possible.

Traffic Volumes: Approximately 50 to 500 vehicles per day.

Travel Speed: 25 mph.

Design Options: 2-lane undivided with curbs and sidewalks.

3.1.11 Planned Circulation System Improvements and Functional Classifications

Table 3-3 presents the General Plan roadway classifications, lane requirements, and levels of service for selected arterial and collector streets. Level of service: definition (LOS) is a concept

utilized to evaluate whether individual intersections and roadway segments will maintain satisfactory operating conditions. Utilizing LOS, an A level implies uncongested operations, while an F level means a total breakdown in traffic flow. Table 3-4 presents 1990 daily traffic volumes and traffic forecasts for arterial streets within the unincorporated area of Glenn County. Tables 3-5 and 3-6 present the same information for major collector streets and minor collector streets, respectively. Streets that are not identified as arterials or collectors are classified as local roads.

As noted in the descriptions of the functional classifications systems, local and collector roads have two travel lanes and arterials have from two to six lanes, depending upon the traffic volumes. The required right-of-way for a given road depends upon the number of lanes and the responsible agency rather than the functional classification. Table 3-7 below summarizes right-of-way requirements for lane configurations as contained in current (1992) road design standards for agencies responsible for road construction in Glenn County. Note that the two- and four-lane standards are the same for the cities of Willows and Orland and Glenn County. For situations where there is no standard, the actual right-of-way can vary depending upon design features, topography, and land availability and is established through procedures contained in Title 17 of the Glenn County Code and Title 20 of the Glenn County Administrative Code.

The following are typical cross-sections for the various types of County roads:

**TABLE 3-3
CLASSIFICATION, LANE REQUIREMENTS AND LEVELS OF SERVICE FOR
SELECTED ROADWAYS**

Roadway Segment	Classification	Improved Conditions				Existing Conditions		With Improvements		Improvement Description
		2-Way Lanes	Lane Width (Ft.)	Shoulder Width (Ft.)	No Pass Zone (0-100)	Peak Hour V/C	Level of Service	Peak Hour V/C	Level of Service	
Rte 162 E of I-5	Minor Arterial	2	12	4	60	0.22	C	0.21	C	Widen Shoulder
Rte 162 E of 45	Minor Arterial	2	12	4	20	0.19	B	0.18	B	Widen Shoulder
Rte 162 E of 306	Major Collector	2	12	4	20	0.10	A	0.10	A	Widen Shoulder
Rte 45 N of Hwy 162 E	Minor Arterial	2	12	4	20	0.14	B	0.14	B	Widen Shoulder
Rte 45 N of Rd 39	Minor Arterial	2	12	4	20	0.14	B	0.14	B	Widen Shoulder
Rte 45 S of Rte 32	Minor Arterial	2	12	4	20	0.18	B	0.18	B	Widen Shoulder

Rte 32 E of I-5	Principal Arterial	2	12	4	20	*0.63	E	0.31	A	4 thru lanes
Rte 32/6th St, Orland	Principal Arterial	2	12	4	20	*0.92	E	0.46	B	Re-alignment
Rte 32 E of 6th, Orland	Principal Arterial	2	12	4	20	*1.05	F	0.52	C	4 thru lanes
Rte 32 E of Rte 45, Hamilton City	Principal Arterial	2	12	4	20	*0.97	E	0.48	B	4 thru lanes
I-5 N of Rte 162	Principal Arterial	4	12	8	0	0.54	C	0.46	B	None
I-5 N of Road 68	Principal Arterial	4	12	8	0	0.42	B	0.36	B	None
I-5 N of Road 57	Principal Arterial	4	12	8	0	0.44	B	0.37	B	None
I-5 N of Road 39	Principal Arterial	4	12	8	0	0.48	B	0.41	B	None
I-5 N of Road 33	Principal Arterial	4	12	8	0	0.47	B	0.40	B	None
I-5 N of Road 27	Principal Arterial	4	12	8	0	0.47	B	0.40	B	None
I-5 N of Road 32	Principal Arterial	4	12	8	0	0.56	C	0.47	B	None
I-5 N of Road 7	Principal Arterial	4	12	8	0	0.58	C	0.50	B	None
I-5 N of Road 16	Principal Arterial	4	12	8	0	0.54	B	0.46	B	None
Road 16 W of Rd M	Minor Collector	2	12	2	20	0.16	B	0.16	B	Widen Shoulder
Road 16 at Overpass	Minor Collector	2	12	2	20	0.14	B	0.14	B	Widen shoulder
Road 16 E of 99W	Minor Collector	2	12	2	20	0.23	B	0.23	B	Widen Shoulder
Road 33 W of Bridge	Major Collector	2	12	2	20	0.22	B	0.22	B	Widen Shoulder

Road 39 E of Rd P	Major Collector	2	12	2	20	0.12	B	0.12	B	Widen Shoulder
Hwy 99W N of Rd 20	Minor Arterial	2	12	2	20	*0.43	D	*0.4 0	D	Widen Shoulder, LT Lanes
Hwy 99W N of Rd 24	Minor Arterial	2	12	2	20	*0.47	D	*0.4 3	D	Widen Shoulder, LT Lanes
Hwy 99W N of Rd 27	Minor Arterial	2	12	2	20	0.17	B	0.16	B	Widen Shoulder
Hwy 99W N of Blue Gum	Minor Arterial	2	12	2	20	0.21	B	0.20	B	Widen Shoulder
Hwy 99W S of Rd 33	Minor Arterial	2	12	2	20	0.17	B	0.16	B	Widen Shoulder
Hwy 99W S of Rd 39	Minor Arterial	2	12	2	20	0.29	C	0.27	C	Widen Shoulder, LT Lanes
Hwy 99W N of Rd 33	Minor Arterial	2	12	2	20	0.20	B	0.18	B	Widen Shoulder
Hwy 99W N of Rd 39	Minor Arterial	2	12	2	20	0.24	B	0.22	B	Widen Shoulder, LT Lanes
Hwy 99W S of Rd 35	Minor Arterial	2	12	2	20	0.31	C	0.28	C	Widen Shoulder, LT Lanes
Hwy 99W N of Rd 25	Minor Arterial	2	12	2	20	*0.40	D	0.37	C	Widen Shoulder, LT Lanes
Hwy 99W N of Rd 48	Minor Arterial	2	12	2	20	0.33	C	0.31	C	Widen Shoulder, LT Lanes
Road 200 W of I-5	Minor Arterial	2	12	2	20	0.37	C	0.35	C	Widen Shoulder, LT Lanes
Hwy 99W S of Rd 48	Minor Arterial	2	12	2	20	0.29	C	0.27	C	Widen Shoulder, LT Lanes
Road 200 E of Rd MM	Major Collector	2	12	2	20	0.16	B	0.15	B	Widen Shoulder, LT Lanes

Hwy 99W S of Garden St	Minor Arterial	2	12	2	20	0.35	C	0.32	C	Widen Shoulder, LT Lanes
Road 200 E of Rd 12	Minor Arterial	2	12	2	20	*0.48	D	*0.45	D	Widen Shoulder, LT Lanes

Legend: H=Highway; F=Freeway; V/C=volume/capacity

* Level of Service D, E, or F

Source: Dowling Associates, 1992.

TABLE 3-4
ARTERIALS
TRAFFIC VOLUME

Road	Roadway Segment	Miles	1990 Daily Traffic Volumes	AADT* Forecast
PRINCIPAL ARTERIALS				
Interstate 5	Colusa County - Tehama County (passes through Willows and Orland Urban Areas)	28.82	18900 -21100	26400-30200
Highway 32	Interstate 5 - Butte County (passes through Orland Urban Area)	11.32	7200-12000	14800-24300
Total Principal Arterial Mileage (Includes mileage within urban boundaries)		40.14		
MINOR ARTERIALS				
State Highway 45	Highway 32 - Colusa County	23.21	1800-2600	2500-3600
State Highway 162	Central Irrigation Canal (Willows Urban Boundary) - Highway 45	9.07	1700-2850	2400-5400
	Highway 45 - Butte County	8.32	1650-2550	850-3600
Road 99W	Road 9 - Orland Urban Boundary North	0.53	2000 (est.)	3610
	Road 20 (Orland Urban Boundary South) - Road 48 (Willows Urban Boundary North)	10.39	2050-4975	3705-8985
	Road 57 (Willows Urban Boundary South) - Road 60	2.59	2000 (est.)	2990
Road 200W	Interstate 5 - Road E	2.07	3000-7000	5420-12645
Total Rural Minor Arterial Mileage		56.18		

Road	Roadway Segment	Miles	1990 Daily Traffic Volume	AADT Forecast
Road 200 (Newville Road)	Orland Urban Area -Road P	1.55	950	1715
	Road E - west to Tehama County	4.90	500-850	905-1535
	Tehama County - Road 306	4.32	325	590
Road 99W	Road 9 - Tehama County	1.10	250	370
	Road 60 - Colusa County	5.60	225	335
Road 9 (Wyo Avenue)	Road 99W - Canal Road	8.86	450-1200	670-1785
Sixth Avenue (Road 202)	Tehama County -Highway 32	4.01	375	555
Canal Road (Road 203)	Road 9 - Highway 32	1.64	1375	2045
Road P	Highway 32 - Road 33	8.76	275-500	410-745
Road 24	Road 99W - Highway 45	10.39	275-500	410-745
Road 27	Interstate 5 - Road 99W	0.44	500	745
Road 32 (Ord Ferry Road)	Highway 45 - Butte County	0.80	2800	4160
Road 33	Road D - Road P	5.98	600	890
Road P	Road 33 - Road 60	10.96	150-500	225-745
Road 39 (Bayliss Blue Gum Road)	Road D - Highway 45	13.35	900-1500	1335-2230
Road 60/Road 61 (Riz Road)	Road 99W - Highway 45/162	9.37	400-800	595-1190
Road Z/Road 48	Highway 162 - Butte County	5.56	350-500	520-745
Road S	Road 24 - Highway 32	2.83	625	930
Road 68 (Norman Road)	Interstate 5 - Colusa County	3.01	225	335
Road D	Highway 162 - Road 33	6.96	325-925	485-1375
Highway 162	Willows Urban Boundary West - Road 306 South	19.89	680-2550	1610-6035
	Road 306 South - Road 306 North	3.61	530	1255
	Road 306 North - Road 406	3.73	360	850
Road 306	Highway 162 South -Colusa County	10.17	225-350	530-830
	Highway 162 North -Road 200	18.00	250-350	590-830
Road 406 (Forest Highway 7)	Highway 162 - Road 307	12.60	No data	800
Road 307 (Forest Highway 7)	Road 406 - Mendocino County	23.43	No data	600
Total Major Collector Mileage		205.82		

* Average Annual Daily Traffic = 500 - 3,000 vehicles per day.

Source: Dowling Associates, 1992.

TABLE 3-6
MINOR COLLECTORS*
TRAFFIC VOLUME

Road	Roadway Segment	Miles	1990 Daily Traffic Volume	AADT Forecast
Road E (Olive Avenue)	Road 200 - Road 20 (Sunset Road)	2.58	150	225
Road H	Road 15 - Road 16	0.25	575	855
Road 7	Road 99W - Interstate 5	0.36	425	630
Road 20 (Sunset Road)	Road E - Orland Urban Area Boundary West (Interstate 5)	1.78	525-725	780-1080
Road M	Road 20 - Road 33	6.56	150-400	225-595
Road 15	Road E - Road H	1.23	200-475	300-705
Road 16	Road H - Orland Urban Boundary West (Interstate 5)	0.43	1,075	1600
Road 28	Road D - Road 99W	3.00	325	485
Road 29	Road V - Highway 45	3.10	350	520
Road 30	Road 99W - Road V	7.11	125-300	190-445
Road P	Highway 32 - north to Tehama County	3.17	100-700	150-1040
Road V	Road 29 - Road 57 (Peach Ave.)	11.47	225-300	335-445
Road 32	Road WW - Highway 45	1.60	225	335
Road 33	Road P East - Road S	1.77	250 (est.)	370
	Road D - West to End	2.58	200	300
Road WW	Road 32 - Road 39	3.25	175	260
Road 48	Road D - Willows Urban Area Boundary (Interstate 5)	1.97	825	1225
	Willows Urban Area Boundary (Interstate 5) - Road 47	0.63	350	520
Road 47	Road 48 - Road MM	0.59	350	520
Road MM	Road 47 - Road 45	0.71	300	445
Road 45	Road MM - Road S	3.37	325	485
Road S	Road 24 - Road 33	6.06	250 (est.)	370
	Road 45 - Road 44	0.36	150 (est.)	225
Road 59 (Willow Ave.)	Ruff Lane (Road VV) - Highway 45	1.97	100	150
Road VV (Ruff Lane)	Road 57 - Road 59	0.81	75	110
Road WW	Highway 162 - Road 66B	3.25	75 (est.)	110
Road V	Road 61 - Road 66B	2.02	75 (est.)	110
Road 66B	Road V - Highway 45	2.93	75	110
Road XX	Colusa County - Road 67	2.56	100 (est.)	150
Road 67	Road XX - Butte County	7.10	100-425	150-630
Road Y	Highway 162 - Road 67	3.16	450	670

Road Z	Highway 162 - Road 68	3.02	100-170	150-250
Road 57	Road D - Willows Urban Area Boundary (Interstate 5)	3.00	125-170	185-255
	Willows Urban Area Boundary East (Road M) - Road P	1.98	250	370
Road D	Highway 162 - Road 68	8.16	150 (est.)-350	225-520
	Road 33 - Road 25	5.00	75	110
Road 25	Road 99W - Road D	3.00	325-400	495-595
Road 68	Road D - Interstate 5	3.00	225	335
Road 302	Highway 162 - Road 303	5.93	50	75
Road 303	Highway 162 - Road 306	14.67	50	75
Road 305	Road 306 - East to End	2.58	75 (est.)	110
Road 200A/Road 206	Road 200 - West to End	11.70	150	225
Road 44	Road S - Highway 45	5.30	100	150
Road 57 (Peach Ave.)	Road V - Road VV (Ruff Lane)	0.59	125	190
Road 200	Road 306 - West to Tehama County	2.88	100	150
Road 203 (Canal Road)	Road 9 - Road 204	1.50	500	743
Road 2	Road 202 (6th Ave.) -Road 3 (Glenco Ave.)	3.40	100 (est.)	150
Road 3	Road 2 - Road 99W	0.62	150 (est.)	225
Road 4 (Cutler Ave.)	6th Ave. - Road W (1st Ave.)	3.60	150	225
Road T (4th Ave.)	Road 9 - north to Tehama County	2.50	250	370
Road W (1st Ave.)	Road 4 - Road 6	0.18	200	300
Road 6	Road W - Road 205	0.21	275 (est.)	410
Road 205	Road 6 - Road 204	0.24	275	410
Road 204 (Montgomery Ave.)	Road 205 - Road 203 (Canal Road)	0.40	400 (est.)	595
Total Minor Collector Mileage		171.19		

*Average Annual Daily Traffic (AADT) = 200 - 1,000 vehicles per day.

Source: Dowling Associates, 1992.

TABLE 3-7
 RIGHT-OF-WAY REQUIREMENTS
 BY NUMBER OF THROUGH LANES

Land Use Served	Agency	Local/Collector/ Minor Arterial	Principal Arterial	
			4 Lanes Undivided	4 Lanes Divided
All Highways	Caltrans	100 feet Minimum	No standard	No standard
Urban Developments	Glenn County	60 feet	84 feet	110 feet
	City of Willows	60 feet	84 feet	No standard
	City of Orland	60 feet	84 feet	110 feet
Urban Industrial Street	Glenn County	64 feet	No standard	No standard
	City of Orland	64 feet	No standard	No standard
Estate Developments	Glenn County	60 feet	84 feet	110 feet
Rural & Agricultural Developments	Glenn County	60 feet	84 feet	No standard

3.2. LAND USE AND CIRCULATION DIAGRAMS

This Section presents a description of the Land Use Diagram (consisting of Figure 3-1, inserted separately at the back of this document, and Figures 3-2 through 3-13), and the Circulation Diagram (Figures 3-20 through 3-24). The Land Use Diagram depicts the planned land use, and the Circulation Diagram depicts the planned circulation system for Glenn County through the year 2012, consistent with the goals, policies and implementation measures set forth in Section 5 of this document.

The Land Use Diagram details the distribution of land uses utilizing the classifications set forth in Section 3.0. The Diagram is composed of several parts in order to aid readability. A countywide diagram (Figure 3-1) encompasses all of the county, including its communities. The communities are, however, shown simply as "Urban Areas" on the countywide diagram with the reader referred to the appropriate Community Map for detail.

The Community Maps are depicted on Figures 3-2 through 3-13 which appear following this page. It is intended that the Community Maps be viewed as identical in force and effect to the countywide Land Use Diagram. Community Maps are provided for Artois, Butte City, Elk Creek, Hamilton City, Bayliss, Blue Gum, Capay, Cordora, Glenn, Ordbend, and the unincorporated areas around the cities of Orland and Willows. The planned land uses for the incorporated cities of Orland and Willows are not shown on the County's Plan and reference should be made to the relevant city plans for this information. The Policy Plan contains references to North Willows, Northeast Willows and West Orland. These areas are included on the Community Maps for the respective communities, except for the portion of West Orland situated outside the Orland Urban Limit Line. This portion of West Orland is depicted on the countywide Diagram.

Although not shown on the Land Use Diagram, the Special Overlay Designations (Figures 3-14 through 3-19) are to be reviewed in conjunction with the Land Use Diagram. As described in Section 3.0, these designations reflect special concerns such as floodplains, wetlands, etc. which represent potential constraints to development.

While an attempt has been made to follow parcel lines and physical features to the extent possible in the representations on the Maps and Diagram, it must be recognized that they are neither required to be as precise nor as specific as a zoning map and allowance is made for some interpretation based on site-specific circumstances.

The Circulation Diagram details the street classification system for Glenn County. It shows both rural arterials and collectors as well as urban arterials and collectors, as described in Section 3.1. Figure 3-20 shows the countywide circulation and street classification system, Figure 3-21 shows the system for the Orland Urban Area and Figure 3-22 shows the system for the Willows Urban Area.

In addition to arterials and collectors, certain local roads are shown on Figures 3-23 and 3-24. These roads, although not of regional importance, are necessary to the effective circulation of local traffic. Their inclusion on the Circulation Diagram provides a mechanism for assuring that the necessary rights-of-way are recognized and preserved as development occurs. All other existing roads not shown on the Diagram are also presumed to be local in nature.

SECTION 4 - IMPLICATIONS OF THE POLICY PLAN

Section 3 presents the General Plan land use classifications, minimum site area, building intensity and population density standards, as required by State law. The purpose of this Section is to translate these standards and the land use designations shown on the Land Use Diagram into data which quantify future development potential in Glenn County.

Table 4-1 contains estimates of existing and future acreage, square footage, dwelling units and population applicable to each land use classification, for the unincorporated area of the county outside urban limit lines. Tables 4-2 through 4-7 contain the same information for areas within urban limit lines and include estimates for the communities of Artois, Butte City, Elk Creek, Hamilton City, Willows and Orland respectively. Estimates for Orland and Willows do not include the area within present city limits. Tables 4-8, 4-9 and 4-10 contain a countywide summary of residential, commercial and industrial buildout potential.

Dwelling unit estimates are based on an average within the density range for each residential category. Actual densities upon development may be somewhat higher or lower, depending upon the availability of community sewer and/or water systems, site development constraints, and the actual development proposals that are approved. Footnotes to the tables explain the assumptions used.

The estimated population: year 2012 for the unincorporated area of the county in the year 2012 is 29,082 utilizing the Land Use Diagram and the assumptions contained in the tables. This is approximately 10 percent greater than the population assumption of 26,085 persons for the unincorporated area which was utilized in the development of the preferred alternative (see Section 2). It is, however, desirable to maintain flexibility in terms of General Plan holding capacity to assure adequate choice of sites. The 10 percent surplus of sites shown on the Land Use Diagram will provide the needed flexibility. It will be important to regularly update the Plan to ensure that adequate choice remains throughout the planning period. As a practical matter, because the Land Use Diagram presently projects a twenty year supply of residential sites, the Plan will have significant flexibility for a number of years. Individual communities may, however, experience a lack of developable land more rapidly, particularly if some major event unforeseen by the Plan should occur. Community plans should be developed, as resources permit, in order to more specifically address each individual community's needs.

On a countywide basis, the Land Use Diagram identifies more than three times as much potential commercial and industrial land as would normally be supported by the projected population. This provides more than adequate flexibility for such uses and ample opportunity for highway-oriented businesses that may benefit from the presence of I-5. It is also indicative of the large land area requirements of industry that is heavily tied to agriculture, mineral extraction, and raw materials processing.

These estimates of population and physical development form the basis for analysis of the environmental impacts associated with Plan buildout which are contained in Volume IV, the Environmental Impact Report. These estimates should also be kept in mind as the reader studies the entire General Plan.

In summary, the Policy Plan provides sufficient room to accommodate the 2012 projected population while allowing ample opportunities for expansion of the county's commercial and industrial base, in accordance with the preferred alternative.

Table 4-1

**GENERAL PLAN BUILDOUT
COUNTY - OUTSIDE URBAN LIMIT LINE**

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	16	3	9	19	28	78
Suburban Residential	428	270	182	68	250	700
Rural Residential	2,263	498	110	1,600	1,710	4,788
Agriculture/ Residential	765	574	62	-	62	174
General Agriculture	15,405	3,850	192	159	351	983
Intensive Agriculture	287,392	71,848	1,796	893	2,689	7,529
Foothill Agriculture/ Forestry	274,438	68,610	429	-	429	1,201
Timberland Production	30,000	-	-	-	-	
Open Space/Public Lands	214,919	-	-	-	-	
Public Facilities	2,215	-	-	-	-	
Recreation	80	-	-	-	-	
Local Commercial	60	31	396,679 S.F.	13,068 S.F.	409,747 S.F.	
Community Commercial	2	-	-	23,958 S.F.	23,958 S.F.	
Service Commercial	300	180	3,136,320 S.F.	1,393,920 S.F.	4,530,240 S.F.	
Highway & Visitor Commercial	500	80	958,320 S.F.	1,143,450 S.F.	1,339,470 S.F.	

Industrial	1,088	259	4,508,460 S.F.	4,356,000 S.F.	8,864,460 S.F.	
TOTAL	829,871	146,203	2,780	2,739	5,519	15,453

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production. Also, a portion of the projected population shown within the Intensive Agriculture category will be included within future development nodes.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- 10% of parcels will have additional housing for elderly.
- Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size: 1990 of 2.8 persons. (1990 census data).

Table 4-2

**GENERAL PLAN BUILDOUT
WITHIN ARTOIS URBAN LIMIT LINE**

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	196	138	912	57	908	2,542
Rural Residential	153	128	27	-	27	76
Community Commercial	23	14	167,706 S.F.	47,916 S.F.	215,622 S.F.	
Highway and Visitor Commercial	131	98	1,173,942 S.F.	-	1,173,942 S.F.	
Industrial	91	51	888,624 S.F.	400,752 S.F.	1,289,376 S.F.	
Public	.6	-	-	-	-	
Intensive Agriculture	17.5	-	-	-	-	-
TOTAL	612.1	429	939	57	935	2,618

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- °A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- °10% of parcels will have additional housing for elderly.
- °Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 2.8 persons. (1990 census data).

Table 4-3

**GENERAL PLAN BUILDOUT
WITHIN BUTTE CITY URBAN LIMIT LINE**

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	17	5	30	46	70	196
Community Commercial	2.7	2	17,969 S.F.	7,188 S.F.	25,157 S.F.	
Industrial	21	19	257,875 S.F.	21,432 S.F.	279,307 S.F.	
Public	.6	-	-	-	-	
TOTAL	41.3	26	30	46	70	196

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- 10% of parcels will have additional housing for elderly.
- Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 2.8 persons. (1990 census data).

Table 4-4

**GENERAL PLAN BUILDOUT
WITHIN ELK CREEK URBAN LIMIT LINE**

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	151	35	206	94	295	826
Local Commercial	6	3	39,204 S.F.	26,136 S.F.	65,340 S.F.	
Industrial	82	62	1,080,288 S.F.	-	1,080,288 S.F.	
Public	39	-	-	-	-	
General Agriculture	419	314	16	-	16	45
TOTAL	697	414	222	94	311	871

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- °A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- °10% of parcels will have additional housing for elderly.
- °Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 2.8 persons. (1990 census data).

Table 4-5

**GENERAL PLAN BUILDOUT
WITHIN HAMILTON CITY URBAN LIMIT LINE**

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
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Single Family Residential	132	45	264	434	679	2,444
Multiple Family Residential	17	-	-	71	71	256
Community Commercial	43	17	203,643 S.F.	191,664 S.F.	395,307 S.F.	
Highway and Visitor Commercial	9	2	19,657 S.F.	83,853 S.F.	103,510 S.F.	
Service Commercial	10	3	58,806 S.F.	52,272 S.F.	111,078 S.F.	
Industrial	284	80	1,385,208 S.F.	3,101,472 S.F.	4,486,680 S.F.	
Public	39	-	-	-	-	
General Agriculture	703	520	28	-	28	100
TOTAL	1,237	667	292	505	778	2,800

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- °A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- °10% of parcels will have additional housing for elderly.
- °Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 3.6 persons. (1990 census data).

Table 4-6

**GENERAL PLAN BUILDOUT
WITHIN WILLOWS URBAN LIMIT LINE***

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	126	35	208	195	403	1,128

Multiple Family Residential	25	9	116	206	322	902
Suburban Residential	407	185	182	226	408	1,142
Rural Residential	288	216	47	10	57	160
Service Commercial	34	9	156,816 S.F.	383,328 S.F.	540,144 S.F.	
Highway and Visitor Commercial	14	10.5	125,803 S.F.	-	125,803 S.F.	
Industrial	38	28.5	496,584 S.F.	-	496,584 S.F.	
Public	388	-	-	-	-	
Agriculture/ Residential	147	110	12	-	12	34
General Agriculture	153	115	7	6	13	36
Intensive Agriculture	1,034	259	7	10	17	48
TOTAL	2,654	977	579	653	1,232	3,450

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- °A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- °10% of parcels will have additional housing for elderly.
- °Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 2.8 persons. (1990 census data).

*Does not include incorporated area.

Table 4-7

**GENERAL PLAN BUILDOUT
WITHIN ORLAND URBAN LIMIT LINE***

LAND USE CATEGORY	TOTAL ACREAGE BY DESIGNATION	ACREAGE AVAILABLE FOR DEVELOPMENT ¹	POTENTIAL NEW UNITS/S.F. ²	EXISTING UNITS/S.F. ³	TOTAL BUILDOUT UNITS/S.F. ⁴	POPULATION ⁵
Single Family Residential	30	-	-	71	71	198
Multiple Family Residential	38	5	65	425	490	1,372
Suburban Residential	1,006	510	252	84	336	940
Rural Residential	1,977	1,324	290	104	394	1,103
Community Commercial	70	52	620,730 S.F.	-	620,730 S.F.	
Service Commercial	140	105	1,829,520 S.F.	-	1,829,520 S.F.	
Highway and Visitor Commercial	60	45	544,500 S.F.	-	544,500 S.F.	
Industrial	170	128	2,230,272 S.F.	-	2,230,272 S.F.	
Business Park	140	105	1,372,140 S.F.	-	1,372,140.F.	
Public	388	-	-	-	-	
General Agriculture	685	513	25	-	25	70
Intensive Agriculture	94	70	2	2	4	11
TOTAL	4,798	2,857	634	686	1,320	3,694

¹Single and multiple family residential acreage based on vacant land; other categories based on vacant land and assumption that 75% of area designated will be available for development. In areas designated for intensive or foothill agriculture, it is assumed that approximately 25% will be available for development because of existing parcelization and retention of large parcels for agricultural production.

²Based on building intensity standards included in the General Plan plus the following assumptions:

- °A 10% factor has been used to calculate net acreage where appropriate; a 14% factor used for multiple-family.
- °10% of parcels will have additional housing for elderly.
- °Commercial and industrial development assumes an averaged lot coverage allowable with single story development except in community and highway and visitor commercial where 10% of area is calculated with two-story development.

³Based on housing and land use information contained in the Glenn County Environmental Setting Technical Paper; commercial and industrial square footage is estimated for existing developed acreage with square footage calculated as described above for potential development.

⁴Existing plus potential with adjustment for existing housing units designated for non-residential development.

⁵Based on 1990 average household size of 2.8 persons. (1990 census data).

* Does not include incorporated area.

Table 4-8

**COUNTYWIDE GENERAL PLAN BUILDOUT SUMMARY: Table for Residential.
RESIDENTIAL**

	Existing Units	Potential Units	Total Units at Buildout ¹	Population
Within Urban Limit Lines	2,041	2,696	4,646	13,629
Outside Urban Limit Lines	2,739	2,780	5,519	15,453
Total	4,780	5,476	10,165	29,082

¹Existing units plus potential units with adjustment for existing housing units designated for nonresidential development.

Table 4-9

**COUNTYWIDE GENERAL PLAN BUILDOUT SUMMARY: Table for Commercial.
COMMERCIAL**

	Existing Square Footage	Potential Square Footage	Total Square Footage at Buildout
Within Urban Limit Lines	792,357 S.F.	4,961,296 S.F.	5,753,653 S.F.
Outside Urban Limit Lines	2,574,396 S.F.	4,491,319 S.F.	7,065,715 S.F.
Total	3,366,753 S.F.	9,452,615 S.F.	12,819,368 S.F.

Table 4-10

**COUNTYWIDE GENERAL PLAN BUILDOUT SUMMARY: Table for Industrial.
INDUSTRIAL**

	Existing Square Footage	Potential Square Footage	Total Square Footage at Buildout
Within Urban Limit Lines	3,523,656 S.F.	7,710,991 S.F.	11,234,647 S.F.
Outside Urban Limit Lines	4,356,000 S.F.	4,508,460 S.F.	8,864,460 S.F.
Total	7,879,656 S.F.	12,219,451 S.F.	20,099,107 S.F.

SECTION 5 - GOALS, POLICIES AND IMPLEMENTATION

5.0. GOALS, POLICIES AND IMPLEMENTATION

Government Code Section 65302 states that, "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals". In the context of the general plan, the word "policy" has both a general and specific meaning in that a development policy is a statement that guides action (general) and which includes goals, objectives, principles, policies (specific), plan proposals, and standards.

In formulating an updated Glenn County General Plan, three issue papers were prepared covering natural resources, public safety, and community development. Each of these papers focused on topics which had been identified for discussion either by mandate of State law or suggested by participants in the Plan process. For each issue, opportunities and constraints were discussed and conclusions reached in order to recommend goals and policies. These issue papers, along with the Environmental Setting Technical Paper, provide the background documentation for the goals, policies, implementation strategies, and programs that follow. These papers are incorporated into this Policy Plan by reference and should be referred to for background and discussion when reviewing the Policy Plan.

The following goals and policies will be used to guide the county's growth and development during the next twenty years. By definition, a "goal" will express, in general terms, community values which set a direction or ideal future end, condition, or state. The policies will be specific statements to guide decision making, based on the General Plan goals. As set forth in the State General Plan Guidelines, published by the Office of Planning and Research, the word "shall" indicates an unequivocal directive. The word "should" signifies a less rigid directive, to be honored in the absence of compelling or contravening considerations. The goals and policies are categorized by issue topic and are followed by implementation strategies, programs and priorities.

In the context of the General Plan, implementation strategies are those measures which will carry out general plan policies. These measures may represent an action, procedure, program or technique which will achieve the established goals and objectives. As indicated in the General Plan Guidelines, each general plan policy must have at least one corresponding implementation measure. Implementation strategies have been prioritized based on the following ranking:

- Priority 1 - Implementation immediate
- Priority 2 - Implementation within three to five years
- Priority 3 - Implementation beyond five years

For housing implementation strategies, a funding source is also stated as required by State law. Lead and coordinating agencies have also been identified for each implementation strategy. The lead agency is the organizational unit most directly responsible for ensuring that the requisite actions are taken. Coordinating agencies are those whose cooperation or assistance is needed or desired.

The goals, policies, implementation strategies and programs are divided into three subject areas: Natural Resources, Public Safety, and Community Development. Within the subsections of each subject area, statements are arranged in hierarchical order: goals, policies, quantified objectives (for housing) and implementation strategies. The numbering system for these statements is based upon the subject area, e.g. Natural Resources, Public Safety or Community

Development, and the type of statement (goal, policy, objective or implementation measure), abbreviated as follows:

- °Natural Resources (NR)°Goal (G)
- °Public Safety (PS)°Policy (P)
- °Community Development (CD)°Objective (O)
- °Implementation Measure (I)

Within each subject area, statements are numbered sequentially. For example, the first goal statement for Natural Resources is number NRG-1; the third policy statement for Public Safety is numbered PSP-3.

5.1. NATURAL RESOURCES: *Goals and Policies.*

5.1.1 Agriculture/Soils: goals and policies.

Background:

Three of the seven mandated elements of the general plan--land use, open space, and conservation--must address agricultural land and soils. The land use element: purpose designates the distribution, location and extent of the uses of land for open space, which includes agriculture and natural resources. The purpose of the open space element: purpose is to preserve open space land which by definition includes rangeland, agricultural lands and areas of economic importance for producing food or fiber. The conservation element: purpose must address the conservation, development, and utilization of natural resources, which includes soils. Agriculture and soils are discussed in Section 2.1 of the Environmental Setting Technical Paper, Section 2.0 of the Natural Resources Issue Paper and Section 2.1 of the Community Development Issue Paper.

Two-thirds of Glenn County's 1,317 square miles are agricultural croplands and pasture. As the most extensive land use in the county, agriculture constitutes a significant component of the local economy. Agricultural land also provides valuable open space and important wildlife habitat. It is important that the County take steps to preserve its agricultural land from both economic and environmental perspectives.

There are 173,565 acres of land within Glenn County classified as "prime". As defined by the State Department of Conservation through the Farmland Mapping and Monitoring Program, "prime farmland: definition" is land which has the best combination of physical and chemical features for producing crops. Converting prime agricultural land to non-agricultural uses is considered an irreversible loss of resources. Additionally, urban encroachment into agricultural areas can restrict surrounding agricultural operations and result in the loss of additional productive soils if not properly monitored and controlled.

The general plan process provides an opportunity for the County to establish and maintain the importance of agricultural lands preservation on a local level. With the primary goal being that of preserving the county's valuable agricultural resources, a variety of preservation tools can be used. The following goals, policies, implementation strategies and programs reflect Glenn County's approach to agricultural land preservation.

Goal:

NRG-1 Preservation of agricultural: goal land

Policies:

It shall be the policy of Glenn County to:

- NRP-1 Maintain agriculture as a primary, extensive land use, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's contribution to the preservation of open space and wildlife habitat.
- NRP-2 Support the concept that agriculture is a total, functioning system which will suffer when any part of it is subjected to regulation resulting in the decline of agricultural: economics productivity, unmitigated land use conflicts and/or excessive land fragmentation.
- NRP-3 Recognize the value of ricelands for waterfowl habitat, watershed management, and for groundwater recharge in an effort to preserve such lands and to maintain necessary water supplies in Glenn County.
- NRP-4 Support efforts underway to explore the potential to utilize ricelands as temporary storage reservoirs in winter months, thus increasing groundwater recharge and supplies of surface water for both agriculture and wildlife, and potentially providing an alternative to rice straw burning.
- NRP-5 Continue participation in the Williamson Act: policy, and allow new lands devoted to commercial agriculture and located outside urban limit lines to enter the program, subject to the specific standards for inclusion contained in this General Plan.
- NRP-6 Lobby on a continuing basis for maintenance and enhancement of the Williamson Act subvention program in concert with other interested counties and organizations.
- NRP-7 Recognize the importance of the dairy industry, as well as other confined animal agricultural: dairy uses, to the agricultural economy by actively supporting efforts to attract new dairies and to expand existing facilities.
- NRP-8 Assure that future land use decisions protect and enhance the agricultural: economics industry while also protecting existing uses from potential incompatibilities.
- NRP-9 Encourage use of agricultural: land preservation lands preservation tools such as in-county transfer of development rights, conservation easements, exclusive agricultural zoning and continuation of minimum parcel sizes.
- NRP-10 Limit the application of rural residential and similar zoning in the county, and follow standards for its application as contained in this General Plan, so as not to encourage the premature conversion of otherwise viable agricultural: land preservation land to rural residential environments which can no longer be farmed, and are typically too dispersed to be served efficiently by government services.

- NRP-11 Monitor requests for subdivision of agricultural: land preservationly developed and zoned parcels, located outside urban limit lines, in order to determine if present minimum parcel sizes are working effectively to discourage agricultural lands conversion.
- NRP-12 Review agricultural land conversion findings as described in NRP-11 with decision makers annually.
- NRP-13 Establish urban limit lines around existing and planned future communities, development nodes and other areas of urban use, in an effort to protect agricultural land and to encourage infill and concentric growth.
- NRP-14 Consult Important Farmland Maps and other sources of information on the relative value of agricultural lands when planning areas of growth, in order to direct growth and development toward lesser value agricultural lands.
- NRP-15 Recognize that, in order to realistically provide for the necessary diversity and growth required in the local economy, some lands presently committed to agriculture may be consumed by other development activities, and plan for and monitor such conversion to assure that it does not hinder or restrict existing agricultural operations. Priority shall be given to industries related to agriculture.
- NRP-16 Retain grazing land in large contiguous areas of the foothills, in recognition of its value to the livestock industry and as open space for watershed management, and its contribution to groundwater recharge, wildlife and waterfowl.
- NRP-17 Recognize that limited conversion of grazing lands to other uses may be less harmful to agriculture than conversion of cropland, if the new uses are properly planned and serviced.
- NRP-18 Support the U.S.D.A. Soil Conservation Service effort to update soils survey information in Glenn County.
- NRP-19 Support the erosion control programs, resource management programs, and agricultural conservation efforts of the Glenn County Resource Conservation District that benefit the county as a whole.
- NRP-20 Recognize the potential restrictions urbanization places on nearby agricultural: urban impacts practices and mitigate such conflicts whenever possible. Continue to support the County's "right to farm" ordinance and effort.
- NRP-21 Require notices of nonrenewal for Williamson Act lands as a condition of land division and boundary line changes which result in parcel sizes below zoning minimums.

Implementation Strategies, Programs and Priorities:

NRI-1 Maintain or adopt intensive agricultural zoning on all privately owned parcels shown on the Land Use Diagram for agricultural use.

Implements policies: NRP-1, NRP-2, NRP-20, NRP-34
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, agricultural organizations

NRI-2 Maintain minimum parcel sizes in all agricultural: parcel size zones and review present standards annually to assure their effectiveness. Provide for nonrenewal of Williamson Act lands as a condition of County approvals resulting in lots below minimum parcel size allowed in the Zoning Code.

Implements policies: NRP-1, NRP-2, NRP-21, NRP-34
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, agricultural organizations

NRI-3 Encourage rice growers as well as other agricultural: habitat crop growers and cooperatives to emphasize the value of rice land for waterfowl habitat, air quality enhancement, and groundwater recharge through promotions and advertisement.

Implements policies: NRP-3, NRP-37
Priority: 1
Lead Agency: Glenn County Agricultural Commissioner
Coordinating Agencies: Glenn County Farm Bureau, Glenn County Agricultural Advisory Committee, agricultural organizations

NRI-4 Monitor and participate in efforts of State and federal agencies and private conservation groups to find alternatives to rice straw burning, including winter flooding of fields.

Implements policies: NRP-4, NRP-37, PSP-33
Priority: 1
Lead Agency: Glenn County Agricultural Commissioner
Coordinating Agencies: Glenn County Air Pollution Control District, agricultural organizations

NRI-5 Establish a process in the Planning Department allowing for the processing of "AP" zoning requests and Williamson Act contracts once annually, subject to the standards contained in this General Plan.

Implements policy: NRP-5
Priority: 2

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, agricultural organizations

NRI-6 Utilize the County Agricultural Williamson Act Advisory Committee to lobby on a continuing basis for the maintenance and enhancement of the Williamson Act subvention program, and monitor actions taken at the State and federal level which may impact the county's agricultural resources.

Implements policy: NRP-6
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Assessor, Glenn County Board of
Supervisors, agricultural organizations

NRI-7 As a part of local economic development efforts, support programs which encourage the siting of new agricultural: uses operations within the county and which facilitate the expansion of existing facilities.

Implements policy: NRP-7
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Tri-County Economic Development Corporation, Glenn
Chamber of Commerce Economic Development, Inc.,
Glenn County Planning Department, agricultural
organizations

NRI-8 Apply locational standards for dairies, as contained in this General Plan.

Implements policy: NRP-8
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Building Department, Glenn County
Public Works Department, agricultural organizations

NRI-9 Amend the Zoning Code to allow for the transfer of development rights within Glenn County only from agricultural development rights; areas threatened by development, to specified receiving areas located within urban limit lines or other sites designated for development.

Implements policy: NRP-9
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, agricultural organizations

NRI-10 Establish a local agricultural: easements preservation program which encourages the use of voluntary conservation easements between private property owners and qualified conservation organizations to protect the county's resources.

Implements policies: NRP-9, CDP-7
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, American Farmland Trust, agricultural organizations

NRI-11 Apply new rural residential and similar zoning only in compliance with the standards and Land Use Diagram set forth in this General Plan.

Implements policies: NRP-10, NRP-34, CDP-5
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, agricultural organizations

NRI-12 Prepare an annual report for the local decision makers which reflects agricultural: preservation land conversions and subdivisions.

Implements policies: NRP-11, NRP-12, NRP-15
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Assessor, agricultural organizations

NRI-13 Show urban limit lines on the Land Use Diagram around existing and future planned communities and areas of urban use, and enforce those lines through appropriate zoning.

Implements policies: NRP-13, NRP-20, NRP-34, CDP-6, CDP-112, CDP-114, CDP-119
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Local Agency Formation Commission, agricultural organizations

NRI-14 Retain the Foothill Agriculture/Forestry Zone in areas of the foothills containing large contiguous areas of grazing land.

Implements policies: NRP-16, CDP-123
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, agricultural organizations

NRI-15 Utilize a review process for requests to convert land from agriculture and grazing to other uses which incorporates the standards and procedures contained in this General Plan.

Implements policies: NRP-14, NRP-15, NRP-17, NRP-20, NRP-34,
CDP-10, CDP-11, CDP-123
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, agricultural organizations

NRI-16 Establish a County notification process for requests to convert land from agricultural; land conversion and grazing use to wetlands.

Implements Policies: NRP-1, NRP-16
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, Glenn County Assessor, Glenn
County Resource Conservation District, State Department
of Fish and Game, U.S. Fish and Wildlife Service,
agricultural organizations

NRI-17 Monitor and participate in efforts to update soils survey information in Glenn County and other local programs of the Glenn County Resource Conservation District.

Implements policies: NRP-18, NRP-19
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Resource Conservation District,
agricultural organizations

5.1.2 Water Resources: Goals and policies.

Background:

Water resources must be addressed in both the conservation and open space elements. As part of the conservation element, the conservation, development and utilization of natural resources, including water and its hydraulic force, rivers and other waters, reclamation of waters, prevention and control of the pollution of streams and other waters, and the protection of watersheds should be addressed. The purpose of the goals and policies of the open space element: purpose of goals and policies is to preserve natural resources, including habitat for fish and wildlife, rivers and streams, the banks of rivers and streams, and watersheds; management of groundwater recharge areas, rivers and streams which are important for the management of commercial fisheries; management of open space used for outdoor recreation including rivers, streams and lakeshores; and management or regulation of watershed areas, protection of water quality and water reservoirs to protect public health and safety. Water resources are discussed in

Section 2.3 of the Environmental Setting Technical Paper and Section 3.0 of the Natural Resources Issue Paper.

The Sacramento River is the primary source of surface irrigation water in Glenn County. Water from the river is diverted into two major canals, the Glenn-Colusa and the Tehama-Colusa. Stony Creek is also a predominant source of surface water, supporting two reservoirs within the county, Stony Gorge and Black Butte. Hydroelectric power generating facilities are located at both of these reservoirs. A substantial watershed is located along the easterly slopes of the Coast Range, most of which is located within the Mendocino National Forest and under the jurisdiction of the federal government.

The eastern portion of the county overlies the Sacramento Valley Groundwater Basin which contains abundant supplies of high quality groundwater to depths of 800 feet. Groundwater is the primary source of domestic water supply in the county and is also used for irrigation in areas where surface water is not available. The Stony Creek area, including the gravel ridge from Stony Creek to Road 60 parallel to Road P, is a major recharge area.

The abundant supplies of surface and groundwater within Glenn County make the county "water rich". A statewide demand for water for both domestic and agricultural water use and recent State and federal requirements to ensure that adequate supplies of water are available in rivers, streams and other natural areas to sustain wildlife result in strong competition for available water. Much of the decision making regarding water resources will be made at the State and federal level and will be difficult to influence from the local level. It is important, however, that the County take a proactive role in protecting local water resources. The following goals, policies, implementation strategies and programs reflect the County's approach to protecting and managing local water resources.

Goal:

NRG-2 Protection and management of local water resources.

Policies:

It shall be the policy of Glenn County to:

NRP-22 Oppose the exportation of groundwater resources outside the county.

NRP-23 Support legislation which will provide for a locally controlled Glenn County groundwater management district.

NRP-24 Recognize the following local priorities when dealing with questions of ground and surface water use:

- Highest 1) Household/Domestic
- 2) Agriculture
- 3) Industrial/Commercial
- 4) Wildlife/Conservation
- Lowest 5) Exportation

- NRP-25 Protect groundwater recharge areas in the county from overcovering and contamination by carefully regulating the type of development which occurs within these areas.
- NRP-26 Discourage onsite sewage disposal systems in areas with high groundwater recharge potential and eliminate existing concentrations of septic tanks in such areas through construction of community sewage treatment and disposal systems.
- NRP-27 Prohibit uses with the potential to accidentally discharge harmful groundwater pollutants in areas of high groundwater recharge, unless appropriate mitigation measures have been incorporated into the operation of such uses.
- NRP-28 Identify and monitor potential sources of groundwater pollution, including harmful agricultural: water practices.
- NRP-29 Limit structural coverage and impervious surfaces within areas of high groundwater recharge through application of zoning that recognizes the importance of this feature.
- NRP-30 Protect important watershed areas from poor development practices and potential degradation.
- NRP-31 Monitor actions taken at the State and federal level which impact water resources in order to evaluate the effects of these actions on the county's resources.
- NRP-32 Support programs that will provide better information to the County and other agencies concerning reservoir siltation and aid in the formulation of an appropriate plan of action.
- NRP-33 Carefully study the potential impact that any future reservoir construction may have on groundwater recharge areas in Glenn County.
- NRP-34 Recognize the value of irrigation system infrastructure by discouraging development within established irrigation district boundaries which would prematurely reduce the utility of such systems.
- NRP-35 Encourage the development of water conservation programs by water purveyors for both agricultural: water and urban uses.
- NRP-36 Encourage development of educational programs to increase public awareness of water conservation opportunities and the potential benefits of implementing conservation measures and programs.
- NRP-37 Recognize that efforts to reserve water in Glenn County for wildlife may also bring long-term benefits to the effort to retain water resources locally.
- NRP-38 Recognize the impacts of gravel extraction on groundwater quantity and quality and encourage extraction methods that preserve and enhance groundwater resources.

Implementation Strategies, Programs and Priorities:

NRI-18 Establish a local groundwater management program including strategies for advancing State legislation supportive of a locally controlled groundwater management district.

Implements policies: NRP-22, NRP-23, NRP-31, PSP-47
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Health Department

NRI-19 Apply the priorities for water consumption included in this General Plan when reviewing discretionary actions.

Implements policy: NRP-24
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-20 Establish an overlay designation to provide appropriate protections for areas of the county where groundwater recharge occurs, such as limitations on overcovering of soils with impervious surfaces. To provide for appropriate groundwater protection, new zoning proposals that could result in residential lots less than one acre should not be approved until a sewer system is available. Consult with the State Department of Water Resources, the Glenn County Health Department and the Glenn County Planning Department, and incorporate protective measures into the Glenn County Zoning Code.

Implements policies: NRP-25, NRP-26, NRP-27, NRP-29, NRP-38, NRP-70, NRP-72, NRP-73, PSP-46, PSP-47, CDP-43
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, State Department of Water Resources, Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-21 Support efforts to seek funds and construct an alternative community sewage treatment and disposal system for West Orland, and other areas of heavy septic tank use, which are located within areas of high groundwater recharge.

Implements policies: NRP-26, PSP-46
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Health Department, Glenn County Planning Department

NRI-22 Work with State and federal agencies to improve local groundwater pollution detection and monitoring

Implements policy: NRP-28
Priority: 2
Lead Agency: Glenn County Health Department
Coordinating Agencies: Department of Water Resources, Glenn County
Agricultural Commissioner

NRI-23 Amend County ordinances to include development standards, as contained in this General Plan, which protect watershed areas, and coordinate application of the standards with the U.S. Forest Service and other agencies.

Implements policies: NRP-30, NRP-66, NRP-67, CDP-43
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, Glenn County Public Works
Department, U.S. Forest Service

NRI-24 Monitor and participate in efforts of the Bureau of Reclamation and Army Corps of Engineers to study the impacts of additional reservoir construction and of reservoir siltation.

Implements policy: NRP-32, NRP-33
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Bureau of Reclamation, Army Corps of Engineers,
irrigation and water districts

NRI-25 Develop and actively seek funding to develop water conservation and educational programs.

Implements policies: NRP-35, NRP-36, NRP-61
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agencies: Glenn County Resource Conservation District, Glenn
County Planning Department, irrigation and water districts

5.1.3 Biological Resources: Goals and Policies.

Background:

As part of the open space element of the general plan, it is necessary to address areas which are required for the preservation of plant and animal life, including habitat for fish and wildlife species. The conservation, development and utilization of natural resources, including fisheries and wildlife, is the purpose of the conservation element: purpose. Biological resources are discussed in Section 2.4 of the Environmental Setting Technical Paper and Section 4.0 of the Natural Resources Issue Paper.

Glenn County, like many counties in California, has an extremely diverse plant and animal population. There are currently twenty-six species known to occur within the county which have State or federal status. Species of greatest importance to the general plan process are deer and waterfowl, due to the large areas they occupy and their economic importance to the county. Twelve important biological areas have also been identified in Section 4.1.1 of the Environmental Setting Technical Paper which require special attention in the general plan process. Six of these areas are associated with the Sacramento River and contain unique riparian habitats.

There is strong interest at both the State and federal level in preserving riparian and wetland areas. One program administered by the U.S. Fish and Wildlife Service is the acquisition of conservation easements within Glenn County for the preservation of waterfowl and wetland habitat. The Board of Supervisors, by Resolution 92-56, has consented to the acquisition of waterfowl and/or wetland easements in certain areas of the county. Under consideration by the County is a procedure requiring County notification prior to establishing wildlife preserves. A committee of interested agencies has been formed to develop and recommend standards for these preserves.

Recognizing that federal and State agencies can and do act independently of the County, it is important that the County's approach to habitat preservation take agency policies into consideration to avoid potential conflicts. The following goals, policies, implementation strategies and programs support such an approach and also emphasize an holistic management approach, similar to that promoted by the Soil Conservation Service and the Glenn County Resource Conservation District.

Goal:

NRG-3 Preservation and enhancement of the county's biological resources in a manner compatible with a sound local economy.

Policies:

It shall be the policy of Glenn County to:

NRP-39 Approach the retention and enhancement of important habitat by preserving areas or systems which will benefit a variety of species or resources rather than focusing on individual species, resources or properties.

NRP-40 Consider sponsoring habitat conservation plans pursuant to the Federal Endangered Species Act when sensitive species are encountered in areas proposed for development.

NRP-41 Biological resources: Preserve natural riparian habitat, especially along Stony Creek and the Sacramento River and Butte Creek.

NRP-42 Eliminate the E-M (Extractive Industrial) Zone from areas containing natural riparian vegetation/habitat and replace it with a category affording greater protection to streamcourses and riparian habitats.

- NRP-43 Support programs that expand public hunting and outdoor educational opportunities in Glenn County, including beneficial agricultural practices and pay-to-hunt enterprises.
- NRP-44 Recognize that retention of natural areas is important to maintaining adequate populations of wildlife which is, in turn, important to the local economy.
- NRP-45 Encourage development of hunting opportunities in the county in an effort to offset the costs of natural habitat preservation while assuring that such activities are consistent with the public health and safety.
- NRP-46 Promote protection of native biological habitats of local importance such as riparian forests, foothill oak woodlands, Stony Gorge and Black Butte Reservoirs.
- NRP-47 Recognize and protect areas of unique biological importance as identified on Figure 3-14 when reviewing development related proposals.
- NRP-48 Study the feasibility of establishing buffer areas separating incompatible residential and commercial development from the Sacramento National Wildlife Refuge and other areas of unique biological importance.
- NRP-49 Coordinate with State and federal agencies, private landowners, and private preservation/conservation groups in habitat preservation and protection of rare, endangered, threatened and special concern species, to ensure consistency in efforts and to encourage joint planning and development of areas to be preserved.
- NRP-50 Recognize the Sacramento River corridor, the Sacramento National Wildlife Refuge, migratory deer herd areas, naturally occurring wetlands, and stream courses such as Butte and Stony Creeks as areas of significant biological importance.
- NRP-51 Coordinate with wildlife agencies, the Army Corps of Engineers and the State Lands Commission during review of development permits.
- NRP-52 Utilize the Sacramento River Marina Carrying Capacity Study findings when reviewing proposals for development along the Sacramento River.
- NRP-53 Direct development away from naturally occurring wetlands to the extent such policy is consistent with the concept of compact and contiguous development.
- NRP-54 Coordinate closely with the Mendocino National Forest, if development proposals are forthcoming for private lands within the Forest.
- NRP-55 Seek membership on the Sacramento Valley Bioregion Regional Council proposed to be created by State and federal land management agencies.
- NRP-56 Provide notice to the Board of Supervisors prior to any final public or nonprofit agency decision to acquire land (fee title acquisition) or establish an easement for wildlife habitat and/or riparian habitat protection.

NRP-57 Oppose additional fee title purchases of land by State and federal land management agencies that do not provide payments in-lieu of taxes.

NRP-58 Advocate full federal funding of the federal Refuge Revenue Sharing Act.

NRP-59 Advocate a property tax replacement program applicable to lands diminished in value by easements purchased by State and federal land management agencies.

NRP-60 Work with State, federal and private agencies to ensure payment of in-lieu taxes.

NRP-61 Support efforts to improve water availability and management when the potential exists to benefit fish and wildlife in cooperation with Glenn County agricultural: water water users.

NRP-62 Support the coexistence of agricultural: wildlife and wildlife land uses, and cooperation of persons involved in agriculture and wildlife habitat preservation, in areas of wildlife habitat potential.

Implementation Strategies, Programs and Priorities:

NRI-26 Establish a working relationship with the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and private preservation/conservation groups to identify areas appropriate for habitat retention, enhancement and conservation.

Implements policies: NRP-39, NRP-40, NRP-62
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: California Department of Fish and Game, U.S. Fish and Wildlife Service, Nature Conservancy, Ducks Unlimited, California Waterfowl Association, Soil Conservation Service, Glenn County Resource Conservation District

NRI-27 Amend the Glenn County Zoning Code to include a Streamside Protection Zone and rezone those areas along stream courses currently zoned E-M (Extractive Industrial Zone) in accordance with a locally prepared riparian zone management plan.

Implements policies: NRP-41, NRP-42, PSP-45
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Resource Conservation District, California Department of Fish and Game, agricultural organizations

NRI-28 As a part of local economic development efforts, support local efforts to encourage development of public hunting and outdoor recreational and educational activities.

Implements policies: NRP-43, NRP-44, NRP-45

Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation, Glenn County Fish, Game and Recreation Commission, Nature Conservancy, U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Army Corps of Engineers, Glenn County Resource Conservation District, California Waterfowl Association

NRI-29 Amend the Glenn County Zoning Code to include standards for hunting lodges, clubs and camps, as set forth in this General Plan.

Implements policy: NRP-45
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Health Department, Glenn County Building Department, Glenn County Fish, Game and Recreation Commission

NRI-30 Coordinate efforts for oak preservation in subdivisions and other development projects with the California Department of Fish and Game.

Implements policy: NRP-46
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, California Department of Fish and Game, Glenn County Resource Conservation District, Glenn County Fish, Game and Recreation Commission, agricultural organizations, California Department of Forestry

NRI-31 Recognize the importance of preserving natural areas such as foothill oak woodlands in the vicinity of Stony Gorge Reservoir and Black Butte Reservoir when delineating land uses on the Land Use Diagram.

Implements policies: NRP-46, NRP-47
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, U.S. Army Corps of Engineers

NRI-32 Meet with the U.S. Fish and Wildlife Service to determine if there is interest in establishing buffer areas around the Sacramento National Wildlife Refuge and other areas of biological importance, and how the federal government would participate in their formation.

Implements policy: NRP-48
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game, Glenn County Agricultural Commissioner, Glenn County Assessor

NRI-33 Follow procedures established in the Standards section of this General Plan to ensure adequate coordination, including any forms of mitigation or compensation that may be required, with wildlife agencies, the Army Corps of Engineers and the State Lands Commission during review of development permits.

Implements policies: NRP-49, NRP-51
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game, State Lands Commission, U.S. Army Corps of Engineers, Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Agricultural Commissioner, U.S. Forest Service

NRI-34 Identify biologically important areas, such as the Sacramento River Corridor, Sacramento National Wildlife Refuge, deer herd ranges, naturally occurring wetlands, and stream courses such as Butte and Stony Creeks, and show them as constraints to development in this General Plan (Reference Biological Importance Overlay and Restorable Wetlands Overlay).

Implements policies: NRP-50, NRP-53
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Resource Conservation District, U.S. Fish and Wildlife Service, U.S. Forest Service, Nature Conservancy

NRI-35 Adopt a finding for development proposals along the Sacramento River that the project is consistent with recommendations contained in the Sacramento River Marina Carrying Capacity Study, as set forth in the Standards section of this General Plan, prior to taking an action for approval.

Implements policy: NRP-52
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-36 Consult with the U.S. Forest Service during the initial review of any development proposals on private lands within the Mendocino National Forest.

Implements policy: NRP-54
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: U.S. Forest Service

NRI-37 Contact sponsoring agencies and formally express an interest in having a County representative serve on the proposed Sacramento Valley Bioregion Regional Council.

Implements policy: NRP-55
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game, Glenn County Resource Conservation District

NRI-38 Lobby State and federal legislators to ensure that full payment in lieu of taxes are provided for in State and federal budgets.

Implements policies: NRP-57, NRP-58, NRP-68
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

NRI-39 Lobby State and federal legislators for a property tax replacement program for lands diminished in value by easements purchased by State and federal land management agencies.

Implements policies: NRP-59, NRP-68
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

NRI-40 Adopt a resolution to include a procedure for requiring notice prior to acquiring or creation of an easement by State and federal agencies and nonprofit conservation groups.

Implements policy: NRP-56
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-41 Lobby State and federal legislators for a property tax replacement program for lands where welfare exemptions have been granted.

Implements policies: NRP-57, NRP-60
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Assessor, Glenn County Planning Department

5.1.4 Timber Resources: Goals and Policies.

Background:

Pursuant to Section 65302 of the Government Code, the land use element must include a land use category that provides for timber production and apply such a designation to those lands zoned for timberland preserve. Timber and related resources, such as watershed areas, also must be addressed in the open space element and the conservation element. Timber resources are discussed in Sections 2.4.1 and 4.6.2 of the Environmental Setting Technical Paper and Section 5.0 of the Natural Resources Issue Paper.

Timber resources in Glenn County are composed of a variety of soft woods. Harvestable trees come predominantly from the Mendocino National Forest. Public lands within the National Forest are managed by the federal government with the County having little jurisdiction. A Land Resource Management Plan is required by law for each national forest and must contain requirements for the management of the forest.

Timber harvesting on private lands is regulated by the State Board of Forestry through the approval of individual timber harvest plans. There are approximately 30,000 acres of private lands within the Mendocino National Forest managed for timber production. These lands are zoned TPZ (Timberland Preserve) pursuant to the Timberland Productivity Act of 1982. The purpose of the Act is to discourage the premature conversion of timberland to other uses.

Timber harvesting has historically been an important component of the Glenn County economic base. In 1990, approximately 4.4 percent of the total county work force was employed in forestry-related industries. The role of the timber industry is not expected to grow in relation to the balance of the economy and will most likely decline from the level prevalent in the 1980's. This anticipated decline is due in part to habitat preservation efforts.

As discussed under Water Resources, the public and private lands within the National Forest located along the easterly slopes of the Coast Range comprise a substantial watershed area. This area plays a critical role in supplying water for agriculture, domestic use, and power production. Watershed protection is addressed in the following goals, policies, implementation strategies and programs, as is timberland preservation and management.

Goal:

NRG-4 Preservation, maintenance and restoration of forestry resources.

Policies:

It shall be the policy of Glenn County to:

- NRP-63 Preserve public and private timber lands and reserve them for that use, while at the same time encouraging compatible recreation and open space uses.
- NRP-64 Evaluate rezoning requests in the context of the potential uses and their associated impacts on surrounding timberlands.
- NRP-65 Require biological surveys of timberland as a part of the review process when zone changes, use permits or other development plans are submitted to the County, including an evaluation of the site's utility for timber production.
- NRP-66 View timberlands: preservation standards as critical watershed areas and apply watershed protection standards contained in this General Plan for vegetation retention, stream and drainage course setbacks, cut and fill activities, land coverage and limitations on development on steep slopes.
- NRP-67 Cooperate with federal and State agencies on programs designed to protect and improve watershed values.
- NRP-68 Discourage trades of private lands with the National Forest which would result in a loss of local tax base, unless they are seen as necessary to the preservation of critical watershed and wildlife areas.
- NRP-69 Ensure that as development occurs in remote timbered areas of the county, such development pays its fair share of service related costs through appropriate assessments and mitigation fees.

Implementation Strategies, Programs and Priorities:

- NRI-42 Retain TPZ (Timberland Preserve Zone) or OS (Open Space) zoning on timberland, and deny future requests for rezoning which would be incompatible with timber production.

Implements policies: NRP-63, NRP-64
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-43 Amend the Glenn County Zoning Code to require biological surveys as part of the application process for development requests on land utilized for timber production.

Implements policy: NRP-65
 Priority: 2
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-44 Amend the Glenn County Zoning Code to include standards for watershed protection as set forth in this General Plan.

Implements policies: NRP-66, NRP-67
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-45 Communicate directly with federal agencies concerning the County's opposition to trades of private lands with the National Forest which would result in a loss of local tax base.

Implements policy: NRP-68
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

NRI-46 Adopt mitigation fees and special assessments for development that occurs in remote timbered areas of the county.

Implements policy: NRP-69
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

5.1.5 Mineral and Energy Resources: Goals and Policies.

Background:

Mineral resources must be addressed in the conservation, open space and land use elements. The conservation element emphasizes the conservation, development and utilization of minerals and other natural resources and may also cover the location, quantity and quality of rock, sand and gravel resources. The Public Resources Code (Sections 2762-2764) states that within twelve months of receiving mineral classification information from the State Geologist, a jurisdiction shall establish mineral resource management policies for incorporation into the general plan which emphasize the conservation and development of identified mineral deposits. The open space element must address the issue of open space management for areas containing major mineral deposits and watershed areas. The general distribution and location of lands containing natural resources, such as mineral deposits, must be addressed in the land use element. Mineral and energy resources are discussed in Section 2.5 of the Environmental Setting Technical Paper and Section 6.0 of the Natural Resources Issue Paper.

Mineral and energy resources are found in relative abundance in Glenn County and represent a potential source for economic development in the county. To address energy resources, an Energy Element of the General Plan has been prepared which establishes comprehensive goals,

policies, objectives, programs and standards regarding energy use and energy facility development in the county. These goals, policies, objectives, programs and standards are to be adopted concurrently with this Policy Plan and supplement the material contained herein. The Element proposes to increase energy efficiency in the county, determine the extent of the county's energy resources, determine what energy facilities could feasibly be developed in the future, and provide policy guidance for land-use decisions involving energy facilities.

Mineral resources in Glenn County include sand and gravel and natural gas. Approximately 2.8 percent of the total statewide natural gas production in 1989 was produced in Glenn County. Commercial extraction activities occur in existing gas fields located throughout the valley floor portion of the county, the Malton-Black Butte field located on the border with Tehama County, and the Willows-Beehive Bend field located in the southeastern portion of the county. The Energy Element addresses gas well production and siting as well as the general environmental issues associated with developing gas and oil wells.

The primary areas for gravel extraction occur along Stony Creek and the Sacramento River, although there are other pockets of resources scattered through the county. All active and proposed surface mining operations are required by State law to provide for the reclamation/restoration of the facilities once the resource is exhausted or the operation ceases for other reasons.

As part of the conservation element, the location, quantity and quality of the rock, sand and gravel resources may be addressed. Planning for extraction, processing and transportation for these facilities is addressed in the following goals, policies, implementation strategies and programs.

Goal:

NRG-5 Conservation and protection of non-renewable mineral and energy resources.

Policies:

It shall be the policy of Glenn County to:

NRP-70 Encourage a resource management role for the County.

NRP-71 Require that mineral extraction operations within streams as well as dry land deposits be performed in a way that is compatible with surrounding land uses, does not adversely affect the environment, and which mitigates related impacts through site-specific mitigation measures.

NRP-72 Establish mitigation fees for development which does not compensate for environmental impacts.

NRP-73 Include the Stony Creek fan aggregate resource on the groundwater recharge overlay to the Land Use Diagram and reference the overlay when reviewing development proposals in order to protect the resource from future incompatible encroachment, including overcovering by houses and other forms of development.

- NRP-74 Ensure proper management of the Stony Creek aggregate resource.
- NRP-75 Require that adequate security be posted to ensure that surface mining reclamation plans are implemented.
- NRP-76 Petition the State Geologist to designate and protect mineral resources in the county from incompatible uses.
- NRP-77 Require a Master Environmental Assessment and Aggregate Resource Management Plan to be completed on Stony Creek for gravel operations in cooperation with the Glenn County Resource Conservation District.
- NRP-78 Support the natural gas: Policy industry while ensuring that its operations are carried out in a safe and environmentally responsible manner.
- NRP-79 Protect gas fields from incompatible development and encroachment through appropriate land-use planning.
- NRP-80 Consider the location of gas wells when drafting urban limit lines or considering approval of urban development.
- NRP-81 Entertain proposals for additional hydroelectric development and biomass energy conversion, subject to the siting policies contained in the Energy Element of the General Plan.

Implementation Strategies, Programs and Priorities:

- NRI-47 Amend the Glenn County Zoning Code to require conditional use permits for mineral extraction operations in all zones where mineral extraction may occur.

Implements policies: NRP-70, NRP-71, NRP-74, NRP-75
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-48 Develop a Stony Creek Fan Aggregate Resource Management Plan following the preparation of a Master Environmental Assessment, with review authority by the Resource Conservation District. After the Aggregate Resources Management Plan is complete, request State designation to protect identified mineral resources from incompatible uses.

Implements policies: NRP-70, NRP-74, NRP-76, NRP-77
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Resource Conservation District

NRI-49 Enforce the natural gas well standards which have been adopted by Glenn County and require conditional use permits for any gas wells that do not meet these standards.

Implements policies: NRP-70, NRP-78, NRP-79
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Building Department

NRI-50 Review requests for urban development for compliance with the adopted standards for natural gas wells and require setbacks for new development in accordance with those standards.

Implements policies: NRP-79, NRP-80
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-51 Adopt the Energy Element of the General Plan and implement the objectives and strategies set forth therein.

Implements policy: NRP-70, NRP-81
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Building Department

5.1.6 Cultural Resources: Goals and Policies.

Background:

Cultural resources refer to resources created by humans which are considered to be of value, such as historic structures and artifacts, archaeological sites and artifacts (primarily Native American in origin), and aesthetics with respect to the impact of development on scenic natural vistas. Seven historically significant sites have been identified in the unincorporated area of Glenn County, six of which contain monuments. There are four general environmental zones within the county which vary as to archaeological sensitivity. It is the intent of Glenn County to ensure compliance with Appendix K of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) in order to protect the county's archaeological resources. Cultural resources are discussed in Section 2.6 of the Environmental Setting Technical Paper and Section 7.0 of the Natural Resources Issue Paper.

The open space element must set forth policy for preservation of areas of outstanding scenic, historic and cultural value. There are no eligible or State-designated scenic highways within Glenn County; however, State Highways 45, 162 have been recommended for scenic highway status. Areas of outstanding scenic, historic and cultural values have been identified and include the twelve important Biological Resource areas identified and addressed under the Biological

Resources goals and policies; the historic sites referenced above, the Grindstone Indian Reservation, County parks and the Mendocino National Forest.

Goal:

NRG-6 Identification and preservation of cultural resources within the county.

Policies:

It shall be the policy of Glenn County to:

NRP-82 Protect identified areas of unique historical or cultural value within the county and preserve those sites for educational, scientific and aesthetic purposes.

NRP-83 Recognize the following historic sites: list in future planning and decision making :

- Monroeville Cemetery Historical Site
- Will S. Green Monument
- Swift Adobe Monument
- Kanawha Cemetery Monument
- Monroeville and Ide Monument
- Willows Monument
- Jacinto Landing
- Historic School Sites

NRP-84 Consider preparation of an historic preservation plan.

NRP-85 Require proper evaluation and protection of archaeological resources discovered in the course of construction and development.

Goal:

NRG-7 Preservation of aesthetic resources and values.

Policies:

It shall be the policy of Glenn County to:

NRP-86 Avoid light and glare impacts when considering development.

NRP-87 Consider preparation of a scenic highways plan.

Implementation Strategies, Programs and Priorities:

NRI-52 Show recognized historic sites and other areas of unique cultural value on an overlay to the Land Use Diagram and reference the overlay when reviewing development proposals.

Implements policies:	NRP-82, NRP-83
Priority:	1

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, California Archaeological Inventory
Information Center

NRI-53 Establish a local committee of citizens to determine the interest in the future development of an historic preservation plan, containing policies and standards for protection of historic resources.

Implements policy: NRP-84
Priority: 3
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Glenn County Planning Department

NRI-54 Require development projects to comply with the process outlined in Appendix K of the CEQA Guidelines for protection of archaeological resources.

Implements policy: NRP-85
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission

NRI-55 Require archaeological surveys of potential development sites in accordance with the standards set forth in this General Plan.

Implements policy: NRP-85
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission

NRI-56 Establish a local committee of citizens to determine the interest in a designated system of scenic highways, vistas or corridors and subsequently implement policies and standards for their protection.

Implements policy: NRP-87
Priority: 3
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County
Public Works Department, Glenn County Transportation
Commission, Glenn County Planning Commission

NRI-57 Condition development permits to require all exterior lighting accessory to any use to be hooded, shielded or opaque, and no unobstructed beam of light shall be directed beyond any exterior lot line or directed onto adjacent rights-of-way.

Implements policy: NRP-86

Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Building Department, Glenn County
Public Works Department

5.2. PUBLIC SAFETY: Goals and Policies.

5.2.1 Law Enforcement.

Background:

The purpose of the safety element is to establish policy which reduces the threat of death, injury, property damage, and economic and social dislocation resulting from natural hazards. This element, while focusing on fire, flooding, geological and seismic hazards, may also address other locally relevant safety issues such as vehicle accidents and crime. Law enforcement is discussed in Section 3.1 of the Environmental Setting Technical Paper and Section 2.0 of the Public Safety Issue Paper.

The Glenn County Sheriff's Office provides law enforcement services within the unincorporated area of the county in addition to providing backup and dispatch services for the Willows and Orland police departments. The Sheriff also shares law enforcement responsibilities within the National Forest with the Mendocino National Forest. With headquarters located in Willows, the department also maintains substations in Orland and Hamilton City. The County Jail is located in Willows and houses all County prisoners.

The following goals, policies, implementation strategies and programs support the provision of adequate law enforcement through the establishment of a minimum level of service and guidelines for the provision of services in the most cost efficient manner.

Goal:

PSG-1 Protection and enhancement of the quality of life by reducing the loss of life and personal property due to crime.

Policies:

It shall be the policy of Glenn County to:

PSP-1 Establish a minimum level of service for the provision of law enforcement services.

PSP-2 Determine the impact proposed development will have on the provision of law enforcement services, and assure that the established level of service is maintained.

PSP-3 Require new development to pay its fair share for the provision of law enforcement services.

PSP-4 Actively involve law enforcement personnel in land use planning decisions.

PSP-5 Support consolidation of services for the areas located within the urban limit lines of the cities of Willows and Orland.

- PSP-6 Continue to support a cooperative approach to law enforcement within the Mendocino National Forest.
- PSP-7 Objectively evaluate proposals for regional and State correctional facilities within the county.
- PSP-8 Require new development to be designed so that criminal activity is discouraged.

Implementation Strategies, Programs and Priorities:

PSI-1 Maintain a law enforcement staffing ratio of one officer per 1,000 population within the unincorporated area.

Implements policies: PSP-1, PSP-2
 Priority: 1
 Lead Agency: Glenn County Sheriff's Department
 Coordinating Agency: Glenn County Board of Supervisors

PSI-2 Consult with law enforcement agencies during the initial review of development proposals.

Implements policies: PSP-2, PSP-4
 Priority: 2
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Sheriff's Department, Orland Police Department, Willows Police Department

PSI-3 Require, as a condition of approval for development permits, the establishment of a Mello-Roos district and/or law enforcement service impact fees.

Implements policy: PSP-3
 Priority: 2
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Auditor -Tax Collector

PSI-4 Maintain cooperative law enforcement agreements with the cities of Willows and Orland.

Implements policy: PSP-5
 Priority: 1
 Lead Agency: Glenn County Sheriff's Department
 Coordinating Agencies: Glenn County Board of Supervisors, Orland Police Department, Willows Police Department, Orland City Council, Willows City Council

PSI-5 Consider contracting with the cities of Orland or Willows for law enforcement services, if major new development is approved within the cities' urban limit lines.

Implements policy: PSP-5
Priority: 2
Lead Agency: Glenn County Sheriff's Department
Coordinating Agencies: Glenn County Board of Supervisors, Orland Police Department, Willows Police Department, Orland City Council, Willows City Council

PSI-6 Maintain a cooperative law enforcement agreement with the U.S. Forest Service for the area within the National Forest.

Implements policy: PSP-6
Priority: 1
Lead Agency: Glenn County Sheriff's Department,
Coordinating Agencies: Glenn County Board of Supervisors, U.S. Forest Service

PSI-7 Prepare a comprehensive evaluation of future proposals to site regional and State correctional facilities, and present findings to the Board of Supervisors.

Implements policy: PSP-7
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: State Board of Corrections, Glenn County Sheriff's Department

PSI-8 Condition development permits and modify future community design proposals consistent with the recommendations of local law enforcement agencies.

Implements policy: PSP-4, PSP-8
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Sheriff's Department, Orland Police Department, Willows Police Department, U.S. Forest Service, Glenn County Board of Supervisors, Glenn County Planning Commission

5.2.2 Fire Hazards and Fire Protection.

Background:

Section 65302(g) of the Government Code requires adoption of a safety element for protection from wildland and urban fires. In relation to fire hazards and fire protection, the safety element must not only identify unreasonable risks associated with wildland and urban fires but also address evacuation routes, peakload water supply requirements, minimum road widths, and clearance around structures as these issues relate to known fire hazards. Fire hazards and fire

protection are discussed in Section 3.2 of the Environmental Setting Technical Paper and Section 3.0 of the Public Safety Issue Paper.

There are twelve local agencies providing fire protection services within Glenn County. All but one of these agencies, the City of Willows, operates exclusively on a volunteer basis. Wildland fire protection is also provided by the California Department of Forestry (CDF) in the unincorporated foothill and rural areas on a seasonal basis. The U.S. Forest Service is responsible for wildland fire protection within the Mendocino National Forest and maintains an agreement with CDF to provide protection to private in-holdings.

Unlike law enforcement, specific standards for staffing rural fire agencies do not exist. Currently, each district creates its own standards for staffing based on its individual needs. It is most likely that volunteer staffing will continue to be utilized for the majority of districts. Many fire districts receive a tax from each dwelling located within their boundaries to help fund their operations. Methods of funding for capital costs will need to be explored, however, in order to maintain adequate service.

The following goals, policies, implementation strategies and programs identify and address methods for reducing potential risk from fire hazards. Also addressed is the County's Emergency Response Plan which establishes evacuation routes as mandated under the safety element provisions of the general plan.

Goal:

PSG-2 Protection and enhancement of the quality of life by reducing the loss of life and personal property due to fire.

Policies:

It shall be the policy of Glenn County to:

- PSP-9 Continue to support the County's volunteer fire forces and offer incentives for continued participation.
- PSP-10 Maintain existing fire service levels and not allow their deterioration.
- PSP-11 Determine the impact proposed development will have on the provision of fire protection services, and ensure that the established level of service is maintained.
- PSP-12 Regularly review and evaluate fire district boundaries to determine if the existing service areas are the most efficient and cost-effective.
- PSP-13 Establish as a priority adequate funding and fire fighting personnel for those areas targeted for growth.
- PSP-14 Encourage fire districts to work with the County to require new development to pay its fair share for the provision of new fire stations, equipment, personnel and fire suppression improvements necessary to provide adequate fire protection services.

- PSP-15 Actively involve fire protection personnel in land use planning decisions.
- PSP-16 Require new development to be designed with fire protection and prevention in mind.
- PSP-17 Apply contemporary fire prevention standards to all development.
- PSP-18 Evaluate the creation of urban area fire departments for the Willows and Orland areas which would serve both the developed areas and developing areas within established urban limit lines.
- PSP-19 Study the use of mutual aid agreements or memoranda of understanding for structural as well as wildland fire protection in areas currently under California Department of Forestry and U.S. Forest Service jurisdiction.
- PSP-20 Consider fire risk and hazard zones when approving residential development in areas subject to potential wildland fires.
- PSP-21 Require that all community water systems serving new development meet or exceed Glenn County minimum standards for provision of water for peakload demands and required fire flows.
- PSP-22 Comply with the State of California Fire Safety Regulations for the State Responsibility Area located within Glenn County.
- PSP-23 Assign house numbers for all structures within the county.
- PSP-24 Communicate the Emergency Response Plan to all public safety agencies when reviewing future development proposals throughout the county.
- PSP-25 Encourage development of educational programs that will increase public awareness of fire safety and emergency response planning.
- PSP-26 Periodically update the Emergency Response Plan.
- PSP-27 Recognize the autonomy of individual fire districts within the county.

Implementation Strategies, Programs and Priorities:

- PSI-9 Encourage employers to permit paid time off and flexible schedules for those individuals involved in volunteer fire fighting and training.

Implements policy:	PSP-9
Priority:	1
Lead Agency:	Glenn County Board of Supervisors
Coordinating Agency:	Local fire districts

PSI-10 As growth occurs attempt to maintain a service level based on ISO (Insurance Service Organization) ratings of no less than eight for rural areas and no less than five for urbanized areas.

Implements policies: PSP-10, PSP-11
Priority: 1
Lead Agency: Local fire districts
Coordinating Agency: Glenn County Board of Supervisors

PSI-11 Consult with fire protection agencies during the initial review of development proposals.

Implements policies: PSP-11, PSP-15
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service

PSI-12 Utilize the Local Agency Formation Commission (LAFCo) to review the efficiency and cost effectiveness of current fire service boundaries and modify those boundaries over time as development trends dictate.

Implements policies: PSP-12, PSP-18
Priority: 2
Lead Agency: Glenn County Local Agency Formation Commission
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, local fire districts

PSI-13 Actively seek funding to support additional fire fighting personnel and services.

Implements policies: PSP-13, PSP-27
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Local fire districts

PSI-14 Require as a condition of approval for development permits the establishment of a Mello-Roos district and/or fire service impact fees, or other similar funding mechanisms.

Implements policies: PSP-11, PSP-13, PSP-14
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Auditor -Tax Collector, local fire districts

PSI-15 Condition development permits to incorporate fire prevention techniques into the project design.

Implements policies: PSP-16, PSP-17
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-16 Update the County's design and development standards to reflect contemporary fire prevention practices and apply those criteria to development permits.

Implements policies: PSP-16, PSP-17
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service, Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Department

PSI-17 Enter and/or maintain cooperative fire protection agreements with the cities of Willows and Orland, the California Department of Forestry and U.S. Forest Service.

Implements policies: PSP-18, PSP-19
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Orland City Council, Willows City Council, Orland Fire Department, Willows Fire Department, California Department of Forestry, U.S. Forest Service

PSI-18 Refer all building and other development permits for structures in areas subject to potential wildland fires to the California Department of Forestry.

Implements policies: PSP-15, PSP-20
Priority: 1
Lead Agency: Glenn County Building Department
Coordinating Agency: California Department of Forestry

PSI-19 Require developers of property to install the necessary water system infrastructure to County standards.

Implements policy: PSP-21
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-20 Amend local ordinances to incorporate the State's fire safety regulations.

Implements policy: PSP-22
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: County Counsel, Glenn County Board of Supervisors,
Glenn County Planning Commission

PSI-21 Adopt and maintain a countywide house numbering system.

Implements policy: PSP-23
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission, Glenn County Planning
Department, Glenn County Building Department, local fire
districts

PSI-22 Establish a procedure for assigning house numbers through the building permit process.

Implements policy: PSP-23
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Building Department, Glenn County Public
Works Department, Glenn County Board of Supervisors

PSI-23 Develop a program for assigning numbers to existing structures.

Implements policy: PSP-23
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Local fire districts,
Glenn County Board of Supervisors

PSI-24 Adopt a finding when approving discretionary permits that the project adequately
provides for and/or does not impede emergency response.

Implements policy: PSP-24
Priority: 1
Lead Agency: Glenn County Planning Department,
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County
Planning Commission

PSI-25 Actively seek funding to develop fire safety public awareness and education programs.

Implements policy: PSP-25
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Local fire districts

PSI-26 Coordinate with the Glenn County Disaster Council and the Director of Emergency Services to update the Emergency Response Plan every five years.

Implements policy: PSP-26
Priority: 2
Lead Agency: Glenn County Sheriff's Department
Coordinating Agencies: Glenn County Disaster Council, Director of Emergency Services, Glenn County Public Works Department, local fire districts, City Police Departments, Glenn County Public Health Department, Glenn County Planning Department

5.2.3 Geologic Hazards.

Background:

Geologic hazards must be addressed in the safety and open space elements. The safety element addresses risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; and subsidence and other geologic hazards. In addition to establishing appropriate policies and programs, known seismic and other geologic hazards must be mapped. Issues which must be addressed in the open space element include special management or regulation of areas containing special or hazardous conditions, such as earthquake fault zones and unstable soils, to protect public health and safety. Geologic hazards are discussed in Section 3.3 of the Environmental Setting Technical Paper and Section 4.0 of the Public Safety Issue Paper.

Geologic hazards in Glenn County include the potential for landslides, subsidence, erosion and soil expansion. When compared to other areas of the State, the county is in a relatively inactive seismic area. The areas of highest apparent landslide potential are in the mountain and foothill regions. The eastern portion of the county has the most potential for subsidence activity due to groundwater withdrawal and natural gas extraction. The potential for water runoff-related erosion occurs both in the foothill areas and on the valley floor along streambanks. Much of the county contains expansive soils.

As required by State law, areas subject to identified hazards have been defined and mapped in the Environmental Setting Technical Paper and the Public Safety Issue Paper. The following goals, policies, implementation strategies and programs address these potential hazards and identify methods for minimizing risks associated with geologic hazards.

Goal:

PSG-3 Protection and enhancement of the quality of life by reducing the loss of life and personal property due to geologic hazards.

Policies:

It shall be the policy of Glenn County to:

- PSP-28 Promote sound agricultural: soil and development practices which conserve soil resources and avoid or mitigate impacts associated with erosion.
- PSP-29 Protect valley streamcourses from the effects of erosion.
- PSP-30 Require erosion control plans for development proposed on sloping land.
- PSP-31 Require a site specific geological investigation prior to development within areas of high landslide risk.
- PSP-32 Monitor gas and water well production in order to evaluate subsidence activity.
- PSP-33 Enforce the requirements of the Uniform Building Code for all development in order to protect people, property and improvements from seismic and other geologic hazards.

Implementation Strategies, Programs and Priorities:

- PSI-27 Assist the Resource Conservation District in its efforts to provide educational programs which increase public awareness of erosion prevention techniques.

Implements policy: PSP-28
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Public Works Department, Glenn County Agricultural Commissioner, Glenn County Board of Supervisors, Soil Conservation Service

- PSI-28 Incorporate into the building permit/grading permit process a procedure for requiring an erosion control plan in areas subject to water runoff-related erosion.

Implements policies: PSP-29, PSP-30
 Priority: 2
 Lead Agency: Glenn County Building Department
 Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, Glenn County Board of Supervisors

- PSI-29 Incorporate into the building permit process a procedure for requiring geologic reports in areas subject to landslide hazards as identified in the General Plan.

Implements policy: PSP-31
 Priority: 2
 Lead Agency: Glenn County Building Department
 Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

- PSI-30 Require applications for permits for gas and water wells to be drilled in the county to contain sufficient base data that subsequent periodic measurements for subsidence can be performed and compared against the original data.

Implements policy: PSP-32
Priority: 2
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Planning Department, State Department of Water Resources

PSI-31 Assign responsibility for monitoring subsidence activity to an interested department/agency.

Implements policy: PSP-32
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, Glenn County Health Department.

PSI-32 Continue to require building permits and subsequent inspections for all construction activities within the county.

Implements policy: PSP-33
Priority: 1
Lead Agency: Glenn County Building Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Department, Glenn County Public Works Department

5.2.4 Air Quality.

Background:

Air quality must be addressed in both the open space and circulation elements. The open space element includes policy which preserves as open space areas required for the protection and enhancement of air quality. Air pollution from motor vehicles may be addressed in the circulation element as deemed appropriate by the local jurisdiction. Air quality is discussed in Section 3.4 of the Environmental Setting Technical Paper and Section 5.0 of the Public Safety Issue Paper.

Air quality standards are set at both the federal and State levels. The Glenn County Air Pollution Control District is responsible for the planning and maintenance/attainment of these standards at the local level. The pollutants in Glenn County for which standards have been established include ozone and particulates (PM10). The county has been designated as a nonattainment area for both of these pollutants by the State. The probable sources of these pollutants include motor vehicles, stationary sources, agricultural: air quality burning of field crops and orchard waste, cultivating and harvesting of crops, driving on unpaved roads, traffic on I-5, and transport of pollutants from the Sacramento metropolitan area.

Pursuant to the California Clean Air Act of 1988, an Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin has been adopted. The Plan is designed to achieve a

reduction in basinwide emissions and proposes control measures to be adopted to achieve mandatory reduction. The following goals, policies, implementation strategies and programs reflect and incorporate these control measures as well as support land use decisions which will protect and enhance local air quality.

Goal:

PSG-4 Protection and enhancement of air quality.

Policies:

It shall be the policy of Glenn County to:

- PSP-34 Support State programs to reduce backyard and agricultural: air quality burning, including development of alternatives to rice straw burning and creating markets for rice straw.
- PSP-35 Review development requests to determine the impact such development will have on the existing air quality and for compliance with the air pollution reduction measures specified in the Glenn County Air Quality Attainment Plan.
- PSP-36 Promote jobs/housing balance when evaluating development projects.
- PSP-37 Encourage design of new development which minimizes automobile trips and maximizes other modes of transportation.

Implementation Strategies, Programs and Priorities:

PSI-33 Monitor and participate in State efforts to reduce agricultural: air quality burning.

Implements policies: PSP-34, NRP-4
Priority: 2
Lead Agency: Glenn County Air Pollution Control District
Coordinating Agency: Glenn County Agricultural Commissioner

PSI-34 Require that a finding be made that development projects are in compliance with the Air Quality Attainment Plan, prior to approval.

Implements policy: PSP-35
Priority: 1
Lead Agency: Glenn County Planning Department,
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Air Pollution Control District

PSI-35 Require that a finding be made that a proposed development project will make a positive contribution toward maintaining or improving the jobs/housing balance within the county, prior to approval.

Implements policy: PSP-36

Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-36 Require adoption of "PDR" (Planned Development Residential) or "PDC: development control" (Planned Development Commercial) zoning for any new development of forty acres or more, and apply design techniques which integrate uses, including jobs and houses, and which minimize automobile traffic while maximizing other forms of travel.

Implements policies: PSP-36, PSP-37
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

5.2.5 Flood Hazards.

Background:

Three of the mandated elements, land use, open space, and safety, must address the issue of flooding and related hazards. The land use element identifies areas which are subject to flooding. The open space element addresses the management and regulation of floodplains. The protection of the local community from flood hazards is addressed in the safety element. Flood hazards are discussed in Section 3.5 of the Environmental Setting Technical Paper and Section 6.0 of the Public Safety Issue Paper.

Most of the mountain and foothill areas within the county drain well, but parts of the valley floor do not, due to relatively level terrain and poorly drained soils. Flood hazard areas within Glenn County have been mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRM). However, these maps are designed for use in determining flood insurance needs and do not necessarily show all areas subject to flooding, such as agricultural: flooding areas which have flooding potential due to irrigation water delivery systems and agricultural practices. Severe flooding is prevented in the county by flood control dams on Stony Creek and the Sacramento River. Designated floodways have been mapped and adopted by the State Reclamation Board for three areas in the county: the Sacramento River, the Colusa Drain, and Stony Creek. The State has jurisdiction within these designated floodways and supersedes local control.

State law mandates that flooding hazards be addressed, including identifying and mapping areas within floodplains or areas subject to flooding. These maps are located in the Public Safety Issue Paper. The following goals, policies, implementation strategies and programs address potential hazards due to flooding and address measures to reduce related risks.

Goal:

PSG-5 Protection and reduction of loss of life and personal property due to flooding.

Policies:

It shall be the policy of Glenn County to:

- PSP-38 Recognize the special status of lands located within the designated floodways adopted by the State Reclamation Board.
- PSP-39 Support efforts to revise the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the areas around Hamilton City, Willows and Orland in order to improve their accuracy.
- PSP-40 Endeavor to avoid areas subject to flooding when considering approval of new development.
- PSP-41 Require the installation of storm drain and other flood protection/prevention improvements as a condition of all new development approvals.
- PSP-42 Encourage the formation of a countywide service area or individual storm drain maintenance districts to finance and construct needed flood control improvements.

Implementation Strategies, Programs and Strategies:

PSI-37 Apply floodway (Streamside Protection) zoning: application of to lands included within the Floodway Overlay, and show areas subject to Zone A (100 year flooding) on a Floodplain Overlay as a constraint to development.

Implements policies: PSP-38, PSP-40, PSP-45
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, State Reclamation Board

PSI-38 Continue to press the U.S. Department of Housing and Urban Development to make revisions to the FEMA FIRM maps for the areas around Hamilton City, Willows and Orland.

Implements policy: PSP-39
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Department

PSI-39 Condition development permits to require installation of drainage and flood protection improvements: requirement.

Implements policy: PSP-41
 Priority: 2
 Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Building Department, Glenn County Planning Commission

PSI-40 Require new development to become a part of a service area or maintenance district for maintenance of drainage and/or flood protection improvements.

Implements policy: PSP-42
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Planning Department

PSI-41 Study the feasibility of a countywide service area to finance and undertake needed storm drainage and flood control measures.

Implements policy: PSP-42
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

5.2.6 Water Quality.

Background:

The issue of water quality must be addressed in both the open space and conservation elements of the general plan. As discussed under Section 5.1.2, Water Resources, one of the purposes of the open space element is to manage and preserve watershed areas, groundwater and surface water. The conservation element must address the conservation, development and utilization of natural resources including water and its hydraulic force, rivers and other waters, reclamation of waters, prevention and control of the pollution of streams and other waters, and the protection of watersheds. Water quality is discussed in Section 3.5 of the Environmental Setting Technical Paper and Section 7.0 of the Public Safety Issue Paper.

Water quality in Glenn County is generally good. Because the main source of domestic water in Glenn County is groundwater, maintenance of groundwater quality is of primary importance to county residents. There have been cases of groundwater contamination reported due to the use of individual septic tank systems in areas containing extremely porous soils with a high groundwater table. Other potential sources of groundwater pollutants include chemicals used in the growing and processing of agricultural: water products, gas well drilling and industrial sources.

Surface water quality is regulated through the National Pollutant Discharge Elimination System (NPDES), which is a federal program administered by the Environmental Protection Agency and locally by the State Regional Water Quality Control Board. There are also programs in place, such as the Rice Herbicide Action Plan, which address protection of ground and surface water from contamination related to agricultural: water practices. The Glenn County Health Department regulates the installation of individual septic systems and wells.

The following goals, policies, implementation strategies and programs focus on support of existing regulatory and compliance efforts which protect groundwater and surface water quality.

Goal:

PSG-6 Protection and enhancement of water quality.

Policies:

It shall be the policy of Glenn County to:

- PSP-43 Support ongoing regulatory and compliance efforts at the federal and State level for the protection of water quality.
- PSP-44 Support the Rice Herbicide Action Plan and encourage other agricultural: water quality practices which reduce the threat of surface water pollution from agricultural chemical use.
- PSP-45 Zone floodways and stream channels in a manner that promotes protection of water quality.
- PSP-46 Discourage on-site sewage disposal systems on small lots in areas containing gravelly soils.
- PSP-47 Support the preparation of area groundwater studies to ensure the protection of groundwater and to ensure that the holding capacity of the area is not exceeded.
- PSP-48 Support education programs which increase the public awareness of the proper disposal of hazardous wastes in order to protect groundwater quality.

Implementation Strategies, Programs and Priorities:

PSI-42 Sponsor and assist with educational efforts which have as a goal greater public awareness and compliance with established water quality standards.

Implements policies: PSP-43, PSP-44
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Agricultural Commission

PSI-43 Actively seek funding to develop hazardous waste disposal educational programs.

Implements policy: PSP-48
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Agricultural Commissioner

PSI-44 Amend County ordinances to prohibit onsite sewage disposal systems on parcels smaller than two acres in size, within areas designated as septic limitations overlay, subject to final review and decision by the Glenn County Health Department.

Implements policy PSP-46

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors, Glenn County Planning Commission

5.2.7 Noise.

Background:

State General Plan law requires that noise sources be identified and problems appraised in a noise element. The noise element must recognize the guidelines adopted by the State Department of Health Services, Office of Noise Control, and analyze and quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways.
- Primary arterials and major local streets.
- Railroad operations and ground rapid transit systems.
- Commercial and general aviation operations.
- Industrial plants.
- Other ground stationary sources which contribute to the community noise environment.

Noise contours must be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The adopted noise element must also serve as a guideline for compliance with the state's noise insulation standards. These contours are described in Section 6.11 of this document. Noise is discussed in Section 3.6 of the Environmental Setting Technical Paper and Section 8.0 of the Public Safety Issue Paper.

Major noise sources identified in Glenn County include vehicular traffic on major roadways, railroad operations, Orland Haigh Field Airport, Willows Glenn County Airport, industrial sources, agricultural processing facilities, and miscellaneous farming operations. Control of noise and its sources is most effectively implemented through the adoption of a local Noise Control Ordinance. Such an ordinance requires support from the general plan-established noise exposure standards and land use compatibility guidelines. The following goals, policies, implementation strategies and programs support the adoption of such an ordinance. A Draft Noise Control Ordinance is included in the Public Safety Issue Paper.

Goal:

PSG-7 Protection of county residents from the harmful and annoying effects of exposure to excessive noise and preservation of the rural noise environment in Glenn County.

Policies:

It shall be the policy of Glenn County to:

- PSP-49 Regulate fixed noise sources within the county through the adoption of a local Noise Control Ordinance.
- PSP-50 Allow new development in compliance with the land use compatibility guidelines and noise level standards contained in this General Plan.
- PSP-51 Require acoustical analyses for any development proposal which does not meet the recommended noise level standards, subject to the requirements contained in this General Plan.
- PSP-52 Require that noise mitigation measures necessary to achieve compliance with land use compatibility guidelines and noise level standards be incorporated into site planning and project design.
- PSP-53 Encourage the separation of noise sensitive uses and high noise generating uses.
- PSP-54 Encourage the use of standard operating procedures for aerial application aircraft as a means of minimizing noise associated impacts to residential development.
- PSP-55 Plan land uses around airports with aircraft noise in mind.
- PSP-56 Maintain CNEL (Community Noise Equivalent Level) lines around the Orland Haigh Field Airport and the Willows Glenn County Airport.

Implementation Strategies, Programs and Priorities:

PSI-45 Adopt a Noise Control Ordinance.

Implements policies: PSP-49, PSP-52, PSP-53
 Priority: 2
 Lead Agency: Glenn County Health Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, County Counsel, Glenn County Planning Department

PSI-46 Review development proposals for compliance with the land use compatibility guidelines and noise level standards contained in this General Plan.

Implements policies: PSP-50, PSP-51, PSP-52, PSP-53
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Health Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-47 Establish a procedure to require acoustical analyses that meets the requirements contained in this General Plan.

Implements policies: PSP-51, PSP-52
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Department

PSI-48 Enforce the State Noise Insulation Standards (California Code of Regulations, Title 24 and Chapter 35 of the Uniform Building Code (UBC)).

Implements policies: PSP-50, PSP-51, PSP-52
Priority: 1
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Planning Department

PSI-49 Review and update the noise standards contained in this General Plan every five years to ensure that noise exposure information and specific policies are consistent with changing conditions within the community and with noise control regulations or policies enacted after the adoption of this Plan.

Implements policies: PSP-49, PSP-50
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-50 Distribute public education materials to the aerial applicators which encourage standard operating procedures for aerial application aircraft such as:

- maintaining minimum altitudes
- standard take-off and landing patterns
- avoiding overflight of densely populated areas

Implements policy: PSP-54
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Agricultural Commissioner, Glenn County Airport Advisory Committee

PSI-51 Maintain "AV" (Airport) zoning on properties surrounding the Willows Glenn and Orland Haigh Field airports.

Implements policy: PSP-55
Priority: 1

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-52 Refer development proposals on properties located within the established CNEL lines to the Airport Land Use Commission prior to taking an action.
Implements policies: PSP-55, PSP-56
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Airport Advisory Committee

5.2.8 Solid and Hazardous Waste: Goals and Policies.

Background:

State law requires that the land use element of the general plan address future solid waste disposal sites. There is one landfill in operation within Glenn County located on approximately 192 acres on County Road 33, approximately five miles west of Artois. It is estimated that this facility will reach only fifteen percent of its capacity during the life of this General Plan. Because the existing facility will meet projected disposal needs, no new solid waste disposal sites are required to be identified. Solid and hazardous waste are discussed in Section 3.8 of the Environmental Setting Technical Paper and Section 9.0 of the Public Safety Issue Paper.

An Integrated Waste Management Plan must be prepared for the County pursuant to AB 939 which addresses such issues as source reduction and recycling. This 1989 legislation requires a twenty-five percent reduction in solid waste disposed to a landfill by 1995 and a fifty percent reduction by the year 2000. The General Plan goals, policies, implementation strategies and programs addressing solid waste management support this mandatory reduction and are consistent with the Source Reduction and Recycling Elements and other components of the Integrated Waste Management Plan.

In 1991 Glenn County adopted a Hazardous Waste Management Plan (HWMP) which contains siting criteria for proposed specified hazardous waste facilities. State law requires that once adopted, the HWMP must be incorporated into the general plan or adopted by ordinance. This Plan was incorporated into the Glenn County General Plan in December, 1991. No changes to the HWMP are proposed with this Plan revision.

Goal:

PSG-8 Reduce the County's reliance on landfilling, reduce the volume of the solid waste stream, increase recovery of materials, and dispose of remaining waste in the most environmentally and fiscally responsible manner available.

Policies:

It shall be the policy of Glenn County to:

- PSP-57 Achieve maximum waste diversion through the expansion and/or development of cost-effective recycling and source reduction programs tailored for both rural and urbanized jurisdictions in the county.
- PSP-58 Extend the useful life of the existing landfill site.
- PSP-59 Formulate alternatives to the current facilities for the collection and disposal of solid waste based on capacity and use of transfer stations.
- PSP-60 Establish compatibility standards for landfill, recycling, and composting facilities.
- PSP-61 Develop an effective public information program aimed at achieving maximum participation, diversion of materials and preservation of landfill space.
- PSP-62 Promote reduction of the amount of packaging material generated by local businesses through use of alternative materials.
- PSP-63 Support State and national efforts that establish incentives for packaging to meet certain recycled content or post-consumer percentage.
- PSP-64 Investigate the types of local incentives that can be implemented to promote business/industry source reduction and recycling activities.
- PSP-65 Assure that local plans and ordinances accommodate and facilitate the siting of recycling facilities, composting facilities, transfer stations, and pyrolysis facilities.
- PSP-66 Encourage the establishment of commercial recycling activities within the county.
- PSP-67 Develop a regional plan, with the cities of Willows and Orland, for the siting and development of a private sector-operated yard and leaf material composting facility.
- PSP-68 Expand leaf collection programs to the agricultural and farming sector.
- PSP-69 Reduce the volume of used tires disposed of in Glenn County.
- PSP-70 Retain all existing Glenn County solid waste disposal facilities during the short-term and medium-term planning periods for the Source Reduction and Recycling Elements.
- PSP-71 Increase the recovery rate for cans and bottles that have redemption value.
- PSP-72 Increase recovery of corrugated paper and newspaper currently in the waste stream.
- PSP-73 Identify potential sites for septage disposal, and gas well drilling mud disposal.

Implementation Strategies, Programs and Priorities:

PSI-53 Identify and capitalize on all applicable funding mechanisms from federal, State and local sources, including the Solid Waste Enterprise Fund and/or grant funds, in order to pay for integrated solid waste management programs.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-54 Identify feasible funding options available to local government to support and develop necessary waste management programs and policies, e.g. land use fees, solid waste assessments, tipping fees, etc.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-55 Coordinate cooperative administration of solid waste programs at the local level between county, city and local community leaders.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Orland City Council, Willows City Council

PSI-56 Identify and research available markets for collected materials that present sound economic alternatives for the County.

Implements policy: PSP-66
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc.

PSI-57 Track ongoing research into new markets and technologies for items generated within the county that are not normally considered marketable commodities.

Implements policy: PSP-66
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc.

PSI-58 Develop and adopt a County ordinance establishing a waste reduction and recycling policy.

Implements policies: PSP-57, PSP-58, PSP-60
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: County Counsel, Glenn County Board of Supervisors, Glenn County Planning Department

PSI-59 Develop and implement procurement/solid waste policies and practices in which preference is given to purchase of recyclables and reusable products. Review and update policy annually in order to remain current with new products and technology.

Implements policies: PSP-57, PSP-58, PSP-60
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-60 Develop and implement a source reduction education program targeting consumers, businesses and large generators of waste.

Implements policies: PSP-61, PSP-62
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Orland and Willows Area Chambers of Commerce, Glenn Chamber of Commerce Economic Development, Inc.

PSI-61 Monitor State and national source reduction legislation on an ongoing basis.

Implements policies: PSP-63, PSP-64
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: County Counsel

PSI-62 Continue to provide technical assistance and information to waste generators on an ongoing basis.

Implements policy: PSP-64
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Orland and Willows Area Chambers of Commerce, Glenn Chamber of Commerce Economic Development, Inc.

PSI-63 Develop and distribute public education materials on source reduction activities. Review and update source reduction education/public relations program annually.

Implements policies: PSP-61, PSP-64
Priority: 1

Lead Agency: Glenn County Public Works Department
Coordinating Agencies: School districts, Orland and Willows Area Chambers of Commerce, Glenn Chamber of Commerce Economic Development, Inc.

PSI-64 Establish an annual Waste Reduction Award for businesses.

Implements policy: PSP-64
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Orland and Willows Area Chambers of Commerce, Glenn Chamber of Commerce Economic Development, Inc.

PSI-65 Promote business usage of the CALMAX (statewide materials exchange) program.

Implements policy: PSP-64
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Orland and Willows Area Chambers of Commerce, Glenn Chamber of Commerce Economic Development, Inc.

PSI-66 Establish differential garbage rates which include an economic incentive to reduce the volume of waste.

Implements policies: PSP-58, PSP-64
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-67 Study and implement incentives to encourage source reduction businesses.

Implements policy: PSP-64
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc., Glenn County Board of Supervisors, Glenn County Planning Department

PSI-68 Develop systems to quantify diversion to source reduction programs.

Implements policy: PSP-57
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Source reduction program operators

PSI-69 Provide public spaces and publicity through Chambers of Commerce for activities which promote source reduction, reuse and/or repair.

Implements policies: PSP-57, PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Chambers of Commerce

PSI-70 Develop collection and processing programs for high density polyethylene plastic (HDPE), both colored and clear, and for ferrous/tin cans as the market develops.

Implements policies: PSP-66, PSP-71
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Source reduction program operators

PSI-71 Identify and develop local markets and long-haul collection/transfer mechanisms into Sacramento, Redding or the Bay Area. Evaluate market potentials for materials collected from individual jurisdictions.

Implements policies: PSP-59, PSP-66
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Chamber of Commerce Economic Development, Inc.

PSI-72 Amend the Glenn County Zoning Code to allow recycling collection centers (limited to the collection and assemblage of solid waste materials from previously prepared products, not including waste food materials, for transport to other sites for recycling, processing, manufacture or treatment) as permitted uses in the "SC", "LC" and "CC" Zones (when operated as an accessory use) and in the "M" Zone.

Implements policies: PSP-65, PSP-66
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Public Works Department

PSI-73 Develop programs for the collection of the recyclable glass currently in the waste stream.

Implements policies: PSP-66, PSP-71
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Source reduction program operators

PSI-74 Develop programs and identify markets for the collection and recycling of commingled plastics.

Implements policies: PSP-66, PSP-71

Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Source reduction program operators

PSI-75 Evaluate and perform an initial feasibility study of the development of a pyrolysis facility within the county.

Implements policies: PSP-64, PSP-65
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Planning Department

PSI-76 Place centrally located collection bins for the loose collection of newspaper and corrugated containers.

Implements policies: PSP-66, PSP-72
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, shopping center owners

PSI-77 Place recycling bins at park sites and provide requirements for recycling receptacles at special events.

Implements policy: PSP-71
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Event sponsors

PSI-78 Establish design requirements that address the integration of recycling containers in new developments.

Implements policy: PSP-65
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-79 Identify composting end-use markets through local and regional market exploration.

Implements policies: PSP-67, PSP-68
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Chamber of Commerce Economic Development, Inc.

PSI-80 Explore the potential of chipping wood waste for use at co-generation facilities.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Potential wood waste generators, cogeneration facility operators

PSI-81 Evaluate co-composting alternatives with food waste and mixed paper.

Implements policy: PSP-57
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Health Department, Glenn County Planning Department

PSI-82 Work closely with city representatives for the establishment of a pilot or short-term leaf material processing operation and agricultural collection program.

Implements policies: PSP-67, PSP-68
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Agricultural Commissioner, City of Orland, City of Willows

PSI-83 Complete a site analysis of the Glenn County landfill to determine potential drop-off, processing/transfer and long-term composting facility locations for yard and wood waste.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Planning Department

PSI-84 Study the feasibility and impacts of developing a procurement policy for retread tires on government vehicles.

Implements policy: PSP-57, PSP-69
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-85 Develop a used tire collection program, in conjunction with a commercial collector, involving the placement of centrally located collection bins at locations in Willows and Orland.

Implements policy: PSP-69
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Potential commercial collector, tire service operators

PSI-86 Evaluate local ordinances encouraging advanced disposal fees or "deposits" on tires sold through retail outlets.

Implements policy: PSP-69
Priority: 2
Lead Agency: Glenn County Public Works Department,
Coordinating Agencies: County Counsel, tire sales outlets

PSI-87 Develop a material collection program and source separation requirements at new construction projects.

Implements policies: PSP-57, PSP-58, PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Waste haulers, building contractors

PSI-88 Inform the general public about local solid waste issues and the continued importance of reducing waste generation, participation in recycling and becoming involved in the County's effort to meet State mandates.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Chambers of Commerce, newspapers

PSI-89 Initiate a program to explain what materials can be recycled and what materials are being collected for recycling, including technical assistance programs to be offered to local commercial sources in order to promote waste reduction.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Waste haulers

PSI-90 In conjunction with local school districts, develop an educational program geared toward elementary school students, and develop programs and/or materials for presentation to students in seventh through twelfth grade.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: School Districts, Glenn County Superintendent of Schools

PSI-91 Develop a booth presentation that can be easily transported to jurisdictional events such as fairs, community activity days or permanent presentations at park centers and fairgrounds.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Chambers of Commerce, service clubs

PSI-92 Continue to cultivate and take advantage of local support and participation by local community groups to promote and distribute information on waste reduction.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Service clubs, Chambers of Commerce

PSI-93 Establish public recognition and achievement awards for the private sector that could be awarded on a semi-annual or annual basis, and sponsored by city and County government, local chambers of commerce or other local organizations.

Implements policy: PSP-61
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Chambers of Commerce, Cities of Orland and Willows

PSI-94 Provide literature for free distribution to the local business and residential community, pointing out the nearest recycling locations and asking their cooperation in reducing waste.

Implements policy: PSP-61
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Newspapers, utility companies

PSI-95 Identify County staff and initiate the process of establishing a liaison committee of jurisdictional representatives willing to develop and implement education and information programs. Establish directives and guidelines under which the committee will function.

Implements policy: PSP-61
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-96 Identify various media sources and involve them in program initiation. Solicit their cooperation in providing public service space for advertising and promotion or programs.

Implements policy: PSP-61
Priority: 1
Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Newspapers, radio and television stations

PSI-97 Identify all available existing waste reduction programs active in the county relative to source reduction, recycling and composting.

Implements policy: PSP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Cities of Willows and Orland

PSI-98 Identify funding availability, sources of revenues, other mechanisms of funding and realistic appraisals of the depth of the programs that can be sponsored and supported by the County, and solicit contributions from private enterprises, corporate sponsors or other sources to support programs.

Implements policy: PSP-61
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-99 Identify program priorities based upon financial resources, greatest percent of population reached, successes in similar counties and greatest impact on waste reduction activities.

Implements policy: PSP-64
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-100 Develop a system for providing long-term funding for capital improvement projects and contribution to closure and post-closure funds for the landfill.

Implements policy: PSP-58
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

PSI-101 Amend the Glenn County Zoning Code to permit solid waste transfer stations, recycling facilities, composting facilities, and pyrolysis facilities in appropriate zones.

Implements policy: PSP-65
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-102 Designate sites for septage disposal and gas well drilling mud disposal on an overlay to the Land Use Diagram and reference the overlay when reviewing development proposals.

Implements policy: PSP-73
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Public Works Department, Glenn County Health Department

PSI-103 Require conditional use permits for septage disposal and gas well drilling mud disposal sites.

Implements policy: PSP-73
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-104 Classify all existing solid waste disposal facilities as conforming uses and protect them from encroachment by incompatible uses.

Implements policy: PSP-70
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

5.3. COMMUNITY DEVELOPMENT.

5.3.1 Land Use/Growth: Goals and Policies.

Background:

The general distribution and general location and extent of land use for housing, business, industry, open space, agriculture, natural resources, recreation, education, public buildings and grounds, solid and liquid waste disposal facilities, and other public and private uses of land are all required components of the land use element. Land use classifications for each class of land use identified must be defined in order to distinguish between levels of intensity and allowable uses. With standards of population density and building intensity established for each of the land use classifications, the general plan is used to guide the physical development and growth of the county. The land use element has the broadest scope of all elements of the general plan and plays the central role of correlating all land use issues into a set of coherent development policies. Land use and growth are discussed in Sections 4.1 and 4.2 of the Environmental Setting Technical Paper and Section 2.0 of the Community Development Issue Paper.

Agriculture is the single most important component of the county's economic base, protection of agricultural land is of great importance. Land use patterns, goals and policies have been established which promote agricultural land preservation and protect these lands from urban encroachment. It is the intent of the County to direct development away from valuable agricultural lands into urban areas which can accommodate growth and provide adequate public services, including community sewer and water, police and fire protection. To accomplish this, urban limit lines (ULLs) will be established around the cities of Orland and Willows, the unincorporated communities of Hamilton City, Artois, Elk Creek and Butte City, and future planned communities. These lines represent those areas where growth can be accommodated because full urban services and infrastructure sufficient to serve development is either available now or can be made available.

Other areas where new development may occur include: designated development nodes along Interstate 5 and within local service centers. Six development nodes: list have been identified along I-5 at the following interchanges:

- Road 7°Road 39
- Road 27°Road 57
- Road 33°Road 68

Specific land use designations have not been assigned to these interchanges; rather, they have been shown as generalized areas for development. Before actual development may occur, development proposals will be evaluated on their merit in compliance with policies and standards established in this General Plan.

Local service centers include those small rural communities which have developed with residential and commercial uses, and function as service centers to surrounding farms and rural areas. Local service centers provide a limited range of goods and services locally and provide housing for persons who are employed on local farms and in agriculturally-related activities. Community sewer and water services do not exist in these communities, and are not proposed within the life of this Plan. It is intended that no peripheral expansion will occur in these areas; only infill development will be allowed after case-by-case evaluation. These local service centers: list include the unincorporated communities of:

- Bayliss
- Blue Gum
- Codora Four Corners
- Glenn
- Ord Bend

It is the intent of the County to promote orderly growth by directing new growth into areas where it can be accommodated and served adequately, and to avoid potential land use conflicts through the appropriate distribution and regulation of land uses. Only compatible uses will be encouraged in agricultural areas; compatible uses are defined as those uses capable of existing together without conflict or ill effect.

Goal :

CDG-1 Preservation of agricultural land.

Policies:

It shall be the policy of Glenn County to:

- CDP-1 Establish urban-rural interface areas within which all new development shall incorporate a buffer zone to separate the development from surrounding agricultural land. This requirement may be eliminated or modified if there are significant topographical differences, substantial vegetation, or existing physical barriers between urban and rural areas.

- CDP-2 Require that permanent, well-defined buffer areas be provided as part of new non-agricultural development proposals located adjacent to agricultural land uses on Important Farmlands designated as prime, of statewide importance, unique, or of local importance. These buffer areas shall be dedicated in perpetuity, shall be of sufficient size to protect agriculture from the impacts of incompatible development and to mitigate the effects of agricultural operations on adjacent land uses, and shall be credited as open space.

- CDP-3 Use permanent physical features or barriers to separate agricultural, from rural or urban uses wherever possible. Such features include rivers, streams, canals, roads, railroads, and topographical features.

- CDP-4 Encourage clustering of residential development when parcels are adjacent to commercial agricultural lands, so as to place dwellings as far as possible from the agricultural land.

- CDP-5 Encourage use of rural residential lot design which allows for the resubdivision of such lots, particularly when rural residential development occurs in proximity to growing communities.

- CDP-6 Utilize urban limit lines as a method to preserve agricultural; land and promote orderly growth in the county.

- CDP-7 Solicit and encourage the voluntary donation of conservation easements or other development restrictions to the County or a qualified private nonprofit corporation to preserve the agricultural use of the land in areas designated for agricultural use, where subdivision of land would promote incompatible development.

- CDP-8 Provide for the orderly transition of lands within urban limit lines from agricultural; to urban use, and encourage and allow agricultural uses to continue until such time as urban development occurs.

- CDP-9 Permit the conversion of agricultural: land conversion or open land to urban development within urban limit lines to occur only as an extension of the

urbanizing area. Urban limit lines shall not be used as justification for leapfrog development.

- CDP-10 Encourage the preservation of agricultural lands, including those lands in production, and those which are potentially productive.
- CDP-11 Direct nonagricultural development to marginal agricultural lands, avoiding Important Farmlands, wherever feasible alternative sites have been identified.

Goal:

CDG-2 Avoidance of land use conflicts in agricultural: land use conflicts areas.

Policies:

It shall be the policy of Glenn County to:

- CDP-12 Utilize a "Right to Farm" Ordinance as a method to reduce the impacts of potential land use conflicts.
- CDP-13 Require any new agricultural use or application to mitigate anticipated conflicts between proposed new agricultural uses and existing agricultural activities.
- CDP-14 Require environmental review of all applications for residential building permits on undeveloped lots in antiquated subdivisions located in agriculturally designated areas.
- CDP-15 Encourage the merger of lots or the reversion to acreage of lots in antiquated subdivisions in areas where development of the lots is substandard for agricultural purposes, and where development to non-agricultural use would impair surrounding agricultural operations.
- CDP-16 Recognize that due to discrepancies arising from the original land surveys conducted in the State, which resulted in acreage shortages in sections of land, the existence of physical barriers such as canals, roads, streams, levees, etc., and parcel configuration, exceptions to minimum parcel size for properties zoned to exclusive agricultural categories may be necessary and appropriate to promote the spirit and intent of the General Plan.
- CDP-17 Encourage agricultural: water water suppliers to make changes in their service requirements to increase the minimum sized parcel to be served in agricultural areas to ten (10) acres, and recommend that new parcels created within water supply district boundaries which are less than ten (10) acres in size be detached from the district(s), except for the Orland Unit Water Users' Association, for which the minimum size shall be 5.01 acres.
- CDP-18 Within the Orland-Artois Water District, approve no zone changes allowing parcels smaller than twenty (20) acres in size, and approve no tentative maps for parcels less than twenty (20) acres in size.

CDP-19 Limit residential uses on agriculturally designated lands to farm-related single-family residences and quarters for farm labor and senior citizens, in accordance with State law.

Goal:

CDG-3 Appropriate distribution and regulation of land uses.

Policies:

It shall be the policy of Glenn County to:

CDP-20 Assure that adequate provision is made in this General Plan for all types of uses and establish coherent land use patterns.

CDP-21 Establish standards for population density and building intensity for each land use category identified on the Land Use Diagram.

CDP-22 Allow a limited number of new planned communities and include within an existing or establish a new urban limit line for all approved planned communities.

CDP-23 Allow development nodes: development along the I-5 corridor at Road 7, Road 27, Road 33, Road 39, Road 57 and Road 68, and establish urban limit lines for all approved developments. All developments within development nodes shall be developed through the Planned Development process.

CDP-24 Discourage development of new planned communities away from established urban centers unless it can be demonstrated that they are self-sufficient and functional.

CDP-25 Prepare community plans for the unincorporated communities of Artois, Elk Creek, Hamilton City and Butte City which are consistent with this General Plan.

CDP-26 Adopt land use plans for the areas within the Orland and Willows urban limit lines, as recommended by the respective city, and as modified by the County to maintain consistency with this General Plan.

CDP-27 Encourage the cities of Orland and Willows to utilize the County-adopted urban limit lines as planning boundaries for their respective General Plans.

CDP-28 Locate major new residential development in proximity to opportunities for employment.

CDP-29 Establish distinct land use categories for single family and multiple family residential uses.

CDP-30 Relate decisions concerning land use to the functional classification of nearby roadways.

- CDP-31 Encourage commercial and industrial development in areas where adequate facilities and services exist or where facilities and services can be made available, including areas within incorporated cities, planned communities and along the I-5 corridor. Adequate facilities and services shall include community water and sewer if located within an incorporated city or urban limit line. In other areas, adequacy of sewer and water service shall be as determined by local health standards/regulations.
- CDP-32 Encourage a diverse range of commercial and industrial development, consistent with community plans and the level of service available.
- CDP-33 Prevent the loss of designated industrial land to other nonindustrial uses.
- CDP-34 Ensure that industrial or commercial development which requires public water, sewer and other urban services is located within an urban limit line.
- CDP-35 Allow resource-dependent industrial uses to locate outside urban limit lines and other areas planned for development, when such uses are dependent upon close proximity to resource production lands, and are not dependent on an urban level of service.
- CDP-36 Where appropriate, promote development of well planned and designed industrial parks catering to local businesses, as well as to outside opportunities.
- CDP-37 Discourage strip commercial development and locate future commercial development in well designed commercial centers having adequate and controlled access to public roads.
- CDP-38 Allow home occupations in areas not otherwise designated for commercial and industrial use, subject to review.

- CDP-39 Design commercial and industrial subdivisions and uses to prevent the intrusion of incompatible uses.
- CDP-40 Discourage scattered unplanned urban development.
- CDP-41 Establish a procedure for utilizing development agreements in conjunction with development proposals, and provide for the rezoning of property where development agreements are violated.
- CDP-42 Encourage the clustering of radio and other communication towers exceeding present zoning height requirements in specific locations in order to minimize overall visual impacts, and to discourage unplanned location of towers.
- CDP-43 Establish a threshold for when to use gross or net acreage to determine minimum parcel size in rural residential zones.
- CDP-44 Discourage urban growth in floodplains, aquifer recharge areas, scenic and historic sites, or other sensitive areas as specified in this General Plan.
- CDP-45 Refine existing design review guidelines for application to areas within urban limit lines, and establish new and creative design guidelines for development nodes along the I-5 corridor area.
- CDP-46 Require a general plan of development for large-scale development proposals, including planned communities and development nodes, and a specific plan for planned communities.
- CDP-47 Reserve adequate sites for new and expanded public facilities needed to serve new growth and development and designate general locations for such facilities, including but not limited to schools, solid and liquid waste disposal facilities, drainage facilities, fire stations, and County government buildings and facilities.
- CDP-48 Consider septic system and septage disposal limitations when determining areas suitable for new development not served by wastewater treatment facilities, and assure that density standards allow adequate area for septage disposal.
- CDP-49 Support the orderly growth of the Willows-Glenn County and Orland-Haigh Field airports, the development of compatible uses for the areas surrounding these airports, and safeguard the general welfare of the inhabitants within the vicinity of each airport and the public in general.

Goal:

- CDG-4 Establishment and maintenance of formal lines of communication between the County and the cities.**

Policies:

It shall be the policy of Glenn County to:

- CDP-50 Provide an orderly framework for communication and coordination between the County and the cities of Willows and Orland regarding development, public services and improvements.
- CDP-51 Afford the cities of Orland and Willows the opportunity to review and comment on matters within their adopted urban limit lines and consider their recommendations in rendering land use decisions.
- CDP-52 Encourage urban development proximate to incorporated cities to occur within incorporated cities first, and within urban limit lines of incorporated cities upon satisfaction of all of the following:
- a) The city will not consent to annex or annexation is not possible under State law;
 - b) Public service impacts of development are within service capabilities of the County and affected special districts; and
 - c) The use and density is consistent with the County's General Plan and compatible with the City's General Plan.
- CDP-53 Seek equitable tax-sharing agreements for proposed annexations which address property tax, sales tax and (when applicable) redevelopment funds, in exchange for directing new urban development to incorporated cities.

Implementation Strategies, Programs and Priorities:

- CDI-1 Condition discretionary development permits for new non-agricultural uses proposed adjacent to agricultural lands to provide a buffer zone dedicated as open space.
- Implements policies: CDP-1, CDP-2, CDP-3
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-2 Require adoption of "PDR" (Planned Development Residential) zoning for new residential development proposed on parcels located adjacent to land used for commercial agriculture.
- Implements policy: CDP-4
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-3 Establish urban limit lines subject to the standards in this General Plan.

Implements policy: CDP-6, CDP-23, CDP-112, CDP-114, CDP-119, NRP-13
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Local Agency Formation Commission

CDI-4 Apply general agricultural zoning to properties within urban limit lines not presently designated for development until a General Plan amendment is approved pursuant to the standards set forth in this General Plan.

Implements policies: CDP-8, CDP-9, CDP-119
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-5 Apply the provisions of the "Right to Farm" Ordinance to all lands designated for agricultural use and to all lands in proximity to agricultural uses.

Implements policy: CDP-12
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-6 Condition discretionary planning permits to require mitigation measures which will reduce anticipated land use conflicts between the new uses and existing surrounding uses.

Implements policy: CDP-13
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-7 Amend the Glenn County Environmental Guidelines to establish a procedure for environmental review of permit applications on lots in antiquated subdivisions, subject to the standards set forth in this General Plan.

Implements policy: CDP-14
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Board of Supervisors

- CDI-8 Approve requests for the merger of lots or the reversion to acreage of lots in antiquated subdivisions when such requests are in compliance with the provisions set forth in the State Subdivision Map Act.
- Implements policy: CDP-15
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-9 Amend the Glenn County Zoning Code to allow for exceptions to minimum parcel sizes in agricultural areas as specified in this General Plan.
- Implements policy: CDP-16
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-10 Contact agricultural: water water suppliers and formally request establishment of a ten (10) acre minimum parcel size for agricultural water service.
- Implements policy: CDP-17
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Water Districts, Irrigation Districts
- CDI-11 Apply zoning to properties located within the Orland-Artois Water District that reflects a minimum parcel size of twenty (20) acres or larger.
- Implements policy: CDP-18
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Orland-Artois Water District
- CDI-12 Establish standards in this General Plan for the land use classifications shown on the Land Use Diagram.
- Implements policies: CDP-19 through CDP-21, CDP-25 through CDP-40, CDP-46, CDP 47, CDP-79, CDP-81, CDP-143, CDP-152
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-13 Prepare and adopt a Land Use Diagram which is consistent with the goals and policies of this General Plan.

Implements policies: CDP-28 through CDP-32, CDP-34, CDP-37, CDP-40, CDP-44, CDP-47, CDP-48, CDP-79, CDP-81
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-14 Apply zoning which is consistent with the Land Use Diagram and the standards set forth in this General Plan.

Implements policies: CDP-19, CDP-21, CDP-28, CDP-29, CDP-31 through CDP-37, CDP-40, CDP-43, CDP-44, CDP-47, CDP-48
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-15 Approve the development of new planned communities and development nodes consistent with the standards set forth in this General Plan.

Implements policies: CDP-22 through CDP-24, CDP-46
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-16 As circumstances warrant, undertake more in-depth planning studies of recognized communities.

Implements policies: CDP-25, CDP-26
Priority: 2 and 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-17 Apply a general agriculture designation on the Land Use Diagram to land within urban limit lines which is projected for development but which is currently vacant or used agriculturally.

Implements policy: CDP-8
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- CDI-18 Modify local procedures to provide for the use of development agreements in conjunction with development approvals, including a provision requiring rezoning if the development agreement is violated.
- Implements policy: CDP-41
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-19 Identify areas within the county where it is desirable to locate radio and other communication towers and establish a permit procedure for such uses.
- Implements policy: CDP-42
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-20 Amend the Glenn County Zoning Code to include a threshold for use of gross or net acreage when determining minimum parcel sizes in rural residential zones.
- Implements policy: CDP-43
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-21 Apply design review guidelines to development proposals located within urban limit lines and development nodes along the I-5 corridor.
- Implements policies: CDP-37, CDP-39, CDP-45, CDP-46
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-22 Establish a city/county consultation and review process for development proposals located within urban limit lines.
- Implements policies: CDP-27, CDP-50 through CDP-52
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Cities of Willows and Orland, Glenn County Public Works Department, Glenn County Health Department

CDI-23 Develop a formal written strategy for use in future tax-sharing negotiations for annexations which addresses sales tax and (when applicable) redevelopment funds, as well as property taxes.

Implements policy: CDP-53
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: County Counsel

CDI-24 Apply "M" (Industrial) zoning on all land designated for industrial use on the Land Use Diagram and enforce the regulations of the "M" classification to prevent the intrusion of nonindustrial uses into industrial areas.

Implements policy: CDP-33
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

5.3.2 Transportation/Circulation:

Background:

Transportation and circulation needs are closely tied to the location and distribution of land uses. Section 65302(b) of the Government Code requires that a circulation element be made a part of the general plan. The circulation element must address the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element. This Section contains the major portion of the mandated circulation element. Existing and proposed public utilities and facilities are addressed in Section 5.3.4, Public Services and Facilities. Transportation and circulation are discussed in Section 4.3 of the Environmental Setting Technical Paper and Section 3.0 of the Community Development Issue Paper.

No major increases in traffic levels on roadways within Glenn County are expected. The growth in traffic generally will be in relationship to population growth, which countywide is forecast to be three percent per year. A functional classification system was developed to conform with forecast traffic levels during the planning period. For road sections on State highways, growth rates were used consistent with forecasts in Route Concept Reports prepared by Caltrans. For other road sections, growth rates were based on estimates of overall population growth and the distribution of this growth.

A separate five-level functional classification system has been established for areas within and outside urban areas, as follows: Principal Arterial, Minor Arterial, Major Collector, Minor Collector, and Local Street. These classifications are the same as those used in the Regional Transportation Plan. The functional classifications have been tied directly to forecast volume and the nature of trip generators served, such as the population of urban centers, recreational

centers, public facilities, industrial and commercial developments, intercounty connections, and transportation terminals.

Included on the Circulation Diagram are the projected interchanges on Interstate 5 within the county. The number and location of interchanges is not expected to change within the next 20 years.

Goal:

CDG-5 Development and maintenance of an efficient and effective road system.

Policies:

It shall be the policy of Glenn County to:

CDP-54 Support actions at the local level that ensure roadways are adequate to accommodate present and future traffic.

CDP-55 Encourage actions at the State level that support local needs for road improvements.

CDP-56 Establish a minimum level of service for local roadways.

CDP-57 Determine the impact proposed development will have on the local road system and ensure that the established level of service is maintained.

CDP-58 Require new development to pay its fair share for the improvement of roadways.

CDP-59 Establish and maintain a functional classification system that identifies the 20-year function and lane requirements for the County road system.

CDP-60 Limit access to Principal Arterial streets consistent with their primary function as carriers of through traffic.

CDP-61 Utilize a road improvement project priority system based on facility condition and usage characteristics.

Goal:

CDG-6 Provision of a safe transportation system.

Policies:

It shall be the policy of Glenn County to:

CDP-62 Support the improvement of all State and local roads to adopted design standards.

CDP-63 Support the implementation of improved safety measures for at-grade rail crossings.

Goal:

CDG-7 Provision of adequate financial resources to meet demonstrated transportation needs.

Policies:

It shall be the policy of Glenn County to:

- CDP-64 Utilize transportation funds from State and federal sources to address transportation needs.
- CDP-65 Support the development of voter-approved assessment districts to upgrade existing roads to adopted design standards where safety hazards are identified.

Goal:

CDG-8 Coordination of interagency transportation plans and programs.

Policies:

It shall be the policy of Glenn County to:

- CDP-66 Support the Social Services Transportation Advisory Council.
- CDP-67 Support the efforts of the Glenn County Transportation Commission to update the Regional Transportation Plan every 10 years and incorporate changes every two years.
- CDP-68 Coordinate development of major transportation corridors with adjacent counties.
- CDP-69 Coordinate development of County roads within urban limit lines with adjacent cities.
- CDP-70 Coordinate the development of transportation plans with private operators and transportation users.
- CDP-71 Support the involvement of the general public in all phases of transportation planning and programming.

Goal:

CDG-9 Transportation/circulation decision-making which supports economic development and adopted land use plans.

Policies:

It shall be the policy of Glenn County to:

- CDP-72 Support the rehabilitation and widening of Forest Highway 7 to two travel lanes west from Highway 162 into Mendocino County.
- CDP-73 Emphasize aviation-related uses at the two County airports (Willows Glenn County Airport and Orland Haigh Field Airport).

- CDP-74 Support the acquisition of air rights at the north end of the Orland-Haigh Field Airport, and support the acquisition of land for the clear zone at the south end of the Orland-Haigh Field Airport.
- CDP-75 All development within the vicinity of the Orland-Haigh Field Airport shall conform to the Orland Airport Comprehensive Land Use Plan, as adopted by the Glenn County Airport Land Use Commission.
- CDP-76 Support the acquisition of additional air rights at the north end of the Willows-Glenn County Airport, and support the acquisition of land for the clear zone at the south end of the Willows-Glenn County Airport.
- CDP-77 All development within the vicinity of the Willows-Glenn County Airport shall conform to the Willows Airport Comprehensive Land Use Plan, as adopted by the Glenn County Airport Land Use Commission.
- CDP-78 Support continued operation and expansion where feasible of existing private rail and bus transportation.
- CDP-79 Reserve for commercial/industrial development land with transportation advantages, including access to freeway interchanges and rail services, where consistent with other General Plan policies.
- CDP-80 Give consideration to farm-to-market transportation when prioritizing road improvements.
- CDP-81 Recognize that transportation and land use are closely linked and that transportation system decisions must be consistent with local land use planning and decision-making.

Goal:

CDG-10 Establishment of alternative transportation modes consistent with demand and available resources.

Policies:

It shall be the policy of Glenn County to:

- CDP-82 Serve as a focus for public transit planning and operations.
- CDP-83 Utilize cost-efficiency guidelines in making decisions about new or existing public transit services.
- CDP-84 Support improvements in specialized transportation services provided by public and private non-profit corporations, with adequate coordination among other providers.

- CDP-85 Support conducting a detailed feasibility study of fixed-route service between Orland and Chico as soon as possible, and between Orland and Willows within five years.
- CDP-86 Utilize a countywide bicycle plan that identifies long-range needs for routes and facilities to serve commuters and recreational riders.

Implementation Strategies, Programs and Priorities:

- CDI-25 Implement and maintain a pavement management system to protect the investment in existing roads.

Implements policies: CDP-54, CDP-62
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors

- CDI-26 Undertake necessary improvements to reduce the potential for flooding of existing arterials and collectors.

Implements policies: CDP-54, CDP-62, CDP-63
 Priority: 1, 2, and 3
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors

- CDI-27 Establish different road base standards for the northern and southern sections of the county which are reflective of differing soil conditions.

Implements policy: CDP-62
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

- CDI-28 Consider adoption of truck routes to minimize traffic impacts in the vicinity of urban development and reduce road maintenance costs.

Implements policies: CDP-54, CDP-62
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors

- CDI-29 Install appropriate traffic control devices as conditions warrant, including traffic signals and stop signs.

Implements policies: CDP-54, CDP-62
 Priority: 1, 2, and 3
 Lead Agency: Glenn County Public Works Department

Coordinating Agency: Glenn County Board of Supervisors

CDI-30 Install left-turn lanes where conditions warrant.

Implements policies: CDP-54, CDP-62
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-31 Monitor accident records to identify high-accident locations and to recommend appropriate mitigation measures.

Implements policies: CDP-54, CDP-62, CDP-63
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-32 Work with Caltrans to ensure a high level of maintenance for Interstate 5.

Implements policy: CDP-55
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-33 Implement level of service standards, as contained in this General Plan.

Implements policy: CDP-56
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors

CDI-34 Require appropriate traffic studies as a part of development project review and approval.

Implements policy: CDP-57
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-35 Establish developer impact fees and apply them to development permits.

Implements policy: CDP-58
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, Glenn County Planning Commission

- CDI-36 Adopt and utilize the functional classification system outlined in this General Plan.
- Implements policy: CDP-59
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-37 Implement driveway access standards as outlined in this General Plan.
- Implements policy: CDP-60
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Planning Department
- CDI-38 Develop a road improvement project priority system based on facility condition and usage characteristics.
- Implements policies: CDP-54, CDP-61, CDP-80, CDP-81
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-39 Obtain the County's fair share of formula and discretionary transportation funds from State and federal sources.
- Implements policy: CDP-64
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Caltrans
- CDI-40 Undertake studies to determine where use of road improvement assessment districts may be most feasible.
- Implements policy: CDP-65
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Planning Department
- CDI-41 Appoint a coordinator within the Public Works Department to ensure that other agency and public involvement is routinely sought prior to actions at the local level.

- Implements policies: CDP-66 through CDP-71
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Glenn County Public Works Department
- CDI-42 Request Caltrans and the U.S. Forest Service to participate in the upgrading of Forest Highway 7, as funds become available.
- Implements policies: CDP-55, CDP-72
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-43 Ensure that the County's economic development strategy and airport master plans emphasize aviation-related uses.
- Implements policies: CDP-49, CDP-73, CDP-74, CDP-75, CDP-76, CDP-77
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation
- CDI-44 Ensure that the County's economic development strategy provides a basis for continued operation and expansion of private rail and bus operations.
- Implements policy: CDP-78
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation
- CDI-45 Provide a high profile for public transit related activities in the County Public Works Department.
- Implements policy: CDP-82
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-46 Develop cost-efficiency guidelines for use when making decisions about new and existing public transit services.
- Implements policies: CDP-83, CDP-84
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Transportation Commission

CDI-47 Budget for and undertake a detailed feasibility study of fixed-route service between Orland and Chico, and between Orland and Willows.

Implements policy: CDP-84, CDP-85
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Transportation Commission

CDI-48 Undertake specific studies leading to a detailed countywide bicycle plan and adopt the study recommendations as a part of the General Plan when they are completed.

Implements policy: CDP-86
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Transportation Commission

5.3.3 Housing Element.

Background:

The purpose of the housing element of the general plan is to direct residential development consistent with the social and economic values of Glenn County, as well as with the State's goal of providing adequate housing to all residents of California. The thrust of this housing section is to comply with the housing requirements of both the State and the Tri-County Planning Council, as appropriate staff levels and funding resources become available to the County. The policy statements in this section promote the rehabilitation of the existing housing stock; encourage the increase of housing opportunities by reevaluating both governmental and non-governmental constraints; and directs the County to use appropriate State and federal financing and subsidy programs when available. It is envisioned that the diversity of housing types and opportunities will increase as growth and development occur in the county. By identifying local housing needs, adopting appropriate goals and policies, and providing local legislation and programs to meet these needs, the County may be more effective in addressing the housing needs of its residents. Housing is discussed in Section 4.4 of the Environmental Setting Technical Paper and Section 4.0 of the Community Development Issue Paper.

Government Code Section 65583 requires the housing element to include four basic components:

- A review of the previous housing element's goals, policies, programs and objectives to ascertain the effectiveness of each factor and the overall effectiveness of the element. This review is presented below.
- An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. This assessment can be found in the Environmental Setting Technical Paper (Section 4.4) and the Community Development Issue Paper (Section 4.0).

- A statement of the County's goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing. These policy statements are presented below. The quantified objectives are summarized in Table 5-3.
- A program which sets forth a five-year schedule of actions the County is taking or intends to undertake to implement the policies and achieve the goals and objectives through the administration of land use and development controls, provision of regulatory concessions, and the use of appropriate State and federal financing and subsidy programs when available. These programs are listed below. The year during which the programs will be implemented is indicated for each program, in addition to the priority, in accordance with the State Housing Element Guidelines.

State law requires that housing policy cover a specified time frame. While the remaining portions of the Glenn County General Plan cover the planning period 1992-2012, the housing element, by law, covers the period 1992-1997 and must be comprehensively updated in 1997.

The housing element requires an analysis of opportunities for energy conservation related to residential development. Goals, policies and implementation strategies for residential energy conservation can be found in Section 5.1.5 above, Mineral and Energy Resources.

Public Participation

A Citizens Advisory Committee was appointed by the Board of Supervisors to review and make recommendations regarding the General Plan, including the housing element. This Committee has 25 members, 5 from each supervisorial district representing various social and economic segments of the community. In addition to Committee input, public hearings will be held on the draft General Plan before the County Planning Commission and Board of Supervisors.

In addition to review and input from the Citizens Advisory Committee, prior to adoption, County Planning Department staff will review the housing goals, policies, objectives and programs with local housing interest groups throughout the county representing different social and economic interests, including low- and moderate- income households and special needs groups.

After completion of the draft General Plan, copies of the document will be distributed to the cities of Willows and Orland, the surrounding counties, and all school districts and special districts in Glenn County. Copies of the draft Plan will also be provided for placement in Glenn County libraries.

Evaluation of the Previous Housing Element

As required by Section 65588 of the Government Code, Glenn County has reviewed its 1989 Housing Element and has evaluated the appropriateness of its housing goals, objectives, and policies in contributing to the attainment of the State housing goal, the effectiveness of the Housing Element in attainment of the County's housing goals and objectives, and the progress of the County in implementation of the Housing Element. The General Plan has been updated to reflect the results of this review.

By definition, a goal is an "...ideal future end, condition or state related to the public health, safety or general welfare toward which planning and planning implementation measures are

directed...a goal is generally not quantifiable, time-dependent or suggestive of specific actions for its achievement" (State of California General Plan Guidelines, 1990). Thus, it is unlikely that Glenn County can expect to completely achieve the goals set forth in the 1989 Housing Element. Nevertheless, the County has made progress toward its goals, as described in this section and below in the review of the 1989 Housing Element programs. The goals, which are consistent with State and national housing goals to provide a decent home and suitable living environment for every individual and family, have generally been incorporated into this General Plan revision due to their continuing worthiness as an expression of community values.

The General Plan Guidelines define a policy as a specific statement that guides decision making and indicates a clear commitment of the local legislative body, the Board of Supervisors. A review of the policies contained in the 1989 Housing Element indicates that the County intends to support and uphold some of the policies, rewritten to conform to the revised General Plan format, along with newly drafted policies.

An objective is defined as a "...specific end condition or state that is an intermediate step toward attaining a goal." With regard to housing, objectives must be quantified, that is, measurable and/or time-specific. The 1989 Housing Element included a quantified objective for a new construction need for low to moderate income groups by 1995 of 220 dwelling units. Information from the County regarding achievement of those objectives is presented below.

Previous Housing Element Programs.

The results of the programs contained in the County's 1989 Housing Element are summarized and reviewed below on a program-by-program basis.

- 1.(a) Glenn County shall cooperate with Federal and State agencies on programs designed to provide housing assistance and improve availability of housing units to all economic segments of the community.

The Community Housing Improvement Program (CHIP) rehabilitated sixteen (16) houses in Willows in 1990. The Community Housing Improvement Program constructed forty (40) self-help houses in Willows in 1990. The Community Housing Improvement Program will construct forty-seven (47) self-help houses in Orland in 1992.

- 1.(b) Glenn County shall allow manufactured housing and mobile homes to play an integral part in meeting present and future housing needs.

In 1991, there were 67 single family homes constructed in the unincorporated area of Glenn County. Twelve (12) were mobile homes on foundations and nine (9) were mobile homes. This means that thirty-one percent of the new single family homes were manufactured housing.

The County has adopted Minimum Residential Construction Standards.

- 2.(a) Glenn County shall cooperate with Federal and State agencies on programs designed to provide housing assistance to qualified persons within the community.

The Glenn County Community Services Department provides housing assistance through the following programs:

Section 8 Rental Assistance: 65 housing units per year are assisted.

Rent Eviction Prevention Program: From October 1991 through March 1992 eleven (11) households were assisted (35 persons).

First Month's Rent Program:

1990: Eleven (11) households (37 people)

1991: Fifteen (15) households (41 people)

1992: Ten (10) households (30 people)

- 3.(a) Glenn County shall periodically review its General Plan so as to amend it in the interest of providing the opportunities for planned, orderly development to continue and to meet present and future project housing needs.

The County is in the process of revising the General Plan.

- 3.(b) Glenn County shall accommodate manufactured and mobile homes within the general community and maintain and review current design standards to assure compatibility within residential and rural areas.

The Minimum Residential Construction Standards were most recently amended in October 1991.

- 3.(c) Glenn County shall allow development of planned mobile home parks in the interest of increasing housing availability through adoption and implementation of Planned Unit Developments to provide for greater flexibility in the design of developments than is otherwise possible through the strict application of zoning regulations.

There have been no new mobile home parks constructed in Glenn County; however, several existing mobile home parks have expanded the number of spaces available. The Homer Sears Mobile Home Park north of Willows added one (1) space. The Ideal Mobile Home Park in Hamilton City added five (5) spaces. The Orland Country Estates Mobile Home Park west of Orland added twenty (20) spaces.

Glenn County also allows the construction of a second dwelling: units constructed 1989-1992 unit on most parcels in the county. The following numbers of second dwelling units have been constructed:

1989: Fourteen (14) residences

1990: Twenty-six (26) residences

1991: Fifteen (15) residences

1992: Ten (10) residences

- 4.(a) Glenn County shall cooperate with Federal and State agencies on programs designed to provide needed housing rehabilitation to qualified individuals and families.

The Glenn County Community Services Department has provided rehabilitation and weatherization assistance: number of dwellings 1989-1992 for the following housing units in the unincorporated area of Glenn County:

1989

Artois	7 units weatherized	
Elk Creek	13 units weatherized	
Glenn	3 units weatherized	
Hamilton City	14 units weatherized	
Orland area	59 units weatherized	
Princeton area	2 units weatherized	
NE Willows	21 units weatherized	10 units rehabilitated

1990

Artois	6 units weatherized	
Elk Creek	3 units weatherized	
Glenn	8 units weatherized	
Hamilton City	12 units weatherized	
Orland area	79 units weatherized	
Princeton area	2 units weatherized	
NE Willows	12 units weatherized	6 units rehabilitated

1991

Artois	0 units weatherized
Elk Creek	1 unit weatherized
Glenn	2 units weatherized
Hamilton City	6 units weatherized
Orland area	22 units weatherized
Princeton area	1 unit weatherized
NE Willow	9 units weatherized

1992

Artois	0 units weatherized
Elk Creek	0 units weatherized
Glenn	1 unit weatherized
Hamilton City	2 units weatherized
Orland area	11 units weatherized
Princeton area	0 units weatherized
NE Willows	4 units weatherized

(Glenn County Community Services Department, Martha Young, (916)934-6510).

- 4.(a) Glenn County shall apply for rental and new construction assistance where appropriate to local needs and contingent upon the determination that a reasonable probability of success in securing funds can be assured.

The Community Housing Improvement Program is in the process of developing twelve (12) units of rental housing in Hamilton City.

- 5.(a) Glenn County shall examine the following types of administrative measures and to implement them if necessary and desirable: inclusionary zoning, expedited processing, density bonus and selective waiving of development fees.

Glenn County has adopted an Ordinance and Resolution allowing Seasonal Farmworker Housing to be constructed without a Conditional Use Permit if certain conditions are met.

How the Updated General Plan Incorporates What Has Been Learned from the Previous Element

Several observations and conclusions can be drawn based on experience gained by the County in implementing the previous Housing Element. First, it is reasonable to conclude that the County has accomplished more in the quest for decent, affordable housing than if there had not been an adopted Housing Element during the planning period, simply by focusing attention on this issue. The evaluation of previous Housing Element programs above indicates that the County has demonstrated a reasonable success rate in implementing these programs, given the County's limited resources, and that no corrective actions are necessary. Secondly, it is fair to say that outside forces, both governmental and nongovernmental, play a large role in the County's relative success or failure at Housing Element implementation. This conclusion is particularly valid with regard to interest rates, availability of financing, the private real estate market, and the commitment of State and federal funds to housing programs. Finally, it can also be concluded that, at the end of this planning period, the Glenn County region remains one of the most affordable areas in the State for housing.

Regional Housing Needs Plan

The Tri-County Planning Council prepared the Regional Housing Needs Plan for Colusa, Glenn and Tehama counties pursuant to the provisions of Section 65584 of the Government Code. The Plan contains each county's and city's share of the statewide housing need to July 1997 and allocates shares of that need in each county to the jurisdictions in that county.

The determinations of local share of regional housing need shown in Table 5-1 and 5-2 contain determinations of local share of regional need for the period January 1, 1991 to July 1, 1997. Table 5-1 contains the estimated number of households on January 1, 1991 by income group, the projected additional households by income group between January 1, 1991 and July 1, 1997, and the projected households by income group on July 1, 1997. Table 5-2 contains basic construction needs by income group through July 1997. It also shows the components which comprise the total. These include the existing shortage or surplus of units at the beginning of the planning period, the household growth allocations for the planning period, the number of vacant units needed because of household growth, and the estimated number of normal market removals during the planning period.

Existing need is shown in both Tables 5-1 and 5-2. In Table 5-1, the "January 1, 1991" column shows the number of households, by income, that needed adequate housing as of the base date of the Plan. In Table 5-2, the "1991 vacancy" needs figures mean that there was a shortage of units as of January 1, 1991. Tables 5-1 and 5-2 also both contain determinations of projected need.

Table 5-1 shows, by income group, the number of additional households each local government is to plan for in its housing element. Table 5-2 shows the new construction needed to accommodate, by income group, the additional households by July 1997, including an allowance for normal market removals.

The purpose and principal use of the allocations in this Plan is inclusion in local housing elements as the respective share of regional housing need. By doing so, the County is planning to accommodate its share of projected county growth and to provide opportunities for all income groups to have access to housing throughout the county.

Goal:

CDG-11 Development, through public and private resources, of sufficient new housing to ensure the availability of safe, affordable housing for all households in the Glenn County unincorporated area.

Policies:

It shall be the policy of Glenn County to:

CDP-87 Advocate and support proposed State and federal actions that will create a positive, stable climate for housing production.

CDP-88 Wherever appropriate, facilitate the use of federal or State programs that can assist in development of new housing consistent with identified countywide housing needs and adopted local plans and programs.

CDP-89 Support efforts which coordinate and improve the ability of the housing delivery system to effectively respond to local housing needs.

CDP-90 Encourage and participate in efforts to achieve economies and efficiencies which will facilitate the production of quality affordable housing.

CDP-91 Promote balanced, orderly growth to minimize unnecessary development costs which add to the cost of housing.

Table 5-1

**HOUSEHOLD PROJECTIONS BY INCOME GROUP
JANUARY 1, 1991 TO JULY 1, 1997**

Jurisdiction & Income Group	Jan. 1, 1991		July 1, 1997		Jan. 1991 to July 1997	
	No.	%	No.	%	No.	%
GLENN COUNTY						
Orland						
Very Low	504	26.0	580	26.0	76	26.0
Other Lower	349	18.0	401	18.0	52	17.8
Moderate	426	22.0	490	22.0	64	21.9

Above Moderate	658	34.0	758	34.0	100	34.3
Total	1,937	100.0	2,229	100.0	292	100.0
Willows						
Very Low	492	23.0	552	23.0	60	23.0
Other Lower	363	17.0	408	17.0	45	17.2
Moderate	428	20.0	480	20.0	52	19.9
Above Moderate	855	40.0	959	40.0	104	39.9
Total	2,138	100.0	2,399	100.0	261	100.0
Unincorporated						
Very Low	1,050	21.8	1,145	21.7	95	21.0
Other Lower	800	16.6	874	16.6	74	16.4
Moderate	1,014	21.0	1,109	21.0	95	21.0
Above Moderate	1,956	40.6	2,144	40.7	188	41.6
Total	4,820	100.0	5,272	100.0	452	100.0
Glenn County Total						
Very Low	2,046	23.0	2,277	23.0	231	23.0
Other Lower	1,512	17.0	1,683	17.0	171	17.0
Moderate	1,868	21.0	2,079	21.0	211	21.0
Above Moderate	3,469	39.0	3,861	39.0	392	39.0
Total	8,895	100.0	9,900	100.0	1,005	100.0

Source: Tri-County Planning Council, Regional Housing Needs Plan, 1992.

Table 5-2

**GLENN COUNTY
BASIC CONSTRUCTION NEEDS
JANUARY 1, 1991 TO JULY 1, 1997**

	Housing Units			
BY COMPONENTS	Orland	Willows	Unincorporated	County Total
Household Increase	292	261	452	1,005
1991 Vacancy Need	51	43	101	195
1997 Vacancy Need	20	18	38	76
Replacement Need 1990-1997	33	31	70	134
Total	396	353	661	1,410
BY INCOME GROUP	Orland	Willows	Unincorporated	County Total
Very Low	103	81	139	323
Other Lower	70	61	108	239
Moderate	87	70	139	296
Above Moderate	136	141	275	552
Total	396	353	661	1,410

Source: Tri-County Planning Council, Regional Housing Needs Plan, 1992.

Quantified Objective:

CDO-1 Construction of 661 dwellings by 1997 (to include 139 dwellings for very-low income category, 108 dwellings for low-income category, 139 dwellings for

moderate income category and 275 dwellings for above-moderate income category); which equals Glenn County's regional share.

Goal:

CDG-12 Assurance of choice of housing location for all residents of the Glenn County unincorporated area.

Policies:

It shall be the policy of Glenn County to:

CDP-92 Accommodate and encourage development of a full range of housing types in the unincorporated communities of Glenn County.

CDP-93 Maintain a sufficient inventory of developable land to accommodate timely development of needed new housing.

CDP-94 Direct new housing development to areas within urban limit lines where essential public facilities can be provided and where appropriate employment, commercial, and educational services are available.

Quantified Objective:

CDO-2 Designation of sufficient land for residential development to accommodate the land required for new development through 1997.

Goal:

CDG-13 Maintenance and improvement of the quality of the existing housing stock and the neighborhoods in which it is located.

Policies:

It shall be the policy of Glenn County to:

CDP-95 Facilitate the removal of all unsafe, substandard dwellings which cannot be cost-effectively repaired.

CDP-96 Encourage development of sound new housing on vacant land within existing neighborhoods which have the necessary infrastructure and services.

CDP-97 Support and encourage all public and private efforts to rehabilitate and improve the existing housing stock, with a special focus on the communities of Artois, North East Willows, Elk Creek, and Butte City.

CDP-98 Promote public awareness of the need for housing and neighborhood conservation.

CDP-99 Support actions which foster and maintain high levels of owner-occupancy, particularly in those neighborhoods where housing quality is declining.

- CDP-100 Promote development of public policies and regulations which provide incentives for proper maintenance of owner-occupied and rental housing.
- CDP-101 Manage development of land within and adjacent to existing neighborhoods to avoid potentially adverse impacts on the living environment.
- CDP-102 Encourage proper maintenance of essential public services and facilities in residential developments.
- CDP-103 Encourage use of available public and private housing rehabilitation assistance programs in neighborhoods where such action is needed to ensure preservation of the living environment, with a special focus on the communities of Artois, North East Willows, Elk Creek, and Butte City.
- CDP-104 Facilitate maximum use of federal and State programs which can assist very-low and lower-income homeowners to properly maintain their dwelling units.

Quantified Objectives:

- CDO-3 Rehabilitation of 68 dwellings through 1997 (to include 14 dwellings for very-low income category, 11 dwellings for low-income category, 14 dwellings for moderate-income category and 29 dwellings for above-moderate income category).
- CDO-4 Conservation of existing dwellings through 1997 through objectives established in CDO-6 and CDO-7.

Goal:

- CDG-14 Promote equal access to safe and decent housing for all income groups.

Policies:

It shall be the policy of Glenn County to:

- CDP-105 Encourage enforcement of fair housing laws throughout the county.
- CDP-106 Support programs which increase employment and economic opportunities.
- CDP-107 Encourage development of a range of housing types for all income levels in proximity to existing and planned employment centers.

Quantified Objective:

- CDO-5 Provide referral services to housing discrimination complaints to appropriate State and federal agencies through 1997.

Goal:

- CDG-15 Promote energy conservation activities in all residential areas.

Policies:

All policies, implementation standards and programs contained in the Glenn County Energy Element are incorporated herein by reference.

Goal:

CDG-16 Increase opportunities for special needs groups (elderly, large families, families with female heads of household, farm workers, disabled and homeless) to obtain adequate housing.

Policies:

It shall be the policy of Glenn County to:

CDP-108 Encourage full use of federal and State housing assistance programs which can enable those persons with unmet housing needs to obtain decent housing at prices they can afford.

CDP-109 Support the development of housing plans and programs, including new publicly-subsidized housing, which maximize housing choice for special needs groups and lower-income households commensurate with need.

CDP-110 To the extent possible, implement adopted land development and resource management policies without imposing regulations that have the effect of excluding housing for special needs groups and lower-income households.

Quantified Objectives:

CDO-6 Rental assistance to an annual average of 100 households through 1997 (to include 36 very-low income category households, 28 low-income category households and 36 moderate-income category households).

CDO-7 Homeowner assistance to an annual average of 55 households through 1997 (to include 20 very-low income category households, 15 low-income category households, and 20 moderate-income category households).

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

CDI-49 Prepare a five-year land use plan update which will set aside sufficient land area within urban limit lines to meet future residential needs through 1997, and to allow sufficient land choice and inhibit inflated land values due to potential monopoly of growth areas.

Implements policy: CDP-93
Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-50 Include in this General Plan and the accompanying Capital Improvements Program and Impact Mitigation Fee Program the identification of infrastructure and service limitations which inhibit housing development and identify programs and resources to address short-term and long-term needs.

Implements policies: CDP-94, CDP-96, CDP-102
Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-51 Amend the Glenn County Zoning Code to allow emergency shelters and transitional housing as conditional uses in zones applied to sites designated for residential, commercial and public uses. The standardized conditions under which emergency shelters and transitional housing will be approved include the following:

- The site is located within reasonable access to public agencies and transportation services
- Public services and facilities are available to the site
- Uniform Housing Code standards for space requirements are met
- Reduced parking standards will apply

Implements policies: CDP-92, CDP-108, CDP-109
Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-52 Develop and maintain an inventory of publicly-owned land within the unincorporated area and analyze that land for potential housing sites. If appropriate sites are identified, the County will approach developers and funding agencies to facilitate development of the sites with assisted housing.

Implements policy: CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Planning Department
Funding Source: General fund, CDBG Technical Assistance grant

CDI-53 Investigate formation of a Redevelopment Agency and adoption of redevelopment plans for blighted areas of unincorporated communities which will address their critical housing needs.

Implements policies: CDP-88, CDP-89, CDP-96, CDP-97, CDP-99, CDP-101, CDP-103, CDP-108
 Priority: 2
 Lead Agency: Glenn County Planning Department
 Year: 1994-1997
 Coordinating Agencies: Glenn County Community Services Department; Glenn County Redevelopment Agency, County Board of Supervisors, Glenn County Planning Commission, County Counsel
 Funding Source: Redevelopment funds

CDI-54 Allocate a portion of any future redevelopment housing set-aside funds for the purchase of sites for low- and moderate-income housing, to be landbanked or used for the development of assisted housing.

Implements policies: CDP-88, CDP-92, CDP-96, CDP-108, CDP-109
 Priority/Year: Upon adoption of redevelopment plans
 Lead Agency: Glenn County Redevelopment Agency
 Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
 Funding Source: Redevelopment funds

CDI-55 Utilize the Redevelopment Agency, if established, to identify suitable sites for assisted housing, and assist in providing for the development of infrastructure improvements to serve those sites.

Implements policies: CDP-93, CDP-94, CDP-96, CDP-102
 Priority/Year: Upon establishment of Redevelopment Agency
 Lead Agency: Glenn County Redevelopment Agency
 Funding Source: Redevelopment funds

CDI-56 Review County policies related to housing conservation and adopt new policies and procedures as necessary. This will include, but not be limited to, apartment and mobile home park conversions, rental housing, etc.

Implements policies: CDP-99, CDP-100
 Priority: 1
 Year: 1993 and ongoing
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Community Services Department, Glenn County Board of Supervisors
 Funding Source: General fund

CDI-57 Work with and assist those developers who are willing to provide low and moderate-income housing by taking all necessary and proper actions to expedite processing and approvals for such projects, such as prompt completion of staff reports and scheduling of hearings, providing needed information, and assistance

with the application process for State and/or federal housing assistance programs. Through communication and correspondence with legislators, support State and federal actions that create a positive, stable climate for housing production.

Implements policies: CDP-87, CDP-88, CDP-89, CDP-92, CDP-96
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Redevelopment Agency, Glenn County Community Services Department
Funding Source: General fund, redevelopment funds

CDI-58 Support the continued implementation of the Section 8 Existing rent subsidy program, which provides rent subsidies directly to participants' landlords, and support attempts to secure additional funding for expanded programs.

Implements policy: CDP-108
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: General fund

CDI-59 Encourage nonprofit sponsors to make application for HUD Section 202 allocations for construction of rental housing for senior citizens and the handicapped by assisting sponsors in locating appropriate sites, and considering the use of CDBG funds, redevelopment funds, and/or other available resources to either write down the cost of the site or fund infrastructure improvements. Take all actions necessary and proper to expedite processing and approval of such projects.

Implements policies: CDP-92, CDP-96, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, nonprofit sponsors
Funding Source: CDBG funds, redevelopment funds

CDI-60 Implement the density bonus requirements in State law. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25 percent, and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

- 20% of the units for lower-income households; or
- 10% of the units for very low-income households; or
- 50% of the units for senior citizens.

Implements policies: CDP-89, CDP-92, CDP-96, CDP-110

Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-61 Continue to investigate ways to encourage urban infill. Current development policies are analyzed in this General Plan update and programs are formulated for providing incentives such as permitting higher densities under certain conditions, permitting mixed uses in certain locations, expediting processing of site plans, redevelopment, etc.

Implements policies: CDP-91, CDP-92, CDP-94, CDP-96, CDP-101, CDP-102
Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-62 Designate the Glenn County Community Services Department as the local referral agency to direct residents with discrimination complaints to the State Department of Fair Employment and Housing. Publicize this service through the local media, schools, libraries, the post office, and local housing advocacy groups.

Implements policy: CDP-105
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Planning Department
Funding Source: General fund

CDI-63 Apply for Community Development Block Grant (CDBG) funds for housing rehabilitation in target areas in the communities of Artois, North East Willows, Elk Creek and Butte City. These efforts will be closely coordinated with the County's representative at the State Department of Housing and Community Development. Include room additions for severely overcrowded owner households in the housing rehabilitation program.

Implements policies: CDP-97, CDP-102, CDP-103, CDP-104, CDP-108
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
Funding Source: General fund

CDI-64 Apply for housing rehabilitation funds and assist property owners in applying for funds through the California Housing Rehabilitation Program Rental Component (CHRP-R), the State Rental Rehabilitation Program (SRRP), and the California Energy Conservation Rehabilitation Program (CECRP).

Implements policies: CDP-97, CDP-103, CDP-104, CDP-108
Priority: 1
Year: 1995
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: General fund

CDI-65 Encourage developers to make application for Farmers Home Administration (FmHA) 502 Interest Subsidy programs and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-88, CDP-92, CDP-96, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-66 Encourage developers to make application for FmHA 515 loans to subsidize the construction of rental housing for low- and moderate-income families and elderly persons, and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals of such projects.

Implements policies: CDP-88, CDP-92, CDP-96, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-67 Make application to the State of California to fund housing under the HCD Farm Worker Housing Grant Program (FWHG) for low-income agricultural: farm housing; worker renters and owners and the Office of Migrant Services (OMS) grant for temporary housing and support services to migrant families.

Implements policies: CDP-88, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors

Funding Source: State Department of Housing and Community Development

CDI-68 Encourage developers to make application for the Rental Housing Construction Program (RHCP) which provides low interest, deferred payment loans for new construction of rental units affordable to low-income households. Work with and assist those developers, and take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-88, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
Funding Source: California Housing Finance Agency

CDI-69 Make application, or encourage nonprofit sponsors to make application, for FmHA 514/516 allocations for rentals which provide a combination of grants and loans to finance the construction of Migrant Farm Worker Rental Housing.

Implements policies: CDP-88, CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-70 Construct or work with special districts to assure the construction of necessary infrastructure to allow for construction of all housing types, including higher-density multi-family housing. Assistance to special districts shall include provision for needed capital projects in the County's Capital Improvements Plan, provision of technical assistance with applications for State and/or federal funding, and assistance with required fee studies for implementation of mitigation fees for capital facilities.

Implements policies: CDP-89, CDP-91, CDP-94, CDP-102
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: Special assessments, user fees, redevelopment funds, CDBG funds

CDI-71 Maintain and monitor a current inventory of all substandard housing units.

Implements policy: CDP-95
Priority: 1

Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Planning Department
Funding Source: Building permit fees

CDI-72 Continue to review innovations and cost-saving materials and techniques that will provide the same quality construction at a lower cost to the consumer. Provide annual progress reports to the local chapter of the Building Industry Association and make them available to the public at the Building Department counter.

Implements policies: CDP-89, CDP-90, CDP-110
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Planning Department
Funding Source: Building permit fees

CDI-73 Continue to require the first floors of multi-family developments to accommodate access and use by the elderly and handicapped.

Implements policy: CDP-92
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Planning Department
Funding Source: Building permit fees

CDI-74 Continue to analyze setback requirements, lot design criteria, review procedures, parking requirements, and road standards and modify each of these where feasible to reduce development costs.

Implements policy: CDP-110
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-75 Inspect housing upon receiving complaints regarding health and safety problems, and require compliance with applicable codes.

Implements policies: CDP-95, CDP-98, CDP-99, CDP-100
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Health Department
Funding Source: Fees, fines

- CDI-76 Require demolition of vacant dilapidated dwellings which are not economically feasible to improve to code standards.
- Implements policy: CDP-95
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: Fees, fines, CDBG funds
- CDI-77 Continue to work with the Community Housing Improvement Program (CHIP), or other nonprofit corporations that provide similar services, to provide housing opportunities for low- and moderate-income households by assisting CHIP in locating suitable sites and making redevelopment housing set-aside funds available at low interest rates to finance housing construction and/or rehabilitation.
- Implements policies: CDP-88, CDP-89, CDP-97, CDP-98, CDP-103, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: General fund, redevelopment funds
- CDI-78 Support economic development programs and strategies set forth in Section 5.3.5.
- Implements policies: CDP-106, CDP-107
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development Inc., Tri-County EDC, Cities of Willows and Orland
Funding Source: General fund, State and federal grants
- CDI-79 Provide incentives to developers for development of multifamily units with three or more bedrooms.
- Implements policies: CDP-108, CDP-109
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Planning Commission, Glenn County Board of Supervisors

Table 5-3

SUMMARY OF QUANTIFIED OBJECTIVES

Income Category	Construction (CDO-1)	Rehabilitation (CDO-3)	Conservation (CDO-6,7)	
			Renter	Owner
Very-Low	139	14	36	20
Low-Income	108	11	28	15
Moderate	139	14	36	20
Above Moderate	275	29	N/A	N/A
Total	661	68	100	55

5.3.4 Public Services and Facilities: Goals and Policies.

Background:

The provision of public services and facilities is directly tied to land use and growth, circulation, housing, and economic development. Section 65302(b) of the Government Code requires the circulation element to address existing and proposed public utilities and facilities. Because the location and distribution of new public facilities is dependent on established land use patterns, the issue of public services and facilities should be correlated with the land use element. Public services and facilities are discussed in Section 4.5 of the Environmental Setting Technical Paper and Section 5.0 of the Community Development Issue Paper.

There are a multitude of public service providers in Glenn County, including community services districts, irrigation districts, public utility districts, fire districts, school districts, and other special districts. These districts are self-governing and are not subject to County control. The County must coordinate its plans for growth and development with these districts in order to ensure that services can be provided on a timely basis to areas planned for development, including areas within urban limit lines.

The availability of adequate public services is critical to the County's economic development effort, and is touched upon in Section 5.3.5, Economic Development, as well as in this section. In addition to the implementation measures and priorities established in this section, the Capital Improvements Plan prepared for this General Plan addresses needed capital facilities, financing methods, and project priorities.

As part of the General Plan, level of service standards have been established for public services. It is intended that these standards be used to evaluate the impact of development on the various services and to evaluate distribution and expansion needs.

Goal:

CDG-17 Provision of adequate and cost-effective public services.

Policies:

It shall be the policy of Glenn County to:

- CDP-111 Establish level of service standards for public services which can be used to evaluate the impact of development on the various services, and to evaluate service distribution and expansion needs.
- CDP-112 Utilize urban limit lines as an official definition of the interface between future urban and agricultural: urban limits uses, and to identify the areas set aside for those types of uses which benefit from urban services.
- CDP-113 Require new development within urban limit lines to connect to sewer and water services when available, and discourage installation of septic tanks in urban areas. When sewer and water services are not immediately available, commitments to serve in the future shall be obtained from service providers prior to development approval.
- CDP-114 Encourage new urban development to occur within urban limit lines as an extension of existing urbanized areas, in order to provide necessary services in the most efficient manner.
- CDP-115 Discourage the extension of public facilities which would generate growth in areas inconsistent with the policies of this General Plan.
- CDP-116 Coordinate with the cities of Orland and Willows to develop policies and standards relating to building construction, public utility connections, sewer and water service, and other matters related to cost-effective development of unincorporated areas within urban limit lines.
- CDP-117 Require improvements for development within urban limit lines to be constructed to full County standard, including public roads.
- CDP-118 Encourage the expansion of private and special district utility systems consistent with the adopted General Plan.
- CDP-119 Encourage vacant or undeveloped land within the existing urban areas and presently served by public services to develop first.
- CDP-120 Encourage the coordination of service efforts of the special districts.
- CDP-121 Encourage LAFCO to amend Spheres of Influence for cities and special districts to be coterminous with County-adopted urban limit lines.
- CDP-122 Require new parcels created under the parcel map procedure within urban limit lines to meet County public road standards.
- CDP-123 Restrict growth in foothill and mountain communities to densities which may be supported by existing services until adequate services can be provided.
- CDP-124 Determine whether special districts are capable of meeting their service commitments; in the event they are not, consider formation of County Service

Areas, other special districts or assessment districts, to deliver services as needed within urban limit lines.

- CDP-125 Undertake the siting of new wastewater treatment facilities as a coordinated effort between the County, cities and special districts.
- CDP-126 Within the communities of Willows, Orland and Hamilton City, collect and treat all wastewater at a single facility within each community.
- CDP-127 Place a high priority on the extension of sewer service to West Orland and to the South Orland area in the interest of protecting public health and safety and a valuable groundwater recharge area.
- CDP-128 Maintain and periodically review minimum parcel standards for lots created without public or community water service.
- CDP-129 Maintain coordination and cooperation between the County and water purveyors, and encourage special districts to comply with State law by referring capital projects to the County for review and evaluation for consistency with the General Plan.
- CDP-130 Site future fire and police stations to enable minimum acceptable response times to service calls.

Goal:

CDG-18 Adequate financing for existing and planned service delivery systems.

Policies:

It shall be the policy of Glenn County to:

- CDP-131 Require new planned communities to demonstrate that public services and facilities can be fully funded through private and/or public sources and that adequate provision has been made for long-term maintenance of facilities.
- CDP-132 Develop programs to assist with infrastructure financing when such assistance is determined to be in the best interest of the County, using a mix of techniques.
- CDP-133 Evaluate use of the redevelopment process to correct infrastructure and other deficiencies within blighted areas of unincorporated communities.
- CDP-134 Consider the impacts of growth and development on general County government services when developing cost recovery plans and considering new development proposals.
- CDP-135 Utilize County Service Areas when new service delivery agencies are required, to retain control and avoid a proliferation of small special purpose governmental units.

Consider establishment of a countywide County Service Area which can provide a variety of public services.

CDP-136 Consider supplemental school mitigation fees for those instances where supplemental fees are necessary to meet the facility funding needs of a school district and where other methods of school financing are not adequate. "Supplemental school mitigation fees" shall mean payments made to a school district by a developer of a residential, commercial or industrial project to mitigate the impact on school facilities caused by the project, in addition to fees imposed pursuant to Government Code Section 65995.

CDP-137 Grant a discretionary land use approval which is necessary for residential, commercial or industrial development only if the school district or districts within whose boundaries the development is planned first certifies to the Board of Supervisors that:

- The subject development will not significantly impact school facilities,
- The developer has paid in full the supplemental school mitigation fees corresponding to the development, or
- That the developer has arranged and agreed to mitigate the impact on school facilities in some other manner satisfactory to the district, consistent with the district's financing plan.

As used in this policy, "discretionary land use approval" means a zoning change, general plan amendment, any other legislative action, and certification or approval of a negative declaration (ND) or an environmental impact report (EIR) pursuant to the California Environmental Quality Act (CEQA).

This policy shall apply only if the affected school district has:

- Adopted a facilities plan;
- Adopted a school financing plan describing the sources and amounts of funds required to fully implement the facilities plan;
- Completed a valid study justifying the amount of the supplemental school mitigation fees.

CDP-138 Ensure that supplemental school mitigation fees as established by the affected school district are in an amount which does not exceed the amount necessary, when added to other reasonably assured sources of funding identified in the school facilities financing plan, to fully implement the adopted school facilities plan.

CDP-139 Establish sufficiently high densities in newly developing areas so as to make feasible centralized collection and treatment of wastewater, and limit the number of planned new communities to assure that there are adequate concentrations of population to support operation and maintenance of facilities.

CDP-140 Establish mechanisms for funding park acquisition and development, as well as ongoing costs of park maintenance and recreation services.

CDP-141 Recognize the importance of and support the continued operation of the Glenn County Hospital.

Implementation Strategies, Programs and Priorities:

CDI-80 Amend the Glenn County Subdivision Ordinance and Glenn County Zoning Code to conform to the standards for connection to sewer and water systems set forth in this General Plan, and to prohibit installation of new individual septic tanks and wells when community service is available.

Implements policy: CDP-113
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-81 Prior to approval of subdivisions, parcel maps and conditional use permits, applicants shall be required to obtain commitments to serve new development within urban limit lines from service providers when services are not immediately available.

Implements policy: CDP-113
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Special Districts, City of Orland, City of Willows

CDI-82 Formally request LAFCO to amend special district and City Spheres of Influence to be coterminous with County-adopted urban limit lines and refer proposed district annexations to the County for review and comment.

Implements policies: CDP-115, CDP-118, CDP-121
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

CDI-83 Convene a task force composed of representatives of Glenn County and the cities of Willows and Orland to formulate a memorandum of understanding which establishes uniform policies and standards for building construction, public utility connections, sewer and water service, and other matters related to cost-effective development of unincorporated areas within city urban limit lines.

Implements policy: CDP-116
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Building Department, City of Orland, City of Willows

- CDI-84 Amend the Glenn County Subdivision Ordinance and Glenn County Zoning Code to require improvements for development within urban limit lines for Orland and Willows to be constructed to full city standard, including public roads.
- Implements policies: CDP-117, CDP-122
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Public Works Department
- CDI-85 Provide private and special district utility systems with copies of the General Plan and refer all proposed General Plan amendments and development proposals to affected systems and districts for review and comment.
- Implements policy: CDP-118
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Special districts, other system operators
- CDI-86 Formally request all private and special district utility systems to refer planned capital projects to the County for review and evaluation for consistency with the General Plan.
- Implements policies: CDP-118, CDP-129
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, special districts, other system operators
- CDI-87 Direct development in the foothill and mountain regions to the Elk Creek area.
- Implements policy: CDP-123, NRP-1, NRP-16
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-88 Request LAFCO to initiate and undertake studies of existing special districts and cities which include inventorying those agencies and determining their maximum service area and service capacities.
- Implements policies: CDP-111, CDP-118, CDP-120, CDP-124
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

- CDI-89 Request LAFCO to adopt standards and procedures for the evaluation of service plans submitted by cities and special districts with annexation/reorganization applications.
- Implements policies: CDP-111, CDP-113, CDP-118, CDP-120, CDP-124
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors
- CDI-90 Request LAFCO to study and make recommendations regarding the consolidation, formation, and/or dissolution of special districts, as appropriate to meet service needs within urban limit lines/Spheres of Influence.
- Implements policy: CDP-124
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors
- CDI-91 Initiate a study of the formation of County Service Areas and assessment districts to deliver services as needed.
- Implements policy: CDP-124, CDP-132, CDP-135
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
- CDI-92 Enter into joint powers agreement(s) with the cities of Willows and Orland and appropriate special districts to coordinate the siting of new wastewater treatment facilities, and to limit treatment facilities to a single facility within each community.
- Implements policies: CDP-125, CDP-126
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: City of Orland, City of Willows, Glenn County Board of Supervisors, special districts
- CDI-93 Designate the extension of sewer service to West Orland and the South Orland area as a priority item in the County's capital improvements program.
- Implements policy: CDP-127
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors, Glenn County Planning Department

- CDI-94 Request the Environmental Health Department to review minimum parcel size standards for areas without public or community water service for adequacy as new information becomes available e.g. soil surveys, new regulations.
- Implements policy: CDP-128
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors
- CDI-95 Amend the Glenn County Zoning Code and Subdivision Ordinance to require that applications for new communities, specific plans, planned developments, and other large-scale projects include a fiscal impact analysis (including impacts on general County government services) and a plan for providing services, including provision for full funding and long-term maintenance of facilities, and demonstrating that there are adequate concentrations of population to support operation of maintenance of facilities.
- Implements policies: CDP-131, CDP-134, CDP-137
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-96 Investigate establishment of a Glenn County Redevelopment Agency and adopt redevelopment plan(s) for blighted areas of unincorporated communities.
- Implements policies: CDP-132, CDP-133
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agency: County Counsel, Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Redevelopment Agency
- CDI-97 Apply for Community Development Block Grant funds for infrastructure improvements in areas of need.
- Implements policy: CDP-132
Priority: 2
Lead Agency: Glenn County Community Services Department,
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors
- CDI-98 Create or assist in the creation of County Service Area(s), assessment districts, Mello-Roos Community Facilities Districts, or other public financing mechanisms such as a Joint Powers Authority, as required to provide for new service delivery.

Implements policies: CDP-132, CDP-135
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

CDI-99 Require marketing studies to be prepared for all developments in which public financing methods are under consideration.

Implements policies: CDP-131, CDP-132, CDP-135
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Planning Commission, Glenn County Board of Supervisors

CDI-100 Conduct a review of school district facility plans and master economic plans to determine the status of plans, the need for supplemental school mitigation fees, and consistency with General Plan policies.

Implements policies: CDP-136, CDP-137, CDP-138
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: School Districts, Glenn County Superintendent of Schools, Glenn County Board of Supervisors, City of Orland, City of Willows

CDI-101 Ensure that the Glenn County Superintendent of Schools and the boards of affected school districts are informed of development proposals and are afforded the opportunity to evaluate their potential effect on the physical capacity of school facilities and their fiscal impact on locally originating revenue requirements. Procedures should be put into practice that will ensure that the conclusions of the educational administrators will be available sufficiently before the County's consideration and action on discretionary land use applications.

Implements policies: CDP-136, CDP-137, CDP-138
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, School Districts, Glenn County Superintendent of Schools

CDI-102 Request that school districts calculate supplemental school mitigation fees on a gross square footage basis and approve adjustments to the fee rate under the following circumstances:

- For inflation using the same procedure as apply to fees imposed pursuant to Government Code Section 65995, and

- As new data available to the school district warrants a change in one or more of the variables used in the calculation of fees.

Implements policies: CDP-136, CDP-137, CDP-138
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Superintendent of Schools, School Districts

CDI-103 Develop an advocacy program to advance County objectives in the State Legislature and State Department of Education.

Implements policies: CDP-136, CDP-137, CDP-138
 Priority : 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Superintendent of Schools, School Districts

Note: Measures CDI-100 through CDI-103 shall not take effect unless the incorporated city within the school district, if applicable, has also adopted the same measures.

CDI-104 Forward all development proposals and General Plan amendments to affected school districts for review with regard to school capacity and potential school sites.

Implements policies: CDP-136, CDP-137, CDP-138
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: School districts

CDI-105 Review proposed school sites for consistency with the General Plan.

Implements policies: CDP-136, CDP-137, CDP-138
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, School districts

CDI-106 Study the establishment of a supplemental development impact fee program to assist school districts to offset impacts upon their facilities resulting from residential growth.

Implements policies: CDP-136, CDP-137, CDP-138
 Priority: 3
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: County Counsel, Glenn County Board of supervisors, Glenn County Superintendent of Schools, School Districts

- CDI-107 Designate and zone areas within urban limit lines at densities sufficiently high to make feasible centralized collection and treatment of wastewater (at least 4 dwelling units per acre).
- Implements policy: CDP-139
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-108 Adopt a Quimby Ordinance to establish a funding mechanism for park acquisition and development in accordance with the standards established in the General Plan.
- Implements policy: CDP-140
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-109 Utilize County Service Area(s) and/or assessment district(s) to finance park maintenance and recreation services.
- Implements policy: CDP-140
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-110 Continue to operate and provide necessary support for the Glenn County Hospital, provided it is financially feasible as determined by the Board of Supervisors.
- Implements policy: CDP-141
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agencies: Glenn County Board of Supervisors
- CDI-111 Annually review response times with fire and police service providers to determine if additional sites for fire and police stations should be incorporated into County plans and/or development approvals.
- Implements policy: CDP-130
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Fire districts, Glenn County Sheriff

5.3.5 Economic Development: Goals and Policies.

Background:

Economic development looms as one of the preeminent issues confronting Glenn County as it plans for its long-term future. The vitality of the county's economy is a direct determinant of the extent to which local residents can afford, and will enjoy, an adequate level of public services. A healthy economy is also necessary to ensure adequate employment opportunities for those living in the county. The availability of income to local wage earners and households, the natural consequence of economic vitality, is one key to county residents' enjoyment of a desirable quality of life. Economic development is discussed in Section 4.6 of the Environmental Setting Technical Paper and Section 6.0 of the Community Development Issue Paper.

Key issues have been identified, and previously documented, which profoundly influence economic conditions in Glenn County and which govern the County's potential to successfully undertake economic development and improvement programs and strategies. These issues include:

- **Unemployment and Seasonal Employment** - The county has one of the highest unemployment rates in the State of California; employment in the area, because of its historic dependence upon agriculture, fluctuates substantially on a seasonal basis.
- **Lack of Economic Diversity** - Agriculture, agricultural: economically-dependent industries, and government employment comprise a disproportionately high percentage of employment in Glenn County. These sectors of the economy are potentially susceptible to economically disadvantageous characteristics such as low prevailing wages, seasonal fluctuations (agriculture), and increasingly constrained funding resources (government). Further, government expenditures are generally derived from locally-raised tax dollars, and do not, therefore, bring net new income into the county from outside.
- **Regional Competition** - Consumer expenditures are generally regarded to "leak" from Glenn County to larger nearby retail trade centers e.g. Chico and Sacramento. At the same time, economic expansion pressures in the Chico area are known to be creating residential demand in Glenn County, and creating demands for public services without a corresponding expansion of the County's tax base to help offset the costs of such services. Competition with Chico, Williams, and other regional locations for new economic activities influences Glenn County's practical economic development potential.
- **Local Business Retention and Expansion** - The success of any active economic development program can often be measured by the vitality and stability of existing local businesses. It will be essential for the County, as it undertakes planning for its economic future, to ensure that business and industry already located in Glenn County continues to prosper.
- **State and Federal Influences** - Several aspects of the Glenn County economy are both directly and indirectly subject to State and federal policies and actions. Given the predominance of State and federal employment in the county, if major changes in the levels of local State and federal employment were to occur, the economy would be significantly impacted. State and federal environmental policies and practices e.g., spotted owl protection,

restrictions on agricultural: air quality burning, etc. have substantial effects on local economic activities such as forestry and farming. Welfare reform, such as has recently been proposed in California, would result in significant savings to Glenn County taxpayers, since a comparatively high percentage of county residents received some form of public assistance. Tax reform, e.g. changes in the State's mandatory workers' compensation insurance system, offers the potential to improve the business climate in Glenn County. Major public works construction projects in the region would boost the local economy through both job creation and local expenditures for food, lodging, and related commodities.

The county has many attributes which suggest that a successful program of economic expansion and improvement is possible: a readily-available, low-cost labor force; a low cost-of-living and a rural environment and lifestyle, appealing to many employers seeking locations for businesses outside California's metropolitan areas; excellent highway access, adequate rail service, and comparatively close proximity to the State's major shipping centers; two general aviation airports; a national forest, several reservoirs and the Sacramento River, offering recreational opportunities to local and out-of-area residents; and the presence of both community college and university-level educational facilities and support programs. Documented constraints to business development and economic growth in Glenn County also exist, and the challenge for local economic development officials will be to overcome such constraints and capitalize upon the county's attributes.

During the process of formulating the General Plan, County officials and residents were presented with three alternative approaches to economic development in Glenn County: an "anti-growth" and "anti-economic development" policy framework, directed toward keeping the County's economy essentially unchanged and placing a priority on preservation of existing conditions and the environment ahead of economic growth; a passive approach to economic development, responding to private sector initiatives as they arise, but making no proactive effort to recruit or accommodate new economic growth for the county area; and a pro-economic growth policy framework, within which the County and various interested parties would actively initiate economic expansion activities. Consensus formed in support of the latter alternative, and the goals, policies and implementation programs set out in the following sections of this General Plan are consistent with that proactive, initiative-oriented approach to economic development. This approach is also consistent with alternative approaches selected for Community Development, Public Safety and Natural Resources which ensures a consistent and integrated approach to growth and development in Glenn County.

Goal:

CDG-19 **Preserve agriculture while increasing the stability of, and diversifying, the county's economy.**

Policies:

It shall be the policy of Glenn County to:

CDP-142 Actively support regional, countywide and local economic development initiatives and programs, through funding, staff responsiveness and assistance, and development policies and project review processes which encourage economic growth.

- CDP-143 Encourage the recruitment and establishment of non-agricultural: economics industries and employment-generating land uses which do not conflict with the County's environmental goals and do not compromise the overall integrity and viability of the agricultural sector of the economy.
- CDP-144 Cooperate with the cities of Willows and Orland in land use and infrastructure planning, and coordination of services, essential to creating an environment in which economic development can occur.
- CDP-145 Encourage commercial and industrial development to locate in areas where adequate facilities and services exist or where facilities and services can be made available.

Goal:

CDG-20 Retain and undergo expansion of existing businesses and industries in Glenn County.

Policies:

It shall be the policy of Glenn County to:

- CDP-146 Cooperate with countywide, local and State economic development efforts to assist local business through facilitated application and permit review process, through priority responses by staff to requests for data and assistance, and through political advocacy and support.
- CDP-147 To the fullest extent reasonably possible, procure goods and services needed by the County from local (Glenn County) vendors and suppliers. All other factors being equal, give preference to vendors and suppliers located within the county; give secondary preference to vendors and suppliers located outside the county but employing Glenn County residents; preference should also be given to vendors and suppliers who utilize products and/or services originating in Glenn County.
- CDP-148 Ensure that County codes and regulations do not impose excessive, unnecessary and/or unreasonably costly conditions or constraints upon local businesses.
- CDP-149 Maintain its schedule of development-related fees at levels proportionately favorable to employment-generating land uses and projects.
- CDP-150 Actively support initiatives at the State level to reform workers' compensation insurance requirements and other State and federally-imposed regulations and requirements which adversely affect California's business climate.
- CDP-151 Ensure contact, by appropriate staff and/or elected officials, regularly with the owners/operators of large local employers to discuss the local business environment and to identify ways in which the County might facilitate or promote the continuing success and long-term viability of local industries and commerce.

Goal:

CDG-21 Attract new business and industry to locate in Glenn County.

Policies:

It shall be the policy of Glenn County to:

- CDP-152 Project a pro-growth, pro-business image through its planning and regulatory policy framework, through its responses to economic and business development initiatives, and through the public statements and actions of its elected and appointed officials. Encourage the use of inducement agreements to attract new businesses to Glenn County.
- CDP-153 Encourage the cities of Willows and Orland to accommodate and facilitate economic and business development proposals initiated within their respective jurisdictions.
- CDP-154 Through its land use, circulation and transportation, and infrastructure planning, create areas within the county which will be appealing to, and capable of accommodating, industrial and other employment-generating development.
- CDP-155 Actively support and cooperate with regional, countywide and local economic development programs and initiatives in their efforts to attract new business and industry to Glenn County and its communities. Support and cooperation may include, but shall not be limited to:
- Data and technical assistance provided by County staff;
 - Participation of the County's elected and appointed officials in "hosting" of industrial and business development prospects;
 - Priority processing of development/building permit applications; and
 - Contributions to funding of business and industrial recruitment activities.
- CDP-156 Actively support the construction and establishment of a Butte College Technology Center (BCTC) in Glenn County.

Goal:

CDG-22 Capture new, or underutilized, market potentials and attract business dollars from outside Glenn County.

Policies:

It shall be the policy of Glenn County to:

- CDP-157 Encourage and promote the utilization of sites along the I-5 corridor by uses which would attract business activity from traffic passing through Glenn County.
- CDP-158 Support the expansion of the county's recreational and tourism industries by:
- Encouraging private sector initiatives to develop recreational and tourist-oriented facilities.

- °Seeking opportunities for cooperative development of resources with the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Army Corps of Engineers, the Bureau of Reclamation and other public agencies with jurisdiction over, or interests in, the county's forest, water, and wildlife assets.
- Coordinating with regional, countywide and local economic development organizations and programs to ensure that the county's recreational opportunities and tourism potential are included in promotional activities undertaken by those organizations and programs.

CDP-159 Encourage the identification, formulation and on-going staging of one or more "events" in Glenn County (e.g. festival, pageant, performance, etc.) by private sector interests which would attract substantial numbers of visitors to the area.

CDP-160 Promote the concept of "doing business locally", by:

- County acquisition of goods and services with preference to local vendors and suppliers; and
- Support for, and endorsement of, local business promotion activities.

CDP-161 Encourage regional and local business recruitment efforts, under the auspices of the various economic development programs operating in the county, which target businesses who require goods and support services capable of being provided by existing businesses.

Goal:

CDG-23 Create new employment opportunities for county residents.

Policies:

It shall be the policy of Glenn County to:

CDP-162 Provide a planning and regulatory policy framework which accommodates and encourages the development and expansion of businesses, consistent with the County's environmental goals.

CDP-163 Actively oppose prospective State and federal regulations and legislation which would discourage new business development and operations.

CDP-164 Cooperate with and support the business recruitment programs conducted by regional, countywide and local economic development organizations.

Goal:

CDG-24 Stimulate local workforce preparation and development to facilitate its placement and utilization in expanding local trade and employment.

Policies:

It shall be the policy of Glenn County to:

- CDP-165 Actively participate in and support the provision of education and training programs made available under the federal Job Training Partnership Act, through the Private Industry Council, and other, similar programs.
- CDP-166 Actively support and administer linkage between public social assistance and job training programs.
- CDP-167 Accommodate, encourage and support programs and facilities which advance education, training and job readiness at Butte College, through California State University, Chico and at local public schools.
- CDP-168 Assist and support local and regional economic development programs and private employers in efforts to obtain job training aid through State and federal programs.

Goal:

CDG-25 Increase the average annual net income earned by Glenn County residents.

Policies:

It shall be the policy of Glenn County to:

- CDP-169 Support the development of employment-generating land uses which utilize semi-skilled and skilled labor and which offer non-seasonal employment.
- CDP-170 Encourage the recruitment, by economic development organizations active in the county, of industries and businesses which will spend their income in the county, benefiting existing local businesses.

Goal:

CDG-26 Coordinate the efforts of economic development groups, planning efforts and regulatory processes in the county and region to maximize results and effectively utilize economic development resources.

Policies:

It shall be the policy of Glenn County to:

- CDP-171 Actively support, and be adequately represented on, regional e.g., Tri-County Economic Development Corporation, and countywide e.g., Glenn Chamber of Commerce Economic Development, Inc., economic development organizations' programs.
- CDP-172 Ensure that Glenn County remains informed of, and sensitive to, the needs and priorities of regional, countywide and local e.g., Orland Economic Development Commission, economic development organizations and programs.
- CDP-173 Maintain contact, and a working relationship, with representatives of the State Department of Commerce.

CDP-174 Support and participate in the preparation of the Overall Economic Development Plan for the tri-counties area, as administered by the federal Economic Development Administration.

Goal:

CDG-27 Expand and diversify the County's tax base and fiscal stability by achieving economic growth without offsetting environmental, social, and fiscal cost impacts.

Policies:

It shall be the policy of Glenn County to:

CDP-175 Encourage the recruitment, and accommodate and facilitate the location, of businesses and industries which generate sales tax and other local government revenues under current California financing and tax law.

CDP-176 Consider extension of infrastructure improvements and other material assistance, within the parameters of applicable statutes and governing regulations, to prospective new (or expanding) industries and businesses for which it can be demonstrated that substantial County tax benefits will result.

Implementation Strategies, Programs and Priorities:

CDI-112 Annually allocate funds to economic development programs and activities, including funding support for Glenn Chamber of Commerce Economic Development, Inc., the Tri-County Economic Development Corporation and economic development initiatives undertaken by, or participated in, by County officials and/or staff. Review and coordinate other organizations' economic development directions with the goals, policies and implementation strategies in this General Plan.

Implements policies: CDP-142, CDP-143, CDP-164, CDP-170, CDP-171, CDP-175, CDP-176

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agency: Glenn County Planning Department

CDI-113 Designate the County Planning Director as the principal County liaison for the County's role in economic development with responsibility for coordinating with other local economic development program personnel.

Implements policy: CDP-142

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agency: Glenn County Planning Department

- CDI-114 Maintain County representation on, and participation in the affairs of, the Boards of Directors of Glenn Chamber of Commerce Economic Development, Inc. and the Tri-County EDC.
- Implements policies: CDP-142, CDP-171
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-115 Develop a "fast track" project review process for applications which include economic development benefits.
- Implements policies: CDP-142, CDP-146, CDP-175
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Building Department, Glenn County Board of Supervisors
- CDI-116 Provide education to County departments, commissions, elected officials and the public regarding the benefits and importance of economic development.
- Implements policies: CDP-142, CDP-146, CDP-152, CDP-155, CDP-172
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation, City of Orland, City of Willows
- CDI-117 Work with Glenn Chamber of Commerce Economic Development, Inc. and the cities of Orland and Willows to establish a list of "target" businesses and industries to be the focus of economic development and business recruitment initiatives in Glenn County; update this list annually.
- Implements policies: CDP-143, CDP-161, CDP-164, CDP-170, CDP-175
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc., City of Orland, City of Willows
- CDI-118 Create and maintain a data base inventory of available sites in Glenn County, Willows and Orland which identifies available sites for industrial and other business development and which describes parcelization and ownership, zoning, infrastructure capacities and other site attributes and/or constraints.
- Implements policies: CDP-144, CDP-145, CDP-175
Priority: 2
Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc. City of Orland, City of Willows

CDI-119 Incorporate language into County invitations to bid for goods and services indicating preference for local vendors and suppliers, other factors being equal; exercise such preference in selecting vendors and suppliers; develop a list, by type of goods or services, of preferred (local) vendors for County acquisitions and purchases.

Implements policies: CDP-147, CDP-160
Priority: 2
Lead Agency: Glenn County Purchasing Officer
Coordinating Agency: County Counsel

CDI-120 Conduct workshops, inviting representatives of local industries and businesses and local economic development personnel, to review applicable codes and regulations and learn the most cost-effective ways of compliance.

Implements policies: CDP-146, CDP-150, CDP-160
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc., City of Orland, City of Willows

CDI-121 Annually review and evaluate development and impact fees e.g., water and sewer hook-up fees, school fees, road improvement fees, and application processing fees, for industrial and commercial projects to ensure that they do not exceed similar fees in other rural California counties and base recommendations for fee adjustments on the policy of keeping development fees favorable to employment-generating land uses, in proportion to residential and other uses.

Implements policies: CDP-145, CDP-149
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: School Districts, Special Districts, Glenn Chamber of Commerce Economic Development, Inc., City of Orland, City of Willows

CDI-122 Correspond and meet with State legislators representing Glenn County to advocate reform to existing workers' compensation insurance statutes and regulations; urge the California State Association of Counties to intensify lobbying to secure workers' compensation reform.

Implements policy: CDP-150
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc.

CDI-123 Encourage the formation of a "Business Managers' Roundtable", comprised of the key managers, owners or proprietors of large local employers and high-level representatives of the Cities of Orland and Willows and the County, to meet monthly and review issues of concern to business in Glenn County; utilize this forum to identify and initiate resolution of concerns on which the cities and County can be of assistance to business.

Implements policy: CDP-151
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn Chamber of Commerce Economic Development, Inc., City of Orland, City of Willows

CDI-124 Sponsor, or support the sponsorship by Glenn Chamber of Commerce Economic Development, Inc., of an annual survey of local business owners/operators, regarding issues of concern, plans for expansion, satisfaction with or complaints regarding local services, and other topics relevant to identifying how performance and retention of such businesses might be enhanced through local government and community initiatives.

Implements policy: CDP-151, CDP-164, CDP-170
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Glenn County Planning Department

CDI-125 Sponsor, or support the sponsorship by Glenn Chamber of Commerce Economic Development Inc., of an annual "Employer Appreciation Day", comprised of activities such as the following:

- Recognition of "Glenn County Business of the Year", based upon employment generation, service to the community and area, stature in the industry represented, longevity, stability, and similar criteria;
- Recognition of the county's major employers in local and regional media, acknowledging their contributions to the local and regional economies; and
- A business owners'/operators' event, at which the business of the year award would be presented and at which other expressions of appreciation to business by local and regional officials would be made.

Implements policies: CDP-151, CDP-152
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department

CDI-126 Include in each staff report submitted to the County Planning Commission and/or Board of Supervisors on a development application, proposed policy decision, ordinance or other action, a section addressing impacts upon or implications for economic development associated with the proposed action.

Implements policies: CDP-148, CDP-152, CDP-162, CDP-169
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc.

CDI-127 Sponsor a meeting, or series of meetings, among the staffs and/or Planning Commissions of Willows, Orland and Glenn County to review and critique each jurisdiction's planning policies and regulations to identify, and devise strategies to address, aspects of those policies and regulations which can be strengthened to enhance industrial and business development potential and to remove existing constraints on such development, if any.

Implements policy: CDP-153
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: City of Orland, City of Willows, Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-128 Encourage industrial parks, or similar facilities, at Orland-Haigh Field Airport, adjacent to the County landfill and in development nodes, in with adequate infrastructure to support new industries, including the potential relocation of industries from elsewhere in the region which could still employ outlying area, as well as Glenn County, residents. These facilities should be explored as private sector development; alternatively, formation of a specialized public or not-for-profit private investment/financing organization should be initiated to accomplish these developments and the subsequent marketing effort which would be required. Efforts at the Orland-Haigh Field Airport should be directed at aviation-related, as well as nonaviation-related, businesses. Efforts at the County landfill should be related to recycling or power generation.

Implements policies: CDP-154, CDP-176
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc., Glenn County Public Works Department

CDI-129 Work with the cities of Orland and Willows to ensure that adequate infrastructure extensions are feasible to serve sites along I-5 and industrial sites in other portions of those communities.

Implements policies: CDP-154, CDP-176
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Public Works Department

CDI-130 Sponsor, or support sponsorship by Glenn Chamber of Commerce Economic Development, Inc., of an annual "Economic Development Summit" conference in Glenn County, with participation from key officials of the County, each city, local economic development organizations, elected State and federal legislators, the agricultural community, CSU Chico, Butte Community College, the National Forest Service, the U.S. Fish and Wildlife Service, and other appropriate parties. This conference would focus on ensuring necessary consistency among each of the active participants in local economic development regarding objectives and essential coordination of resources.

Implements policies: CDP-155, CDP-158, CDP-164, CDP-175

Priority: 2

Lead Agency: Glenn County Board of Supervisors

Coordinating Agency: Glenn County Planning Department

CDI-131 Participate in "hosting" of business and industrial prospects considering Glenn County as a prospective location.

Implements policies: CDP-155, CDP-164, CDP-170, CDP-175

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development, Inc.

CDI-132 Sponsor, or support sponsorship by Glenn Chamber of Commerce Economic Development, Inc., of a "Discover Glenn County" day, at which local participants would host invited industries and businesses who might be looking for business locations; activities would include tours of prospective sites in the county appropriate to each industry, meetings with existing business operators, meetings with city and County officials, and related functions.

Implements policies: CDP-155, CDP-164, CDP-175

Priority: 2

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development, Inc.

CDI-133 Prepare plans for selected I-5 interchanges in Glenn County, determining and establishing the types and intensities of services required to support development at each of these locations and prescribing appropriate development standards which would maximize the extent to which uses at these sites would appeal to highway travelers.

Implements policy: CDP-157

Priority: 3

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-134 Identify community-organized capabilities to stage, a major theme "event" for Glenn County. Examples of potential events which would bring outside dollars to the county might include:

- Continued support for the annual Glenn County harvest festival and other festival events;
- A wildlife or waterfowl festival, with tours of the refuges, wildlife art displays and sales, a repertoire of classic wildlife-oriented movies, e.g., Call of the Wild, The Bear..., local restaurants featuring wild game entrees, workshops on conservation and ecology, and other related activities;
- A country western music festival;
- In the foothills west of Willows or Orland, a "history of California" (or some portion thereof) pageant, along the lines of the world-famous passion plays at Spearfish, South Dakota, and Oberammergau, Germany, or the Ramona Pageant in Hemet, California.

Implements policy: CDP-159

Priority: 3

Lead Agency: Glenn Chamber of Commerce Economic Development Inc.

Coordinating Agencies: City of Orland, City of Willows, Glenn County Planning Department

CDI-135 Sponsor and coordinate, or support sponsorship and coordination by Glenn Chamber of Commerce Economic Development, Inc., of a trip once each year by Glenn County local government officials and local business representatives to meet with elected representatives of the County in Sacramento and to familiarize them with business and economic concerns affecting the county and its communities.

Implements policy: CDP-163

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development, Inc.

CDI-136 Routinely review proposed legislation affecting business and economic conditions in Glenn County and in California as a whole; prepare positions for adoption by the Board of Supervisors favorable to business which are consistent with overall County policy; forward positions of the Board to the county's elected State and federal legislators.

Implements policy: CDP-163

Priority: 1

Lead Agency: County Counsel

Coordinating Agency: Glenn County Planning Department, County Counsel

CDI-137 Participate in education and training programs made available under JTPA and through other resources.

Implements policy: CDP-165
Priority: 2
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-138 Support and participate in public assistance program linkages with job training and placement.

Implements policy: CDP-166
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Community Services Department, Glenn County Social Services Department

CDI-139 Participate in education and job training and placement programs offered through local public schools, Butte Community College, and CSU Chico; encourage and provide incentives for county employees to improve job skills through such programs; make job placement opportunities available to participants in such programs through coordination and recruitment efforts by the County.

Implements policies: CDP-156, CDP-167
Priority: 2
Lead Agency: Glenn County Personnel Officer
Coordinating Agencies: Glenn County Community Services Department, Glenn County Board of Supervisors

CDI-140 Provide technical assistance and data to other local agencies and organizations who require such support to apply and qualify for job training and employment development grants and allocations.

Implements policy: CDP-168
Priority: 1
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-141 Establish and maintain continuing contact between County representatives and staff at the State Department of Commerce.

Implements policy: CDP-173
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn Chamber of Commerce Economic Development, Inc.

CDI-142 Assign a County department to coordinate with other counties and cities and the federal Economic Development Administration maintenance and update of the Overall Economic Development Plan.

Implements policy: CDP-174
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of
Commerce Economic Development, Inc.

**APPENDIX
LISTING OF TARGET INDUSTRIES AND BUSINESSES**

Using a variety of techniques, communities and regional economic development organizations have attempted over the years to "target" their business recruitment and industrial promotion efforts, focusing their resources on those industries and businesses most likely to be expanding and willing to locate facilities in a local area. The magnitude and complexity of the industrial and business sector of the national economy makes such a targeting effort a formidable task.

To a large degree, potential target industries and businesses for any locale will be a function of that area's competitive position, with respect to attributes and liabilities, in comparison to other locations serving the same markets. In this regard, Glenn County offers substantial attributes for many industry and business types, but is also characterized by significant liabilities which would prevent many types of businesses from locating in the county. Utilizing an abbreviated form of an evaluative tool used by industrial site selectors in making locational decisions, the comparative attributes of Glenn County as a prospective business location, as compared to other rural counties, have been analyzed. The results of this analysis are summarized below.

OPERATING COST FACTORS GLENN COUNTY RATING

- | | |
|------------------------------|------------------------|
| 1. Manufacturing wage levels | Competitive |
| 2. Clerical wage levels | Competitive |
| 3. Market location/freight | Neutral |
| 4. Utility costs | Competitive |
| 5. Land costs | Competitive to neutral |
| 6. Taxes | Competitive |

OPERATING CONDITION FACTORS

- | | |
|---|----------------------------|
| 1. Labor availability | Competitive |
| 2. Labor quality | Neutral |
| 3. Labor/management relations | Competitive |
| 4. Availability/quality of utility services | Neutral to non-competitive |
| 5. Highway accessibility | Neutral |
| 6. Transportation services | Neutral to non-competitive |
| 7. Vocational/educational facilities | Neutral to competitive |
| 8. Protective services | Neutral |
| 9. Site availability/suitability | Non-competitive |
| 10. Public attitudes/policy environment | Competitive to neutral |
| 11. Environmental constraints | Competitive |
| 12. Financial incentives | Neutral to competitive |

QUALITY OF LIFE FACTORS

- | | |
|-------------------------------|-----------------|
| 1. Housing cost/availability | Neutral |
| 2. Local shopping facilities | Non-competitive |
| 3. Hotel/motel accommodations | Non-competitive |

- | | |
|------------------------------|----------------------------|
| 4. Educational opportunities | Neutral to competitive |
| 5. Medical/health services | Neutral to non-competitive |
| 6. Community environment | Neutral to competitive |
| 7. Recreation/cultural | Neutral to non-competitive |

To summarize the ratings set out above, the following factors were rated as "competitive", suggesting that Glenn County could capitalize on them in marketing the area to prospective new businesses:

- | | |
|-----------------------------|------------------------------|
| • Manufacturing wage levels | • Labor availability |
| • Clerical wage levels | • Labor/management relations |
| • Utility costs | • Environmental constraints |
| • Taxes | |

Additionally, the following factors were rated "neutral to competitive", suggesting that they could be represented as potential attributes to prospective businesses seeking Glenn County as a location, depending upon specific characteristics of the business:

- | | |
|---------------------------------------|-----------------------------|
| • Vocational/educational facilities | • Educational opportunities |
| • Public attitudes/policy environment | • Community environment |
| • Financial incentives | |

Finally, the following factors were rated either "neutral", "neutral to non-competitive" or "non-competitive", indicating that they do not, other than on an exceptional basis, represent potential attributes to offer to business and industry in competition with other areas of rural California seeking business locations and expansion:

- | | |
|--|---------------------------------|
| • Market location/freight | • Site availability/suitability |
| • Labor quality | • Housing cost/availability |
| • Availability/quality of utility services | • Local shopping facilities |
| • Highway accessibility | • Hotel/motel accommodations |
| • Transportation services | • Medical/health services |
| • Protective services | • Recreation/culture |

Given the attributes and liabilities identified above, and in the context of both known trends in business and industrial development elsewhere in the State and nation, the following list of potential "target" businesses and industries has been developed to suggest the types of new businesses which might be successfully recruited to locate in Glenn County:

- Dairies and the processing of dairy products (this industry is rapidly being displaced from the State's metropolitan areas and is seeking locales where operating conditions are appropriate and where long-term stability seems assured).
- Brewing and/or making and bottling beverages (the county has a readily available water supply and adequate, if not optimal, shipping access and lies in relative proximity to ingredient sources for beer, soft drinks, etc.).

- Clothing products (the wage structure in the county is consistent with the requirements of this industry, which continues to grow slowly but steadily in the U.S.; and shipping capabilities are adequate to support such an industry).
- Mobilehome and modular housing manufacturing (foreseen as a potential growth industry for the 1990's and beyond, this industrial classification is only somewhat location-sensitive with respect to materials shipping and the delivery of product; Glenn County is similar in several respects to other mobilehome and modular housing product manufacturing sites in California)
- Miscellaneous "proprietary" industries and businesses i.e., businesses operated by their owners and employing up to approximately fifty workers (such businesses, where products are owner-developed and often occupy unique market niches, tend to not be location-sensitive for traditional reasons, sites being determined instead by owner preference for a living environment or other personal factor)
- Assembly and/or packaging of manufactured products (shipping capabilities and market location of Glenn County are not optimal for such industries, but labor force characteristics and operating costs characteristics are suited).

Other industry and business categories which were identified by local officials, residents and other interested parties during the General Plan preparation process as having potential to be attracted to Glenn County include:

- Recycling operations (a feasibility study to determine whether such operations could be located in the county, under the auspices of a "recycling market development zone", was underway during the General Plan formulation process).
- So-called "bio-tech" industries (based upon the forest and agricultural products base to the county's economy, making a preponderance of resource material available).
- Mineral, e.g. natural gas and aggregate, extraction (the county is already the site of some natural gas wells and has a substantial aggregate resource in the foothills to the west of I-5).

In addition to the industries discussed above, the issue of retail business expansion and/or recruitment was a topic of discussion during the General Plan process. Previous studies have shown that the potential for regional retail development in Glenn County is currently quite limited. Community-level commercial uses will continue to develop in response to locally-generated market demand, but for purposes of this discussion, are not regarded as a segment of the economy requiring specific targeted recruitment efforts. Retail commercial outlets, however, which would bring net new (outside) expenditures into the county, employ substantial numbers of people and establish or fill a unique regional market niche are an appropriate target for the County's economic development efforts. One potential business category which might meet these criteria is an outdoor recreation products (camping, hunting, fishing, etc.) outlet center. Such a center, which would include major "name" outdoor products outlets, could prospectively

be developed along the I-5 corridor and would be expected to attract trade from throughout the Sacramento Valley region, as well as highway traffic.

Business categories included in this discussion are not intended to be an exhaustive representation of target industries and outlets which should be pursued by Glenn County in furtherance of the County's economic development objectives. As recommended in the text of the General Plan, the County and the various economic development organizations which are active locally should annually review and compile a priority listing of industry and business categories upon which specific recruitment activities would be concentrated.

GLENN COUNTY GENERAL PLAN

VOLUME II - ISSUES

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SECTION 1 - NATURAL RESOURCES ISSUE PAPER

1.0 INTRODUCTION

The Natural Resources Issue Paper is one of three papers prepared to assist in the formulation of an updated Glenn County General Plan. The other two papers are the Public Safety Issue Paper and the Community Development Issue Paper. Originally published separately as draft documents, the three papers have now been updated and bound into a single volume (Volume II). Each paper focuses on several topics which have been identified for discussion in the General Plan. Topics were suggested either by participants in the process or are identified by the State General Plan Guidelines as matters which must be addressed.

The Natural Resources Issue Paper focuses on attributes which are related to the physical environment of Glenn County. Included are agriculture and soils, water, biology, timber, minerals and energy, and cultural resources. The focus is on the non-urban parts of Glenn County and on programs and ways to retain, enhance and utilize the natural environment. In addition to a discussion of issues, the document contains three alternative natural resource scenarios for Glenn County. The draft Natural Resources Issue Paper also contained recommended goals, policies, implementation strategies and standards. These goals, policies, implementation strategies and standards have been reviewed and have been incorporated, with modifications, in the Policy Plan document (Volume I).

This series of papers was preceded by the Environmental Setting Technical Paper which was released in September 1991. The Technical Paper contains much of the data on which the present papers are based. Where necessary, that data was supplemented through additional research. References are made to the Technical Paper and it will be helpful for the reader to have access to a copy of the previous document when reviewing the Issue Papers.

2.0 AGRICULTURE/SOILS

Background

Two-thirds of Glenn County's 1,317 square miles are comprised of agricultural croplands and pasture. With the exception of range land, which encompassed 240,000 acres in 1990 (1990 Annual Crop and Livestock Report for Glenn County), rice is the largest crop in both acreage and valuation, accounting for more than one-fourth of the total agricultural value generated in the county. The prime agricultural soils which support the county's cropland are located in the eastern third of the county along the floodplain of the Sacramento River. Grazing lands are found in the central foothills and to the west in the Glenn County portion of the Coast Range, and also within the Mendocino National Forest.

Specific Concerns

2.1 Agricultural Land Preservation

The importance of agricultural land preservation can be viewed from both an economic and environmental perspective. As the most extensive land use in Glenn County, agriculture constitutes a significant component of the County's economy. According to the State of California Employment Development Department (EDD), agriculture represented the single largest source of private sector employment in Glenn County in 1990. From an environmental perspective, prime agricultural land, of which 173,565 acres are classified in Glenn County, is an important soil resource, the conversion of which constitutes an irreversible loss. Conversion of prime agricultural land typically leads to the conversion of less productive soils to farmland in an attempt to compensate for the loss of the more productive soils. The conversion of these marginal soils can lead to other resource problems such as soil erosion, and increased energy consumption and economic investment to make the land productive. In addition, the conversion of environmentally sensitive areas to agricultural uses in an attempt to compensate for the loss of prime agricultural soils can lead to the loss of other resources such as wetlands and other special habitat.

The value of agricultural land is not limited to the provision of food, fiber and jobs. Agricultural land also provides open space which has both psychological and aesthetic benefits, and provides important wildlife habitat. The importance of agricultural resources has been acknowledged on a statewide basis over the last twenty years through such programs as the Williamson Act and the Farmland Mapping and Monitoring Program. The general plan process provides an opportunity for the County to establish the relative importance of agricultural lands preservation locally as compared to competing interests, such as other forms of economic development, the construction of housing, and wetlands restoration.

2.1.1 Significance of Important Farmlands

Important Farmland mapping efforts were originally started in 1975 by the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS). Modern soil surveys were used as a basis for establishing criteria to classify land according to its suitability for agricultural production. This effort was transferred to the Farmland Mapping and Monitoring Program of the State Department of Conservation in 1982. The data base established through this program provides a means for tracking the conversion of important agricultural land to other uses and can assist local, state and federal governments in making land use decisions which best utilize the remaining agricultural lands. The General Plan provides an opportunity to utilize this information in the long-range planning process and to establish through policy how the mapping program will be utilized in future decision-making.

Seven categories are used in mapping California's Important Farmlands: Prime Farmland (lands with the best combination of physical and chemical features); Farmland of Statewide Importance (lands similar to Prime but with minor restrictions); Unique Farmland (lands of lesser quality soils used for the production of the State's leading agricultural cash crops); Farmland of Local Importance; Grazing Land; Urban and Built-up Land; and Other Land (those which do not meet the criteria of any other category). Glenn County has defined Farmlands of Local Importance as all lands not qualifying for Prime, Statewide, or Unique that are cropped on a continuing or

cyclic basis (irrigation is not a consideration); all croppable land within Glenn County water district boundaries not qualifying for Prime, Statewide, or Unique; and all land having Prime and Statewide soil mapping units which are not irrigated.

The Environmental Setting Technical Paper contains a table and map showing the distribution of Important Farmlands in Glenn County. An examination of this information shows that Important Farmlands virtually cover the Valley floor portion of the county. Because such lands are synonymous with those that are most readily developable for nonagricultural purposes, it will be very difficult to entertain new growth opportunities without encroaching into such lands. Options include foothill development and emphasis on infill of existing community areas.

2.1.2 Preservation Tools

On a local level, preservation of agriculture/open space can be implemented in a variety of ways. The most common method of controlling land use is through zoning. Exclusive agricultural zoning classifications can be established which allow only agricultural uses and related uses which are necessary to and an integral part of agricultural operations. By restricting the permitted uses to agriculture and related operations, the existing agricultural uses are protected from the encroachment of incompatible uses. Minimum parcel sizes can also be regulated through zoning requirements. Larger minimum parcel requirements can be used to ensure that land is not subdivided into lots which are not conducive to agriculture.

Glenn County has adopted an exclusive agricultural zoning classification, the AE Zone, which is broken down into three sub-zones, the AE-20, AE-40 and AE-80 Zones. The minimum parcel size allowed under these sub-zones are twenty, forty and eighty acres respectively. The zoning regulations allow for both intensive and extensive agricultural uses. Other agriculturally-related zoning classifications which have been adopted by the County are the FA (Foothill Agricultural/Forestry) Zone, the AP (Agricultural Preserve) Zone, and the AT (Agricultural Transitional) Zone. The FA Zone provides for extensive agricultural activities and the protection of timber and forest lands suitable for logging. The minimum parcel size allowed in the FA Zone is one hundred sixty acres. The AP Zone is applied to lands which are under Williamson Act contract and contains a minimum parcel size requirement of eighty acres in the valley area and one hundred sixty acres in the foothill area. The AT classification is used as a buffer zone between agriculture and urban development. With sub-zones of AT-5, AT-10 and AT-20 with corresponding minimum parcel size requirements of five, ten and twenty acres, these zones allow limited agricultural and livestock uses and low density residential development.

Urban limit lines can be established and incorporated into the General Plan. An urban limit line is a boundary that marks the ultimate growth area around a developed area whether it is an incorporated city or unincorporated entity. The purpose of the boundary is to encourage concentric growth and infill development and discourage urban sprawl. Typically, the ultimate growth boundary corresponds with the Spheres of Influence adopted by the County Local Agency Formation Commission (LAFCo). Within the ultimate boundary, additional boundaries or lines can be utilized to represent phased growth areas such as five- or ten-year periods. These lines can then be used as a guide for decision makers when reviewing development requests.

The result is that development occurs in areas where necessary services, e.g., water, sewer, police and fire protection, can be provided and/or extended in an efficient and economic manner, while at the same time directing development away from agricultural and environmentally sensitive areas. Further discussion of urban limit lines can be found in the Community Development Issue Paper, Section 2.1.

Transfer of development rights (TDR) is a device which can be used to redistribute property development rights. As a preservation tool, a TDR program can direct urban or non-agricultural uses away from agricultural areas by establishing preservation and development districts. Landowners within county preservation districts can relinquish and sell their development rights to landowners within the County-designated development districts. The incentive for developers to purchase the development rights from farmers is that they receive a "density bonus" which allows development of their property at a higher density than allowed under the current zoning. TDR programs can be established as either a voluntary or mandatory program.

Conservation easements can be used to preserve agricultural lands as well as other natural resources, (e.g. water, wildlife areas, and scenic corridors). A conservation easement is a voluntary agreement between a landowner and a qualified conservation organization, either a tax-exempt non-profit organization or a governmental agency, which legally restricts the use of the land. In return for relinquishing certain property rights (e.g. constructing residences and other structures, subdividing, oil or mineral extraction, or timber harvesting), the landowner may receive tax benefits including income tax deductions, reduction of estate taxes, or reduced property taxes due to the decline in assessment based on the loss of development potential.

As a part of the general plan process, the County should review the several preservation tools discussed above. The minimum agricultural zoning parcel sizes should be examined to determine if they are, in fact, effective. Also, does the AT Zone serve a useful and valuable purpose or is it simply an intermediate step toward removal of land from production? If the latter is true, it may be more efficient to allow the land to develop at a higher density from the outset. If urban limit lines are to be utilized, their relationship to the AT Zone must be established.

2.1.3 Status of Soils Information

A soil survey for Glenn County was published by the USDA in May 1968. The survey was undertaken in a cooperative effort by the University of California Agricultural Experiment Station, the Forest Service, and the Soil Conservation Service as part of the technical assistance provided to Glenn County and to the Elk Creek Soil Conservation District by these agencies. Major fieldwork for the survey was completed during the years 1951 to 1958. Soil names and descriptions were approved in 1964. Statements included in the published survey generally refer to the conditions in the county from 1960 to 1965. This 1968 survey was used as the basis for the Important Farmlands Mapping completed under the Farmland Mapping and Monitoring Program.

In May 1974, the 1968 Survey was used for reference in a report entitled Estimated Permeabilities For Soils In The Sacramento Valley, California, prepared by Gilbert L. Bertoldi in cooperation with the California Department of Water Resources. The purpose of this study was to develop a better understanding of the hydrologic system of the Sacramento Valley by preparing a soil permeability map of the area and a map of soils which contain barriers or clays that may reduce the vertical flow of water (also see Section 3.0 Water Resources).

There has been some concern expressed locally that the soils information contained in the 1968 Survey should be updated and made more current. According to the Soil Conservation Service office in Willows, a survey update will be initiated by SCS during fiscal year 1991/92. The update will include field survey and mapping efforts for the counties of Tehama, Glenn and Shasta. It is not anticipated that soil boundaries will change significantly, however, the descriptions of soil classifications will. The survey area will be divided into resource areas which cover the coast foothill, the central valley, and the Sierra foothill and mountain areas. The first resource area for which data will be updated is the coastal foothill area. It is anticipated that it will take two to three years to complete the update for each resource area. Even though the updating process is such a lengthy one, once completed, the new survey will provide data which will be of benefit to the County. Although the general plan process cannot wait until receipt, support for this effort should be expressed in the General Plan.

2.2 Williamson Act

The Williamson Act is a non-mandated State program, administered by counties and cities, for the preservation of agricultural land. Participation in the program is voluntary on the part of both landowners and local governments, and is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts. Individual property owners enter into a contract which restricts or prohibits development of their property to non-agricultural uses during the term of the contract in return for lowered property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of nonrenewal is filed or a contract cancellation is approved by the local government. State subventions are paid to participating county and city governments, based on enrolled acreage, in partial repayment for lost property taxes.

State law requires that participating counties and cities adopt rules governing the administration of agricultural preserves and the types of uses allowed on land under contract. The uniform rules governing the types of uses allowed on lands under contract in Glenn County are contained in the "AP" zoning regulations of the Glenn County Zoning Code.

Interest has been expressed at the local level in expanding the compatible use list for lands under contract. A bill has been introduced into the Assembly, AB 1770, which would require that a compatible use ordinance be adopted by each participating board or council which only includes uses that conform to specified principles set forth in State law, including conditioned uses which would not comply with the principles without applicable conditions or mitigation measures. To meet the definition of compatible, the use would need to meet the following principles of compatibility:

°The use will not significantly compromise the agricultural viability of the subject parcel or other lands in agricultural preserves;

°The use will not pose any actual conflict with current or potential agricultural use of the subject land, or other lands in agricultural preserves; and

°The use will not induce nonagricultural growth or intensify pressures for conversion of other lands from agriculture.

The draft ordinance must be referred to the Department of Conservation for review and comment prior to adoption. If this bill is approved, the potential for expanding the compatible use list beyond the currently adopted regulations contained in the AP Zone may be limited.

Williamson Act contract applications were accepted in Glenn County from 1971 to 1985. Due to the decline in State subvention monies and loss of general fund revenues, the County has not accepted new applications since 1985. The County currently has 276 executed contracts covering 45,559 acres of prime agricultural land and 270,920 acres of non-prime land. To date, five notices of nonrenewal have been processed in the county and one cancellation application has been approved. The County is currently processing a request for cancellation on 370 acres for which a notice of nonrenewal had previously been filed.

2.2.1 Cancellation

State law establishes the procedures for cancellation of Williamson Act contracts and requires that all cancellations be carried out in accordance with those procedures. There is no local discretion.

State law limits the termination of a Williamson Act contract through the cancellation process to "special" or "extraordinary" circumstances. In contrast to the nonrenewal process in which a contract is phased out over a nine-year period, approval of a cancellation request results in the immediate termination of a contract once conditions are met. Only the land owner can apply for cancellation and only the governing board of a local government can approve such a request after holding a public hearing and making the finding that the cancellation would either be consistent with the intent of the Williamson Act or would be in the public interest. If a landowner receives approval of cancellation, payment of a penalty based on a percentage of the current market value of the land is required prior to termination of the contract.

Although implementation of the Williamson Act Program is voluntary, once contracts are executed, withdrawal from the program can only be undertaken in accordance with State law. The local entity may, however, impose more stringent requirements for cancellation than those specified under State law. Notices of nonrenewal can be filed either by the property owners or the local entity, after adequate notice has been given, as set forth in State law.

2.2.2 Minimum Parcel Size

Minimum parcel sizes for lands under Williamson Act contract in Glenn County are established under the "AP" Agricultural Preserve Zone site area requirements of the Glenn County Zoning Code. For prime land (valley floor) the minimum parcel size is 80 acres, and for non-prime land (foothill area) the minimum parcel size is 160 acres. Chapter 19.34 of the Zoning Code further stipulates that variances to the minimum parcel size requirements are prohibited.

Under State law, the minimum parcel size for prime agricultural land is 10 acres; for non-prime the minimum parcel size is 40 acres. The minimum parcel standards established by Glenn County are more restrictive than those set forth in State law and, therefore, meet the intent of State law. A survey was conducted among surrounding counties to see if Glenn County's requirements were comparable as follows:

Table 2.2-1

Williamson Act Contracts Acreage Requirements

County	Minimum Parcel
Tehama	40 acres prime 160 acres non-prime
Trinity	40 acres 100 acres for preserves
Lake	100 acres
Mendocino	100 acres for preserves
Colusa	80 acres
Butte	10-160 acres
Sutter	Does not participate in Williamson Act

Source: QUAD Consultants, 1991

It has been suggested that the County may wish to consider a reduction in minimum parcel size for foothill lands. The present minimum parcel size of 160 acres does not appear to be out of line with what other similar counties require. Grazing operations typically require large parcels of land to be viable. Since this is the predominant use of land in the foothill region, a reduction in parcel size would appear to be difficult to justify under the Williamson Act.

2.2.3 Continued Participation

As indicated earlier, Glenn County has not accepted new applications for Williamson Act contracts since 1985 due to the decline in State subvention monies and the loss of County revenue caused by the reduction of property taxes. For the 1988-89 tax year, the foregone property tax estimate for Glenn County was \$419,000 or 11.5 percent of the property tax revenues. Subvention monies were paid to the County in the amount of \$171,806, resulting in a net loss to the County's general fund of \$247,291. Since 1985, the County has contemplated withdrawing from the program by filing County-initiated notices of nonrenewal for all contracts.

An issue for the County to take into consideration when deciding whether to continue with the program is the possibility of State withdrawal of all subvention monies. Money for subvention payments is allocated within the current State budget and continuance of the program is a high priority of the State Department of Conservation, according to the Department. There are no guarantees, however, that such subventions will be included in future budgets due to cutbacks throughout State programs.

Agricultural landowners in the county are supportive of the Williamson Act program. This can be documented by the fact that only five notices of nonrenewal and two cancellation requests have ever been received by the County. The interest in the program may grow over the next few years depending on the outcome of a case currently before the U.S. Supreme Court which challenges Proposition 13. Should Proposition 13 be overturned, the Williamson Act program may be a key factor in the economic viability of retaining land in agricultural production.

As a part of the General Plan process, the County needs to establish clear policy on how it views the future of the Williamson Act. Without such a determination, it will be very difficult to make assumptions about future use of land now in Williamson Act. If the County determines to continue with the Act, the General Plan should establish the circumstances under which new Williamson Act contracts would be executed. As an example, if the General Plan clearly identifies an area as remaining in agriculture during the term of the Plan, there would appear to be no basis for withholding a Williamson Act contract, except from a revenue perspective. Similarly, there would also appear to be no basis for cancellation.

2.3 Changes in State and Federal Policies, Legislation and Regulations

Changes in policies, legislation and regulations at the State and federal level can have a severe effect on agricultural operations and general farming practices in Glenn County. It is, therefore, appropriate to examine pending changes as a part of the General Plan process.

2.3.1 Water

Known as the Agricultural Water Conservation and Management Act of 1992, Assembly Bill No. 1160 was approved by the Governor in July, 1991. This bill authorizes suppliers of water for agricultural use to institute a water conservation or efficient water management program which incorporates, at a minimum, the three following components:

- Provision of irrigation and other water use management services to persons served by the water supplier such as: providing information on historic and current crop water use data including evapotranspiration and leaching requirements; providing irrigation consulting services to improve on-farm water use practices; recommending more efficient techniques for preplanting irrigation; and providing irrigation management improvement services.
- Making physical and structural improvements to the water supplier's delivery system and aiding in the improvement of on-farm systems such as: using flow measuring devices in the delivery system; lining ditches and canals; and evaluating the storage, conveyance, and

drainage systems of both the supplier and farmers and the application systems of the farmers to maximize efficient water management.

- Making institutional and operational adjustments such as: allowing changes or flexibility in the water contract year to more closely fit water-use characteristics of the crops being grown; establishing a pricing structure for water delivered to encourage conservation; developing on-farm conservation education programs for farmers; and encouraging voluntary exchanges of water between suppliers which have surplus water and suppliers which have a water shortage.

Senate Bill No. 622 was introduced in March of 1991 which, if passed, would enact the Agricultural legislation Water Conservation Loan Act of 1991. The purpose of the bill is to encourage water conservation measures for agricultural operations by providing low-interest loans to farmers to assist in implementing agricultural water conservation programs. The loan program would be administered by the Agricultural Water Conservation Committee, established as part of the proposal.

2.3.2 Air Quality

Assembly Bill No. 1378, approved in October, 1991, imposes limitations on the burning of rice straw in the Sacramento Valley Air Basin. Known as the Connelly-Areias-Chandler Rice Straw Burning Reduction Act of 1991, this law requires the phasing out of rice straw burning beginning in 1992 by limiting the number of acres which can be burned to 90 percent of the total number of acres planted prior to September 1 and decreasing the allowable percentage each year to 25 percent by 1999. Beginning in the year 2000, conditional rice straw burning permits may also be issued; however, the maximum annual allocation that can be burned is 25 percent of the planted total or 125,000 acres, whichever is less, for the entire basin. Because rice is the predominant single crop produced in Glenn County with over 60,000 acres devoted to the crop annually, this legislation will directly affect current farming operations throughout the county.

Further discussion of air quality issues can be found in the Public Safety Issue Paper, Section 5.0.

2.3.3 Agricultural Chemicals

Pesticide use is under continuous evaluation in California. Based on the data obtained through this safety evaluation process, chemicals are replaced and substituted as necessary. The County does not restrict the use of approved pesticides, however there are some chemicals which are not effective due to climatic conditions. According to the Agricultural Commissioner's office, there are some areas where aerial application is restricted in the county due to the density or type of surrounding land use such as the Willows area. Aerial application of "restricted materials" requires the issuance of a permit from the Glenn County Agricultural Commissioner prior to treatment.

The restrictions urbanization places on agricultural chemical use should be taken into consideration as decisions are made concerning location of future urban uses. Additionally,

conflicts may also arise between chemical applications and livestock, including dairy cattle and poultry. Locational and separation standards should be included in the General Plan which recognize this concern.

2.3.4 Wetlands

A discussion of wetlands regulation is contained in Section 4.1.2 of this paper. Generally, agricultural lands are exempt from regulation as wetlands and are not subject to Section 404 of the Clean Water Act. There are some agricultural lands, particularly rice fields, that have value as wetland habitat. It is possible that winter flooding of rice fields could provide additional habitat for waterfowl while potentially providing an alternative to rice straw burning.

The North American Waterfowl Management Plan is discussed in Section 4.5 of this Paper. Agricultural land enhancement objectives are included within the Central Valley Habitat Joint Venture program of the Management Plan to encourage farming practices which enhance nesting and foraging habitat for waterfowl.

2.4 Provision of Irrigation Water to Urbanizing Areas

Encroachment of urban development, particularly the creation of non-agricultural parcels less than twenty acres in size, can pose problems for irrigation districts whose delivery systems are designed to serve larger agricultural water parcels. Two water purveyors, the Orland-Artois Water District and Orland Unit Water Users Association, have expressed concern over the encroachment of urban uses and change from agricultural to non-agricultural uses on lands within their boundaries. In the case of the Orland-Artois Water District, the creation of parcels less than twenty acres in size causes problems in their service delivery. The delivery system is a closed one and the extension of service to new parcels is very costly. The District, by policy, will not serve parcels less than twenty acres in size.

The Orland Unit Water Users Association has also experienced problems as urban uses encroach upon the agricultural properties within their boundaries. The District's delivery system operates on gravity flow via open ditches. As residential development occurs, with the increase in the number of residents and structures, the ditches can pose safety hazards to children. Because in some cases the existing canals are at a higher elevation than the residences that are constructed, the potential for flooding is also increased, as well as the potential for damage to structures from flood irrigation practices.

The above-described problems are not unique to the provision of irrigation water. They are typical of land use conflicts which occur as urban development encroaches into agricultural areas. Further discussion of irrigation districts, land use conflicts and incompatibilities can be found in the Community Development Issue Paper, Section 2.0.

2.5 Dairy Policies and Standards

Based on total value, dairy products rank second to rice on the list of leading agricultural commodities in Glenn County. There are currently 106 dairies in the county ranging in size from 40 head to 1,200 head, according to the Glenn County Agricultural Commissioner. The dairy

industry in Glenn County has stabilized over the last few years and according to the University of California Extension Office, it is anticipated that the industry will grow. The County has a Dairy Committee organized under the auspices of the U.C. Agricultural Extension Office which has worked to attract dairies to Glenn County. As a part of its General Plan, the County should consider adopting policy supporting the attraction of dairies to Glenn County as a part of its overall economic development effort.

Dairies are permitted uses in the agricultural zones. Performance standards for the construction of new dairies were adopted by the Board of Supervisors in September, 1991, under Ordinance No. 994. These standards include such requirements as: minimum setbacks from roads and from residences, schools and apartments in residentially zoned areas; obtaining encroachment, building and grading permits; and compliance with County, State and federal regulations. If a proposed dairy does not meet the adopted performance standards, a conditional use permit must be secured prior to construction. Animal densities for dairies in agricultural zones are regulated by the State Regional Water Quality Control Board based on waste discharge requirements.

As the number of residences constructed in agricultural areas increases, the potential for land use conflicts between residential and agricultural uses is greater. Animal operations, in particular, generate dust, odor, flies and vector breeding, and noise. In support of the animal industry, the County may wish to consider incorporating policies in the General Plan for siting of animal operations such as dairies and other confined animal raising operations. These policies could guide the placement of dairies, hog farms, poultry facilities, etc., by requiring separation between facilities and residential uses. An additional issue also to be considered is agricultural spraying, as discussed in Section 2.3.3, and potential conflicts with dairy operations.

2.6 Trends and Opportunities in Agriculture

Agricultural production can vary from year to year due to factors such as market conditions, rainfall, and climatic conditions. Crops grown in the county such as rice, alfalfa and sugar beets have remained fairly stable in production over the past few years. Orchard crops such as olives, almonds, and pistachios have increased while acreage devoted to citrus has declined. The sheep industry has declined and is not expected to recover in the near term. The dairy industry has stabilized and is anticipated to increase in the coming years according to the University of California Extension Office. The future attraction of dairies should be viewed as an opportunity to diversify the agricultural base of the county.

Opportunities in agriculture may be altered in Glenn County due to legislative changes in air quality and water regulations. As described in Section 2.3, water conservation measures may change cropping patterns and affect the rice industry. The requirement to reduce rice straw burning as set forth in AB 1378 may also significantly affect the rice industry in Glenn County. The growing recognition of ricelands as important waterfowl habitat may, however, have a positive benefit to the County as other groups work to restore waterfowl populations. Such recognition may guarantee the continuation of adequate water and a regulatory environment in which rice farming can be sustained.

An additional impact on agriculture, particularly the rice industry, is the acquisition of land on which to restore wetlands and other forms of wildlife habitat. As is discussed in more detail under Section 4.0, a number of programs are in place which are actively seeking to purchase lands with the goal of removing them from agricultural use. This effort will ultimately reduce the number of acres in production in Glenn County.

2.7 Sensitive Species

Various State and federal agencies and non-profit groups such as the Nature Conservancy are actively acquiring lands, whether in fee simple or through conservation easements, in Glenn County for wildlife preservation. These acquisitions are discussed in more detail in the Section 4.0 of this Paper. These acquisitions may affect land that is currently in agricultural production. In addition, the use of agricultural chemicals may be restricted, if there is the potential for chemicals to affect endangered plants and animals.

2.8 Agriculture/Soils Opportunities, Constraints and Conclusions

- Agriculture has in the past and will continue in the future to play a significant role in the County's economy. The preservation of the county's agricultural preservation land should be given a high priority; however, it should be recognized that other forms of economic activity will consume some land presently committed to agriculture. Other options available for development will be inadequate to realistically provide for the necessary diversity and growth required in the local economy.
- The importance of the County's agricultural preservation resources should be considered from both an economic and an environmental perspective, emphasizing the role agriculture plays in preserving open space and wildlife habitat. Of particular importance is the value of ricelands to the Pacific Flyway. As this fact receives greater prominence on a statewide level, pressures to remove riceland from production will be reduced. The County should capitalize on this opportunity.
- The General Plan needs to contain a clear statement describing the circumstances under which the County will continue to administer the Williamson Act. Although its value has been questioned, the County should continue to support the Act and to work for continuation and enhancement of the subvention program. The County should set out the criteria for contract execution in the General Plan and apply those criteria consistently.
- Although there has been local discussion concerning the desirability of expanding the compatible use list for Williamson Act contracts, it is likely any such move will be blocked by the State and could provide more ammunition for withdrawal of subvention money. It is also likely that the State will pass legislation giving itself a more direct role in the approval of compatible use lists. Reduction in minimum parcel size has also been discussed. A reduction in parcel size would not appear to be consistent with the purposes of the Act.
- Policy should be included in the General Plan encouraging the dairy industry to consider Glenn County for future expansion. This appears to be a desirable and achievable way to

diversify the local economy. To protect and enhance the dairy industry, consideration should also be given to an expanded set of locational criteria that assure problems do not arise as the number of dairies increases. Locational criteria should be viewed as a protection for the dairy industry and should offer assurance that Glenn County recognizes its importance. As dairies increase in size, it is also important to recognize that their perceived compatibility with surrounding uses, including other agricultural uses, can change. Although the focus is on dairies, it may also be desirable to look at other animal agricultural uses as well.

- Although agricultural preservation lands protection will likely continue to be dealt with primarily through zoning and Williamson Act, language should be included in the General Plan encouraging use of other types of preservation tools, such as in-county transfer of development rights and conservation easements, under unique circumstances.
- Minimum parcel sizes for agricultural preservation zones is always a very difficult issue on which to reach consensus. The minimums enforced by Glenn County appear to be very similar to those enforced by many other agricultural counties. The key question to ask is whether the present standards are discouraging the premature conversion of agricultural lands. Absent intensive pressure to convert, this may not be known. The standard necessary to discourage conversion will also change as development pressures increase. Rather than suggest new standards in the General Plan, it would be preferable to establish a mechanism in the General Plan for systematic review of the present standards, at intervals, to assure that they are still performing as intended.
- The County should examine the need for the AT (Agricultural Transitional) Zone and should be cautious in its application of rural residential zoning. Generally such zoning results in the premature conversion of otherwise viable agricultural land to rural residential environments which can no longer be farmed and are typically too dispersed to be served efficiently by government services.
- Although an enhanced soil survey for Glenn County is desirable and should be supported by the General Plan, the information will not be available for several years. Decisions during the present general plan process will, therefore, have to be based on already existing surveys and reports.
- Urban limit lines should be incorporated into the General Plan establishing clear boundaries around existing and planned future communities during the term of the Plan. These boundaries should be drawn in an effort to protect the best agricultural land and to encourage infill and concentric growth. Such lines create greater certainty in decision making and give property owners a readily recognizable boundary and time frame.

3.0 WATER RESOURCES

Background

Surface flows in Glenn County come primarily from the Sacramento River and Stony Creek. The Sacramento River is the chief source of surface irrigation water in the county. Two major canals divert water from the Sacramento River, bringing surface irrigation water to the farms of Glenn County. The Glenn-Colusa Canal crosses the county starting at the Sacramento River north of Hamilton City and runs southwest. The Tehama-Colusa Canal begins at the Red Bluff diversion dam and runs southward through the county. Stony Creek supports two reservoirs in Glenn County, Stony Gorge and Black Butte Reservoirs. In 1989, 543,900 acre-feet (af) of water was supplied to Glenn County by the Central Valley Project (Sacramento River water) and 75,900 af from Black Butte Reservoir.

Hydroelectric power generating facilities are located at both Stony Gorge and Black Butte Reservoirs. A substantial watershed is located in Glenn County along the easterly slopes of the Coast Range. Most of this watershed is located within the Mendocino National Forest and is under the jurisdiction of the federal government.

The eastern portion of Glenn County overlies the 5,000 square mile Sacramento Valley Groundwater Basin which contains abundant supplies of high quality water to depths of 800 feet. Groundwater pumping for irrigation occurs primarily in the area south and east of Orland and north of Willows. A major groundwater recharge area occurs along Stony Creek between Black Butte Reservoir and the Sacramento River. Groundwater is the primary source of domestic water supply in Glenn County. In 1989, 230,100 af of water was pumped for agricultural use while 8,300 af was utilized for municipal and industrial purposes. An undetermined additional amount was pumped by unmonitored private wells.

Specific Concerns

3.1 Competition For Water Resources

Although Glenn County contains abundant supplies of surface and groundwater, there is intense competition for water on a statewide basis. This has placed water "rich" counties such as Glenn in the spotlight as those areas with water deficiencies seek additional sources of supply. The picture is further complicated by recent requirements to assure that adequate supplies of water are available in rivers and streams, and other natural areas to sustain wildlife, in particular, threatened and endangered species. This statewide demand offers potential for Glenn County to capitalize on this valuable resource by selling water to other areas.

The statewide search for available water will create greater scrutiny of the manner in which Glenn County utilizes its resource. Rice growing, as an example, has come under attack for being wasteful of water resources. Others argue that rice culture is very valuable to wildlife and to withdraw the water would not only harm farming and the local economy but would threaten species that federal and State agencies are working hard to sustain. A recent proposal by the Nature Conservancy suggests that rice fields not only may benefit wildlife but that they could also be used to increase the amount of winter water storage, allowing more water to be available downstream during spring and summer months. Present and future demands to allow more water to remain in the Sacramento River for the benefit of fish and wildlife in the Sacramento-San Joaquin Delta as well as the anadromous fishery in the Sacramento River will impact

withdrawals in Glenn County. This was recently illustrated by the shut down of the Glenn-Colusa Canal intake due to harm to the salmon fishery and subsequent court rulings limiting withdrawals during times critical to survival of threatened winter-run salmon.

Sales of water to other areas may have some temporary economic benefit to individuals, however, it is more likely that the longer term effects on the county will be negative as available supplies are depleted or the thirst elsewhere grows. Such sales will undoubtedly take some land out of production which will have a direct impact on the County's economy as well as other indirect impacts as alternative uses for the land are sought.

Although competition for water may have serious implications for Glenn County, much of the decision-making will occur at State and federal levels and will be difficult to influence from the local level, particularly when the State's population base is primarily in areas with water deficiencies. The General Plan needs to propose actions which can assist in protecting this local resource from unfair exploitation and removal, including local priorities on water use. The County should also look to accommodations with environmental groups that will permit water to be retained locally for the benefit of wildlife rather than being shipped to more distant points.

3.2 Changes in State and Federal Water Policy, Legislation and Regulations

Assembly Bill 2090, sponsored by Assemblymen Katz and Filante, and now pending in the State Assembly, would facilitate transfers of ground and surface water to deal with water shortages. The legislation is intended to promote water transfer efforts such as those handled by the State's Emergency Water Bank which functioned during the past year. Under the water bank concept, farmers and districts sell water to a water bank, which then resells the commodity. The Bank resold about 800,000 acre feet of water last year. It was recently reported at a meeting of the Assembly Committee of Water, Parks and Wildlife that about half of the above sales caused agricultural fields to remain fallow.

To deal with water availability on a statewide level, Governor Wilson has created a Water Task Force which is expected to deliver an outline for a State water policy. The policy will deal with future allocation of water, including freeing more water for the benefit of fish and wildlife.

State Senate President Pro Tem David Roberti has recently proposed statewide water policy reform, including a State takeover of the Central Valley Project (CVP). He has suggested priorities that would place protection of the Delta at the top and has also proposed that groundwater basins be regulated. Primary to the interest in taking over the CVP is to reprice water to eliminate subsidies to agriculture. Since Glenn County receives much of its water from the CVP, changes in water pricing structure will have serious economic implications.

At the federal level, legislation is pending before Congress that would make major changes in the CVP. Among those changes is a provision that would permit CVP participants to sell water previously committed to agriculture for non-agricultural uses. Although major changes in the

CVP are opposed by the Bush administration, U.S. Interior Secretary Lujan recently reported that the administration supports changes allowing sales for non-agricultural purposes.

As was noted above, competition for water in California is intense. The County must devote the necessary resources to follow the myriad of proposals working their way through the legislative and executive process at the State and federal level in order to assure that its interests are recognized and protected.

3.2.1 Restriction of Transfer/Export of Water

Concern has been expressed at the local level over the exporting of groundwater. One reason for concern is that several of the irrigation and water districts in the county have service boundaries which extend beyond Glenn County. The Board of Supervisors, in the past, has requested assurance from districts who have drilled new wells in the county that water pumped from these wells will be used within the county and not be exported to other areas within the district. Although a building permit has been the only County approval required for drilling a new well, the County has recently adopted an ordinance which requires issuance of a permit to export water from the county. The permit process is similar to a special or conditional use permit filed with the Planning Department and approved by the Board of Supervisors. No permit applications have been filed since adoption of the ordinance, however.

In March of 1991, Senator Michael Thompson introduced Senate Bill 867, which proposes the creation of the Glenn County Groundwater Management District. If approved, exporting of any water from the district would be prohibited unless an export permit has been issued pursuant to specified procedures. The installation or operation of well fields would also be restricted. The bill is currently before the Senate Housing and Urban Affairs Committee for consideration. The goal of the legislation is to protect the County's groundwater resource and prevent overdrafting. A County committee has also been formed to support the legislation.

3.2.2 Water Mining and Sales

Water mining or the excessive withdrawal of groundwater beyond recharge capability is not a problem in Glenn County at the present time. Although groundwater is the principal source for urban use, surface water is the principal source for agriculture. The abundance and quality of groundwater in Glenn County is a valuable resource. As has been previously noted in this Issue Paper, there may be potential for exporting and sale of groundwater. However, the short term economic advantages may not balance against the long term impacts and the potential for water mining to occur.

The establishment of the Glenn County Groundwater Management District proposed under Senate Bill 867, discussed above, is one mechanism to monitor groundwater stability. It should be noted, however, that exporting of water is not the only potential reason for water mining. If the surface water supply is reduced or eliminated to the point that agricultural operations have to rely on groundwater, such mining could result. In addition, a prolonged drought such as that now being experienced can lead to temporary overdraft and potential long-term damage to the aquifer.

3.2.3 Long-term Water Delivery Contracts

Both the Glenn-Colusa and Tehama-Colusa canals provide Central Valley Project water. Districts in Glenn County which receive water from the Tehama-Colusa Canal include the Orland-Artois Water District, the Kanawha Water District, Glide Water District and Glenn-Colusa Irrigation District. Water rights were settled in the mid 1960's and long term contracts were entered between the Bureau of Reclamation and the districts. With the long term contracts in place, the concern over water delivery is related to each district's allotment of water. Two years ago, each district received only 50 percent of its total water rights. Last year that allocation was reduced to 25 percent. Continued reduced allocations may force these districts to seek alternative sources of water.

3.3 Watershed Protection

Although much of the water utilized in Glenn County rises outside the county, the county does contain a substantial watershed supplying locally important creeks, especially Stony Creek on which Stony Gorge and Black Butte Reservoirs are located. Much of this watershed is under the jurisdiction of Mendocino National Forest. Its primary uses are for agriculture and hydroelectric power production. Section 5.3 under Timber Resources discusses issues which arise when watersheds are disturbed. Standards and policies are needed in the General Plan to assure that watersheds are properly protected. This will require close coordination with the National Forest to assure that actions are not taken which may be detrimental to the watershed.

3.4 Reservoir Siltation

Siltation is a general problem experienced in reservoirs as well as with rivers, streams, creeks and canals, resulting in loss of water holding and moving capacity. During reservoir/dam design, allowances are made for projected siltation.

No current data on the amount of siltation that has occurred in Stony Gorge Reservoir is available from the Bureau of Reclamation. The Army Corps of Engineers has, however, revised the capacity figures for Black Butte Reservoir where substantial siltation has occurred. The gross pool capacity at Black Butte Reservoir was 160,000 af in 1966. The Army Corps found a 13,000 af reduction in capacity during a subsequent fifteen year period. This is 7 to 10 times greater than was estimated at the time the reservoir was constructed. During the general plan process, this accelerated reservoir siltation should be acknowledged as an issue which could have some impact on future water delivery and hydroelectric power generation.

3.5 Impact of Potential Increased Hydroelectric Power Generation

Hydroelectric power potential is discussed in some detail in Section 6.2.1 of this Working Paper. The Energy Facility Siting Working Paper prepared by Crawford, Multari & Starr notes that hydroelectric facilities can impact water resources by affecting water turbidity (the amount of sediment within the water), oxygen content, streamflows and groundwater recharge. If additional facilities are proposed in Glenn County, as has been suggested, the effects of such developments on groundwater recharge and streamflows must be carefully documented to assure that no unreasonable impacts on water resources occur. As is noted under Section 3.7.1 of this Paper, critical groundwater recharge areas exist in Glenn County. Reduced streamflows

resulting from additional reservoir construction may have an adverse impact that is not offset by new reservoir capacity.

3.6 Impact of Urbanization on Irrigation/Water Districts

Districts established to deliver irrigation water can be adversely affected by urbanization. Two water purveyors in Glenn County currently experience such problems: Orland-Artois Water District and Orland Unit Water Users Association. Both were discussed previously under Section 2.4 of this Paper.

From a water resource perspective, it is important to recognize that a substantial investment has been made in existing water delivery infrastructure within irrigation and water districts. As agricultural areas urbanize, the utility of that infrastructure is lost, resulting in a loss of water to agriculture or a need to recreate the systems elsewhere, at considerable cost. The value of such infrastructure needs to be factored into planning decisions. To give some dimension to the issue, the Orland-Artois Water District was asked to estimate the value of its present system. Their estimate identifies facilities worth approximately \$30.5 million in 1991 dollars. In addition, it is important to assure that development patterns do not make delivery of agricultural water to users impractical or cost prohibitive. As growth occurs, the County should endeavor to assure that its land use decisions do not prematurely disrupt delivery of agricultural water.

3.7 Groundwater Management

Historically in California, groundwater basins have gone unmanaged. Typically, no limits on the numbers of wells drilled or the amount of water withdrawn have been established. In recent times, as competition for sources of water has intensified, this position has become increasingly untenable. Locally in Glenn County, proposals have been put forth to export groundwater out-of-county. Such activity has caused concern due to the potential to overdraft the local groundwater basin, increase the cost of water, force the deepening of existing wells and remove land from production.

As discussed under Section 3.2.1, Senate Bill 867 has been introduced in the State Legislature to deal with the issue of groundwater management in Glenn County. The legislation would create the Glenn County Groundwater Management District. If enacted, it would prohibit the exporting of any water from the district unless the exporter has obtained an export permit from the district.

It would appear to be in Glenn County's interest to support this or similar legislation. The alternative may be regional groundwater management. Glenn County should establish policy in its General Plan that will protect its groundwater resources. This may be best accomplished through support for the creation of a local groundwater management district.

3.7.1 Areas Required For Recharge Of Groundwater Basins

Certain areas in California's Central Valley are critical to continued groundwater recharge. Typically such areas are located along major streamcourses with sustained flow and coarse gravel deposits. The State Department of Water Resources Bulletin 118-6 Evaluation of Groundwater Resources: Sacramento Valley reports that 20.7 percent of the natural recharge in

the Sacramento Valley occurs in the Stony Creek area. Such recharge comes from both stream percolation and deep percolation of precipitation. Clearly the Stony Creek area is critical to groundwater recharge. Not only is it fully one-fifth of the total, it is also the largest single source of recharge in the Sacramento Valley. Other groundwater recharge areas include the area along the Sacramento River and other locations as shown on Figure 3-1.

Glenn County should discourage the overcovering of soils necessary to groundwater recharge. It is apparent from an examination of the map that a conflict may already exist in the Orland and Hamilton City areas about which little can be done. Steps should be taken to limit the future overcovering of recharge areas and to direct intensive development and, in particular, uses with the potential to pollute the aquifer away from such areas.

3.8 Drought Related Issues

The drought conditions over the past few years have not impacted Glenn County as severely as they have other regions of the State. Even with the reduction in available surface water due to government cutbacks in water allocations as discussed in Section 3.2.1, agricultural operations have been sustained in the county. If further reductions in surface water supplies are experienced, however, alternative water sources may need to be developed. The County is fortunate to have an abundant groundwater supply.

If the drought continues, the County may feel greater pressure to export water to other regions. Refer to Sections 3.2.1 and 3.2.2 for discussion of water transport/export and mining. In addition, the drought may cause additional regulatory and legal actions to force cutbacks in agricultural supply to sustain flows in streams and rivers for the benefit of fish and wildlife.

3.9 Water Resources Opportunities, Constraints and Conclusions

- Due to Glenn County's abundant groundwater resource, the County finds itself in a somewhat unique position as compared to most of California. The County must thoughtfully decide how it will manage this resource and how best to utilize it as it looks for economic development opportunities. To allow unregulated exportation of the resource would appear to be short-sighted and may ultimately backfire in an ever more thirsty State. Glenn County should take steps in its General Plan to support groundwater management as a concept and to further efforts to manage the resource at the local level.
- Actions at the State and federal level to deal with water shortages elsewhere may have an adverse impact on Glenn County. Repricing of CVP water as suggested by a member of the State Legislature could have a devastating effect. Reserving more water for fish and wildlife is and will continue to have a detrimental impact on agriculture. The County should, however, look to ways to benefit from efforts to reserve water in the county for wildlife. Such efforts may well result in side benefits for economic development and for agriculture.
- Local priorities should be established for water use and placed in the General Plan. Such an effort could benefit those seeking to establish greater local control over water resources, including local oversight of exportation.

- If surface supplies are further disrupted, Glenn County may have to rely increasingly on groundwater. Such reliance will increase the cost of water and may be disruptive to the agricultural economy and continued production of certain crops, including removal of land from production. Potential disruption includes the sale of surface water to other regions of the State.
- Although the past drought years have not dramatically impacted Glenn County, there is a potential for drought conditions or water diversions to impact the County during the life of the Plan. The General Plan should include policies which encourage water conservation programs for both agricultural and urban users.
- If land is removed from production due to a shortage of water, land owners will look to alternative use for the land. This could include other forms of development which are incompatible with agricultural neighbors or are costly for the County to service. Such areas could be devoted to hunting preserves, however, lack of water could diminish their value.
- Due to the myriad of actions occurring at the State and federal level impacting water resources, the County needs to assign specific staff to monitor these actions and to report on a routine basis to County decision makers.
- Reservoir siltation will have some impact on future water storage capacity in the county. This fact needs to be acknowledged, along with creation of programs to gain better information and formulate a plan of action.
- Groundwater recharge areas must be protected from overcovering and potential contaminants. Large areas of the county appear to be impacted, primarily along the present and historic fan of Stony Creek. Specific policy needs to be included in the Conservation Element outlining the County's approach to protection of this resource, including limitations on certain types of development.
- The General Plan needs to recognize the value of irrigation system infrastructure and to assure that new development does not prematurely reduce the utility of such systems. This includes removal of land from production which is served by systems and impacts on remaining users' ability to acquire water.

4.0 BIOLOGICAL RESOURCES

Background

Like many counties in California, Glenn County has an extremely diverse plant and animal population. This is attributable to the wide range of elevation and geography within the county. Six major vegetation associations are present in Glenn County. They are: Blue Oak-Digger Pine Woodland, Coast Range Montane Forest, Chamise Chaparral and Northern Mixed Chaparral, Grasslands, Riparian Forest and Wetlands. Much of the Blue Oak-Digger Pine Woodland

remains intact as does the Coast Range Montane Forest and the Chaparral association. Grasslands, Riparian Forest and Wetlands associations have, however, been severely reduced by humans.

Although certain endangered, candidate and threatened species of lesser known plants and animals are present in Glenn County, species of greatest importance to the general plan process are deer and waterfowl due to the large areas they occupy. Glenn County contains three major deer herds which include both resident and migratory deer, with the migratory deer wintering in the lower elevations of Glenn County and returning in spring to the higher elevations of the Coast Range. Waterfowl concentrate around the Sacramento National Wildlife Refuge in southern Glenn County which provides winter migratory habitat for over one million birds. Among waterfowl visiting the area are several sensitive species including the Aleutian Canada goose. Waterfowl are closely associated with two vegetation associations, Riparian and Wetland, which are limited in distribution.

Fisheries are also important in Glenn County, focused primarily on the Sacramento River, and Black Butte and Stony Gorge Reservoirs. Trout are found in the higher elevations of the Coast Range within the Mendocino National Forest and warm water fisheries are present in some of the perennial streams and canals on the Valley floor.

Specific Concerns

4.1 Areas Required for the Preservation of Plant and Animal Life

As a part of the County's Open Space Element, it is necessary to address the subject of areas which are required for the preservation of plant and animal life. This subject has received ever increasing prominence as the State's biological resources continue to dwindle. Much of the focus at the State, federal and local level has been on the preservation of habitat for the benefit of a single species, although it has long been recognized that preservation of habitat for one species often aids in the preservation of other species inhabiting the same area. Creating larger areas containing greater bio-diversity is now viewed as the preferred approach to preservation of species. If significant areas can be retained in open space which benefit migrating deer or wintering waterfowl, then many lesser known species will benefit as well.

As Glenn County grows it is necessary to examine the impact development may have on wildlife. If unacceptable impacts are predicted to occur, mitigation or compensation will be required for those impacts. It is important to establish a program within the General Plan to guide how those decisions are made. The General Plan should first identify areas where development should not occur because of the adverse impact development may have on biological resources. The General Plan should also identify compatible uses within such areas so property owners can know with some certainty that which the County will permit. In other areas where development may occur, the procedures to be followed to protect biological resources and the form of compensation or mitigation required should be established in the Plan. It will always be difficult, however, to know with certainty what will be necessary since State and federal agencies typically play a significant role, much of which is outside the local review process.

As has been suggested, a particular concern is the protection of deer wintering areas and migration routes from incompatible development and the protection and buffering of waterfowl habitat areas, particularly the Sacramento National Wildlife Refuge. Riparian communities along the Sacramento River also require protection in order to preserve threatened species and to protect the character of the present anadromous and warm water fishery. Other unique landforms, such as vernal pools and the species inhabiting them, must also be afforded protection. A review of available information indicates that Glenn County is relatively free of vernal pools. Limited occurrences, however, have been reported by Robert F. Holland, The Geographic and Edaphic Distribution Of Vernal Pools In The Great Central Valley, California, in the area between Orland and Black Butte Reservoir.

4.1.1 Important Biological Resource Areas

The Environmental Setting Technical Paper identifies 12 important biological areas in Glenn County which require special attention as a part of the general plan development process. Six of the areas (Llano Seco, Oxbow Waterfowl area, Oxbow Heron Rookery, Princeton Riparian Woodland, Sacramento River Wildlife Area and Sacramento River Oxbow Preserve) are associated with the Sacramento River and are intended to protect the unique riparian forest, marsh and floodplain bordering the Sacramento River. Two of the areas (St. Johns Mountain and Sheetiron Mountain) are within the Mendocino National Forest and are under the jurisdiction of the National Forest Service. The remaining areas are the Sacramento National Wildlife Refuge, Black Butte and Stony Gorge Reservoirs, and Orland Buttes.

The State of California holds ownership to the bed of the Sacramento River. These lands are held by the State for the benefit of all the people of the State of California, for purposes of commerce, navigation, fisheries, recreation, habitat preservation, and open space. Responsibility for protection of the State's interests lies with the State Lands Commission (SLC). In a letter dated July 12, 1991, the SLC has advised the County that it has a particular interest in the protection of Sacramento River riparian and fisheries habitat. It has further advised that a permit may be required from the SLC for proposed projects that are within or adjacent to the River.

In determining the impact a proposed development may have on State interests, the SLC utilizes a "Significant Lands Inventory" of State owned lands. In addition the SLC has advised that the 1986 Sacramento River Marina Carrying Capacity Study will be utilized. The latter study identified the following potential impacts on riparian habitat from development activities:

- Removal of vegetation, grading and construction
- Compaction of roots of remaining vegetation
- Disruption of banks and placement of bank protection
- Alteration or removal of understory plants
- Fragmentation of migratory corridors for terrestrial wildlife
- Introduction of human activities, noise and night lighting
- Isolation, reduction or destruction of threatened and rare species and their habitats
- Disruption of shoreline and instream fish habitats
- Disruption from activities of adjacent developments

The study also makes the following recommendations which are applicable along the Sacramento River:

- Development should avoid environmentally sensitive areas to the maximum extent; such areas include habitat for threatened and endangered species and riparian vegetation.
- Development proposals should incorporate all feasible modifications and construction techniques to eliminate or minimize adverse impacts on ecological resources of land and water.
- Replacement of riparian vegetation should be planned by experts familiar with native riparian plants and their requirements, and monitoring programs should be established to ensure the satisfactory completion and maintenance of revegetation programs.
- The overall goal of mitigation should be that post project habitat productivity be at least equal to pre-project habitat productivity. Determinations of habitat productivity should be made by a panel of qualified biologists using habitat analysis methods acceptable to the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

It is apparent that the Sacramento River must be viewed in its entirety as an important biological resource area and must be given careful attention during the planning process. The SLC has placed Sacramento River lands in a "Limited Use" category which is defined as those lands on which one or more closely related dominant significant environmental values is present. Specific policies are needed establishing the form and character of development, if any, to be permitted along the River. Further, the County should establish the manner in which it wishes to interact with the SLC when considering development proposals.

The Mendocino National Forest contains a number of forested areas, including St. Johns Mountain and Sheetiron Mountain, valued for their flora and wildlife. The recent controversy over the northern spotted owl is indicative of the Forest's value. Generally, the flora and fauna of the Forest are beyond the jurisdiction of the County. There are, however, a number of private inholdings surrounded by the Forest in which activities are subject to local control. Within such areas, it will be important to recognize the biological value such lands may have and to coordinate policy and decision making with the Forest Service.

Columbia blacktail deer frequent most parts of the National Forest. Although most of the herds both winter and summer within the Forest, there is an area of important deer winter range west of Black Butte Reservoir on private land. Resident deer also occur outside the Forest along Stony Creek, the Sacramento River, in the lower foothills and in the Butte Sink.

The Sacramento National Wildlife Refuge contains significant remnants of the once expansive Sacramento Valley wetlands and is utilized by major concentrations of Pacific Flyway waterfowl each year. Its protection is of paramount importance to federal and State agencies as well as

private conservation groups, including pro-hunting organizations. Associated with the Refuge are nearby private duck clubs and ricelands frequented by waterfowl. The General Plan should establish clear policy protecting this very valuable resource area from encroachment by incompatible land uses while providing for the continuation of traditional agricultural and hunting activities.

The two reservoirs, Stony Gorge and Black Butte, on Stony Creek have special value primarily because of the well-established warm water fishery which is present. The General Plan should establish policy protecting the fishery and assuring that activities associated with the reservoirs are not harmful to the fishery and other wildlife.

Orland Buttes are a local landmark situated near Black Butte Reservoir. The Buttes contain areas of Grassland and Blue Oak-Digger Pine vegetation associations. Their protection from incompatible development could create a substantial biological preserve potentially containing vernal pools and sensitive species while also maintaining a local visual resource.

An additional issue impacting Glenn County is the statewide interest in the preservation and regeneration of oak woodlands. The foothill region contains substantial stands of oak forest. A cursory examination reveals, however, that most trees are mature and little regeneration is occurring. Many theories have been put forward to explain the lack of large numbers of young trees, including the activity of cattle, birds and squirrels as well as climatic and hydrological changes. The County should prescribe through the General Plan the role it wishes to play in the protection of oaks and other trees.

4.1.2 Wetlands/Riparian Habitat

As noted previously, wetlands and riparian areas have been greatly reduced compared to historic occurrences. Their elimination has been in large part due to the introduction of agriculture and modern water management practices. Often overlooked is the fact that such areas were deliberately eliminated to control the spread of mosquito-borne disease.

Wetlands have been found to have unique value to many species of wildlife. Such lands can also play an important role in groundwater recharge, reducing floodflows and allowing harmful sediments to filter out of waters prior to their downstream discharge. As a consequence, the federal government has declared that there should be no net loss of wetlands in the United States.

The federal government's wetlands policy is implemented in conjunction with development projects primarily through Section 404 of the 1982 Clean Water Act which prohibits the filling or dredging of lands defined as wetlands. The Army Corps of Engineers has been assigned the responsibility for making jurisdictional determinations (e.g. what constitutes a wetland) and may issue 404 permits for alteration of jurisdictional wetlands, with agreed upon mitigation.

Based on the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands, defining jurisdictional wetlands incorporates three criteria: the presence of so-called hydric soils -meaning mucky or peat-based soils that thrive in wet areas; the presence of plants found on the

federal list of plants that thrive in wet areas; and the presence of water within 18 inches of the surface of the ground for at least 7 consecutive days during the year. A rule change presently under consideration could alter the latter criteria to require lands to be flooded for at least 15 days with soil saturation to 21 inches. This proposed change has however, generated substantial controversy and its outcome is uncertain.

Those wishing to encroach on apparent wetlands must apply to the Army Corps of Engineers for a jurisdictional determination. This typically involves detailed field surveys by qualified wetlands biologists who then present their findings to the Army Corps. If it is determined that jurisdictional wetlands exist, the project must first be examined to determine if such lands can be avoided. If avoidance is not possible, onsite or offsite mitigation must be provided. This can be in the form of wetlands creation or enhancement of existing wetlands. If a wetlands banking system has been created, it may be possible to mitigate through monetary contributions to such a system which will in turn invest in creation or enhancement of wetlands. Avoidance or onsite mitigation are the preferred approaches. Mitigation is typically required at a ratio greater than 1:1, with habitat value playing a significant role in such determinations. It is also commonplace to require those displacing wetlands to provide for the long term care and maintenance of mitigation lands.

Additional programs at the federal level that provide incentives for preservation of wetlands include provisions in the Congressional farm bill and the federal Water Bank Program. Another program at the federal level is a new Wetlands Reserve Program to be administered by the Soil Conservation Service (SCS). The goal of the program will be to return marginal crop land to wetlands. To accomplish this, the SCS will enter 10 to 30 year contracts with property owners through which the owners will receive payments for retiring the land and restoring wetlands. Guidelines have not yet been promulgated but it is anticipated that California will be one of the participating states and that money will be available during 1992.

Others involved in identification and protection of wetlands include the U.S. Fish and Wildlife Service and the State Department of Fish and Game. In addition to the more formal 404 process, these two wildlife agencies may intervene to protect wetlands through the federal and State endangered species acts, respectively, if endangered species are present, through the California Environmental Quality Act (CEQA), and through the auspices of the federal Migratory Bird Treaty Act.

Riparian habitat exists along the Sacramento River and certain stream courses such as Stony Creek. Historically, bands of riparian vegetation extended four to five miles inland from the banks of the Sacramento River. According to the Upper Sacramento River Fisheries and Riparian Habitat Management Plan, agriculture, firewood cutting, channelization, dam and levee construction, bank protection and stream flow regulation have all led to its reduction. What remains is generally along the immediate banks of the River. It was noted under Section 4.1.1 that the State Lands Commission regulates vegetation removal along the Sacramento River. Along Stony Creek, instream mining of aggregate has had an adverse impact on riparian vegetation.

The Upper Sacramento River Fisheries and Riparian Habitat Management Plan was completed by the State Department of Water Resources in 1989 in response to legislative mandate. Its purpose is to protect, restore, and enhance the fish and riparian habitat and associated wildlife of the upper Sacramento River. The document contains a Riparian Habitat Restoration Plan which states the following about stretches of the River in Glenn County:

The most significant area of remaining riparian habitat, as well as the most feasible location for reestablishing a functional Sacramento River riparian ecosystem, is in the Chico Landing (near Hamilton City) to Red Bluff reach... Within the Butte Basin reach, (Colusa to Chico Landing), opportunities for retaining an active meanderbelt are limited. The Sacramento River Flood Control Project will effectively freeze much of the remaining unveeved reach in place. Nevertheless, there are significant habitats adjacent to the River that are in need of long-term protection...

The Plan sets out two goals: preservation of remaining riparian habitat and reestablishment of a continuous riparian ecosystem along the River. To accomplish these goals, the document recommends a Sacramento River Riparian Conservation Plan to guide the restoration and preservation of riparian habitat and which also has the support and cooperation of landowners and local governments. It is suggested that once the Plan has been developed, legislation will be needed to create, implement and manage a Sacramento River Riparian Conservation Area. Several methods are proposed that may enable its establishment, including direct purchase of lands, conservation easements and transfer of development rights. Also suggested are tax incentives for retention of riparian areas and "set-aside" agreements where payments are made to landowners in return for retaining riparian areas.

The Plan requests Congress and the State Legislature to designate boundaries for a Riparian Conservation Area and to set guidelines for establishing a board of directors. Means of funding the actions are discussed, including use of bond act money. It is apparent, however, that new sources of funding will be needed.

Along other watercourses, decisions may be made by local special districts, the County and landowners. Work within a stream course, such as Stony Creek, requires a Streambed Alteration Permit from the State Department of Fish and Game. If endangered species are present, vegetation removal may involve consultation with Fish and Game or the U.S. Fish and Wildlife Service. If the streamcourse is within a designated floodway, a permit may be required from the local flood control district or the State Reclamation Board.

The above described Upper Sacramento River Fisheries and Riparian Habitat Management Plan also contains a proposed program for tributary riparian areas. The program contains many features in common with that for the Sacramento River although emphasis is placed on locally implemented programs such as Williamson Act. It is suggested that riparian zone management plans be included as a part of General Plan Conservation and Open Space elements.

Other Plan recommendations for tributaries include encouragement of the use of alternatives to rock riprap as bank protection techniques, the reconstruction of U.S. Army Corps of Engineers-

designed flood control projects with setback levees to allow for both the adequate passage of floodwater and reestablishment of the riparian community, and other changes in Corps operation and maintenance procedures. The Plan also recommends "Streamside-Riparian Zoning" which would have as a priority retention of riparian habitat. The Plan notes that in the writers' judgement, of the six upper Sacramento Valley counties, only Butte and Shasta Counties regulate land uses well enough to effectively conserve riparian vegetation.

At present the lower stretches of Stony Creek as well as some areas bordering the Sacramento River are zoned E-M, Extractive Industrial Zone. The zone permits a variety of surface mining, quarrying, dredging and material processing. Surface mining has had a significant impact on riparian vegetation and present County practices may not afford adequate protection to this resource. Consideration should be given to removal of this designation or modification of the Zoning Ordinance text to provide specific standards and procedures governing such activity. Consideration should also be given to Streamside-Riparian Zoning as recommended by the Riparian Habitat Management Plan.

Due to the strong interest at the State and federal level in preservation of wetland and riparian areas, it is important that the General Plan establish clear policy on the subject of agency coordination and that areas targeted for preservation be identified in the General Plan. The various recommendations contained in the Fisheries and Riparian Habitat Management Plan should also be recognized in the General Plan.

4.2 Sensitive Species

Federal and State endangered species laws require that threatened and endangered species habitat be protected during the development process or be compensated for in some predetermined fashion. As noted, certain waterfowl visiting the area have special status. In addition, there are 26 other species, including northern spotted owl, which have State or federal status and which are known to occur within Glenn County.

Wherever lands have been undisturbed for a period of time, it is likely that a biological survey will be necessary prior to issuance of permits for development in order to determine if sensitive species may be present. If certain sensitive species are present and a "take" may occur, a habitat conservation plan pursuant to the Federal Endangered Species Act may be required. A "take" includes destruction of habitat and is defined much more broadly than simply the killing or direct destruction of an endangered species. If certain species are known to occur over a wide area, it may be desirable for the County or some other interested group to take the lead in creating an areawide habitat conservation plan, relieving individual property owners of the obligation and assuring that issues are addressed in a more comprehensive fashion. Habitat conservation plans, when done for a larger area, may also identify lands for eventual purchase and preservation. Such proposed preserves could serve as "mitigation sites" when development is proposed elsewhere which requires mitigation of biological impacts.

Species of special concern in Glenn County which the General Plan should specifically address are Swainson's hawk, yellow-billed cuckoo, bank swallow, Valley elderberry beetle and California hibiscus along the Sacramento River, Aleutian Canada goose in the vicinity of

Sacramento National Wildlife Refuge, spotted owl in the forest areas, bald eagle in the foothill region, especially around the two reservoirs, and several endangered plants occurring in the foothills and along riparian corridors.

Because of the necessity to protect candidate, threatened and endangered plant and animal species, constraints can be placed on otherwise developable land and, at times, existing activities. As noted above, a habitat conservation plan may be required prior to development where it is determined that a take of certain species may occur. The General Plan should contain policy describing the County's approach to sensitive species issues, recognizing that State and federal agencies can and do act independently of the County. If certain areas are of particular importance to sensitive species, those areas should be identified in the Plan and policy formulated to assure their retention and to avoid conflicts with federal and State statutes.

4.3 Maintenance/Enhancement of Fisheries

The Upper Sacramento River Fisheries and Riparian Habitat Management Plan includes a number of recommendations for maintaining and enhancing fisheries in the Sacramento River. Most recommendations deal with issues beyond the boundaries of Glenn County, including modifications to Red Bluff Diversion Dam and modifications at Shasta Dam. Some recommendations, however, have direct impact on Glenn County, including a recommendation concerning the improvement of fish screen efficiency at the Glenn-Colusa Irrigation District Diversion near Hamilton City. An injunction was issued on January 9, 1992 that prohibits this facility from pumping water for a four and one-half month period each year. If the court order is not overturned, water cannot be pumped from July 15th to November 30th.

The Fisheries Plan has as its purpose the restoration and enhancement of the salmon and steelhead fisheries in the upper Sacramento River. The Plan indicates that salmon and steelhead runs in the River have declined substantially in recent years, and that the decline will continue unless large-scale restoration actions are undertaken quickly. The Plan describes the situation as follows:

The Sacramento River produces four distinct races of chinook salmon: fall, late fall, winter, and spring runs. All races have declined substantially. The fall run, which accounts for nearly 90 percent of the total ocean catch is presently at about 50 percent of historic numbers; the late fall run has declined a similar amount; the winter run has declined nearly 98 percent (since reliable counts became available at Red Bluff Diversion Dam in 1966) and is almost a threatened species; and the wild strain of spring run numbers only a few hundred and presently exists in only two or three tributary streams. Without immediate action, this race may soon become extinct. Steelhead populations have declined from about 18,000 in 1966 to less than 2,000 in 1988.

In the two years since the Plan was written, conditions, driven in part by the California drought, have worsened with the winter run salmon now being listed as federal threatened and State endangered.

In addition to changes at the Glenn-Colusa Irrigation District Diversion, the Plan recommends that unscreened diversions affecting fisheries be eliminated and that certain improvements be made to Butte Creek to facilitate return of the anadromous fishery to that stream. Although not discussed in the Plan, there is local interest in returning conditions on Stony Creek to a point where a healthy salmon run exists. This will require a close review of gravel extraction activities to assess adverse impacts resulting from such operations.

It will be important in the general plan process to weigh the impacts of development on the Sacramento River salmon and steelhead fishery. It is obvious that diversions and the manner in which they are undertaken is a key issue. It is also a very sensitive one if retrofitting of existing facilities is to be undertaken, since a determination as to who is to pay must be made.

4.3.1 Conflicts With Irrigation Practices

Irrigation practices may conflict with fisheries maintenance in two ways. First is the conflict between the need for fish transportation flows and the need to irrigate rice fields and other crops. Associated with this is a similar conflict in the fall when duck clubs are flooded. A second concern has to do with the quality of water returned to the River by agriculture. The Central Valley Regional Quality Control Board requires the holding of drain water on rice fields to control the levels of herbicides returned to the River. This deprives the River and other streams of important flows during certain periods, yet to return the water too quickly could be harmful to aquatic life. Additional study of the problem needs to be undertaken to determine if there are changes in practice that would allow fisheries to benefit without harming other parties.

4.4 Hunting

Glenn County is noted for its hunting opportunities. Of particular importance are deer, waterfowl and upland game. Important among upland game is pheasant. Although an exotic species, pheasant have naturalized in many agricultural areas of California and are actively managed by the Department of Fish and Game and others. Hunting activities are carried out on private lands, the Sacramento National Wildlife Refuge and the National Forest. Hunting associations have been formed which permit hunters access to private lands and various other forms of hunting for pay exist, including duck clubs and hunting on the Wildlife Refuge. The State Department of Fish and Game and U.S. Fish and Wildlife Service regulate hunting and have encouraged such activity as an integral part of game management and as a source of revenue. Hunting has traditionally been viewed by wildlife biologists as an opportunity to harvest surplus game that would otherwise be lost to other forms of mortality. As game numbers have declined, many have questioned the wisdom of past practices. Most agree, however, that the most significant impact on game is brought about through loss of suitable habitat.

In recent years the number of hunters has fallen as California has become a more urbanized state and as the availability of game has declined in many places. A formidable anti-hunting lobby has arisen as those from more urban areas lose their association with traditional lifestyles. Although the anti-hunting lobby is a minority, those who hunt are also a minority. The continuation of hunting and the lifestyle and economic benefits it brings to Glenn County are dependent on public opinion and on maintenance of a natural environment conducive to production of adequate supplies of game.

Maintenance of a natural environment suitable for game is, to a degree, dependent on retention of wetlands, riparian areas and other natural features discussed previously. Pheasant are dependent on an undisturbed nesting period between April 1 and July 1 of each year. Unfortunately this period is one of high activity for agriculture. The Agricultural Stabilization and Conservation Service has outlined a program for reducing pheasant mortality during this period. The General Plan can enhance hunting opportunities in Glenn County by supporting retention of natural areas and agricultural practices which protect game.

It may be desirable to establish certain standards in the General Plan for hunting camps, duck clubs, etc. to assure that health and safety problems do not arise in an ever more densely settled world. It may also be useful to encourage, through policy, land owner involvement in managed pay-to-hunt arrangements or the sale of hunting rights independent of the underlying fee title. This would allow a landowner to reap an economic return while continuing to hold title to the land, and at the same time permit a controlled and managed hunting environment to be created. The Department of Fish and Game administers a "Ranch for Wildlife" program which was encouraged by the County's existing Conservation Element. The County should continue its endorsement of such activities.

4.5 State, Federal and Nonprofit Refuge and Habitat Acquisition Plans

Considerable discussion has occurred concerning actions by various State and federal agencies and non-profit groups to purchase lands in Glenn County for wildlife protection. Perhaps the most ambitious undertaking is the North Central Valley Wildlife Management Area described in the Environmental Setting Technical Paper. This Wildlife Management Area is to be undertaken in furtherance of the North American Waterfowl Management Plan signed by the United States and Canada in 1986. "This Plan seeks to restore and maintain the diversity, distribution and abundance of waterfowl that occurred during 1970 to 1979..." The Central Valley is one of the areas receiving priority planning and funding through an organization known as the Central Valley Joint Venture. The Joint Venture is composed of public and private organizations which are pooling resources to plan for and purchase waterfowl habitat.

The Management Area spans eleven counties and involves a combination of fee title and conservation easement acquisitions. In Glenn County, no fee title land acquisitions are proposed; however, purchase of approximately 7,000 acres of conservation easements is proposed by the U.S. Fish and Wildlife Service on land north and east of the Sacramento National Wildlife Refuge. The easements would allow the Fish and Wildlife Service to jointly manage the property for waterfowl use. Both development rights and farming rights may be purchased. The underlying fee owner would continue to have the primary interest in the property. In the case where farming rights are also purchased, that interest may be limited to the right to reside on the property. The easements are to be acquired from "willing" sellers with acquisition spread over a fifteen year period. The Fish and Wildlife Service has estimated an annual net economic loss to Glenn County of \$405,617 if the easements are acquired. The Fish and Wildlife Service is presently soliciting easements.

Other purchases include portions of the Sacramento River Riparian Conservation Area discussed under Section 4.1.2. The Glenn County Assessor reports two recent purchases within the Sacramento River levee including land containing orchards. The 15,000 acre Llano Seco Ranch in both Glenn and Butte Counties was also recently acquired, in part, through easements by the Nature Conservancy and State and federal agencies. South of Llano Seco, the 8,000 acre McGowan Ranch has been purchased by the State Department of Fish and Game. Approximately 3,300 acres of the Ranch are in Glenn County. The Department of Fish and Game reports that a draft plan for the property is in preparation entitled Management Plan For The Upper Butte Basin Wildlife Area. With Llano Seco, the McGowan Ranch and Grey Lodge in adjacent Colusa County, an almost unbroken belt of waterfowl habitat now exists east of the Sacramento River in Glenn and adjoining counties.

In September 1991, an Executive Council was formed through a Memorandum of Understanding between federal and State land management agencies, University of California, U.S. Fish and Wildlife Service and California Department of Fish and Game. The purpose of establishing the Council is to develop guiding principles and policies, design a statewide strategy for conserving biodiversity, and coordinate implementation strategies at a regional and local level. The State has been divided into ten "bioregions" which support a "logical" ecosystem. It is intended that regional councils be established for each bioregion composed of representatives from local governments, environmental groups and other interested parties, which will cooperate and coordinate information to plan and set goals which best conserve and preserve the amenities of their specific ecosystems. Glenn County is part of the Sacramento Valley bioregion. Due to the potential impact on Glenn County from the actions of the represented agencies, the County should request membership on the regional council for the Sacramento Valley.

4.5.1 Impact on Tax Rolls

Fee title purchases by public agencies obviously remove land from the tax rolls. Conservation easements, however, leave land on the tax rolls and may provide for farming activities to be continued in some fashion. Most acquisitions in Glenn County are proposed to be by easement. Although easements do not remove land from the tax rolls, they do have the potential to diminish property value, especially where farming rights are purchased, which will result in a reduced assessment. The County Assessor reports that purchases to date have been primarily in areas used for hunting. As the program spreads out into areas devoted more heavily to farming, the purchase of easements which restrict agriculture may diminish property value by up to two-thirds. If this is borne out, the County along with other affected counties should advocate for a property tax replacement program applicable to lands diminished in value by easements.

If land were purchased outright, the County would be eligible for payments under the federal Refuge Revenue Sharing Act. The Act is intended to reimburse counties for property tax loss. Payments, however, depend on the amount allocated by Congress and have not always equalled the loss in property tax revenues. The County Assessor reports that if the federal Refuge Revenue Sharing Act were fully funded, full fee purchase of lands in Glenn County would result in very little tax loss.

4.5.2 Impact on Pest and Animal Control

The reestablishment of substantial areas which are left in a natural condition could create animal and pest control problems for nearby properties engaged in agriculture as well as allow for the spread of mosquitos. Such areas can also lead to the need to restrict use of certain agricultural control chemicals on surrounding properties due to the concern that endangered species attracted to the area may be harmed. Wetlands restoration work must be carefully managed to avoid conflict with vector control efforts directed at reducing disease potential. If new natural areas are established in Glenn County, the County should look to establishment of buffer areas that will minimize conflicts with adjacent properties.

4.5.3 Tourism Opportunity

With the increasing emphasis on the natural environment and the interest among urban dwellers in experiencing things natural, including bird watching, camping and generally getting out of doors, the creation of wildlife refuges and natural areas could attract tourists and weekend travelers to Glenn County. This is consistent with a desire among many local officials to increase tourism in the county. Unfortunately, it is unlikely that the type of preserves to be established will be designed to attract large numbers of new visitors. The focus will be on preservation of wildlife in a relatively undisturbed environment. Tours of sites may be sponsored by groups such as the Nature Conservancy but the sites will have limited access and appeal to most groups. In addition, much of the acquisition activity will be by easement with farming and other activities continuing on the site.

It is likely controlled hunting opportunities will expand in some instances but it is unlikely this alone will bring a significant increase in visitors. An increase in hunting opportunities does, however, bolster one of Glenn County's strengths and is consistent with an interest in promoting use of lands for hunting by groups and individuals willing to pay for access.

Additional fishing opportunities may also be created along the Sacramento River since the focus of some acquisition programs will be the improvement of salmon runs. Such improvements could attract additional fishing activity to the area.

4.6 Biological Resources Opportunities, Constraints and Conclusions

- Biological resource issues in Glenn County focus primarily on retention and enhancement of diminishing habitat for species. Both the State and federal government are playing and will continue to play a significant role in habitat preservation through a variety of programs, regulations and agencies. How the County intends to respond to these initiatives and what role the County wishes to reserve to itself is key in the biological resource area and should be spelled out in the General Plan, including sites suitable for acquisition.
- From an economic development perspective, the various State and federal initiatives may have some limited value because of enhanced hunting, fishing and wildlife observation opportunities which translate into more visitors to the county. It is unlikely, however, that this will offset the economic loss resulting from less land in production, lost development opportunities and land use conflicts that are likely to arise. To help offset this loss, the

County should advocate for more reliable and inclusive federal and State programs designed to offset property tax loss.

- When considering wildlife preservation approaches, it makes most sense to look at systems or areas, rather than individual species or properties. The programs formulated by State and federal agencies for preservation of the Sacramento River Corridor (including the Butte Sink properties) or the Sacramento National Wildlife Refuge area wetlands are preferable to waiting for development opportunities to come along and then raising biological issues. If the General Plan can identify areas in which development can proceed relatively unconstrained by biological issues, then the trade-off may be worthwhile.
- Focusing preservation efforts on the Sacramento River Corridor, the National Wildlife Refuge area, migratory deer herd areas, and streamcourses such as Butte and Stony Creeks would appear to be a good "fit" with State and federal intentions and will provide ample opportunity elsewhere in the county for housing and economic activity.
- If development is proposed through the Plan process to occur in proximity to the Sacramento River, specialized policies need to be formulated assuring that compatibility with State Lands Commission policy is feasible. Further, the County needs policy on how it will interact with the State Lands Commission during review of development proposals.
- Since there are sizable private inholdings within Mendocino National Forest, it is important to share information with the National Forest concerning biological resources to assure that future actions of the County and Forest are coordinated.
- In addition to coordinating with the National Forest to assure appropriate development within inholdings, it is also important to assure that County policy protects the important deer winter range located west of Black Butte Reservoir.
- A buffer area may be needed around the Sacramento National Wildlife Refuge which protects the Refuge from incompatible development. The buffer area could focus activity in the area on those uses already established or those which benefit directly from the Refuge such as hunting clubs. Similar buffer areas may become necessary around other areas acquired or proposed for acquisition. Because State and federal actions create the need for such buffer areas, State and federal government should assist in offsetting the economic costs to property owners and the County.
- Policies should be formulated that focus local attention on protection of important foothill area resources, including protection of the two reservoirs from incompatible encroachment and protection of the Orland Buttes as an important biological resource area. Policy should also be included in the General Plan on preservation of foothill oak woodlands.
- It is anticipated that General Plan policy will direct development away from areas with wetland resources. It can be anticipated, however, that areas qualifying as wetlands will be

encountered from time to time in areas slated for development. Policy needs to be created that spells out how the County intends to handle such situations, including questions of coordination with the Army Corps of Engineers. It is unlikely that Glenn County will have sufficient development activity to make a wetlands banking program feasible.

- The Upper Sacramento River Fisheries and Riparian Habitat Management Plan suggests local adoption of riparian zone management plans as a part of the General Plan. Streamside Riparian Zoning is also recommended. Due to the interest in riparian areas in Glenn County, development of the suggested plan should be given careful consideration. The County should also consider removal or modification of the present E-M zone located on Stony Creek and along portions of the Sacramento River.
- The General Plan should contain policy describing the County's approach to dealing with sensitive species issues, recognizing that State and federal agencies do act independently. Dealing with the subject in the context of preserving areas for a variety of species should be viewed as preferable to the species-by-species approach. In this context the areas described for protection (e.g. the Sacramento River corridor, etc.) in this Issue Paper will generally fulfill this role.
- Returning better salmon and steelhead runs to local streams should be viewed as beneficial to the environment and also as a potential economic development tool as greater fishing opportunities are created. Associated with this are present water management practices which require study to determine if a more beneficial outcome for all parties is possible.
- Development of additional hunting opportunities should be encouraged by the General Plan. In this manner, the cost of preserving natural areas can be partially offset. Included should be a variety of pay-to-hunt opportunities.
- Standards for hunting camps and related enterprises need to be created as a part of the general plan process to assure that the public health and safety of those who may pay for the privilege to hunt in Glenn County is protected.
- It is apparent that the acquisition and purchase of various lands in fee and otherwise by public agencies will proceed in Glenn County. With this backdrop, it behooves the County to take a proactive approach and identify ways to benefit economically from these actions.

5.0 TIMBER RESOURCES

Background

Timber resources in Glenn County are composed of a variety of soft woods including white fir, red fir, yellow pine, Douglas fir, ponderosa pine, and incense cedar. Harvestable trees come predominantly from Mendocino National Forest although there are also private lands containing timber. Private land managed for timber production is shown on the County Zoning Map as

Timberland Preserve Zone (TPZ). Public lands within the National Forest are managed by the federal government, with the County having little jurisdiction.

Within the Mendocino National Forest, present plans provide for an annual timber sale of approximately 85.5 million board feet (including lands in other counties). A Land Resource Management Plan is currently under development for the Forest and is expected for completion in early 1992. The Plan will include new requirements for the management of the Forest in order to assure protection for the northern spotted owl. It is estimated that the new Plan will reduce timber harvest to approximately 20 to 25 million board feet.

Timber harvesting on private lands is regulated by the State Board of Forestry which approves timber harvest plans, upon request, for specific properties. Typically such plans are referred to the local planning agency for information, after approval. The Planning Department reports that the number of approved timber harvest plans received has declined. The largest private timber company in Glenn County is Louisiana Pacific. It is reported that Louisiana Pacific lands have been harvested heavily in Glenn County and that little harvestable standing supply remains. Louisiana Pacific once operated a mill at Elk Creek which has been closed for several years.

Although timber harvesting has historically been an important component of the Glenn County economy (About 4.4 percent of the total county work force was employed in forestry-related industry in 1990), the Forest Service projects that timber production may decline to less than thirty to forty percent of levels prevalent in the 1980's. Regionally, lumber mills have closed down or been consolidated into major milling centers. The role of the timber industry is not expected to grow in relation to the balance of the economy.

Specific Concerns

5.1 Future of Timberland Preserve Zone Lands

Approximately 30,000 acres of private lands within the Mendocino National Forest are zoned TPZ. TPZ was mandated under the Z'Berg-Warren-Collier Forest Taxation Reform Act of 1976, now known as the Timberland Productivity Act of 1982. Its purpose is to discourage the premature conversion of timberland to other uses. The law also requires the Land Use Element of the General Plan to reflect the distribution of TPZ Zoning and to have a land use category that provides for timber production. The State of California General Plan Guidelines describe TPZ as follows:

Patterned after the Williamson Act, TPZs are rolling ten-year contracts providing preferential tax assessments to qualified timberlands. Under this program, assessments on timber are based on the value of the timber at the time of harvest, rather than an annual assessment on the market value of standing timber. Assessment of zoned timberland is based on a statutory value of land that is related to site capability, and is annually indexed to changes in the periodic immediate harvest value.

During the first two years of the act, local governments could adopt TPZ zoning on qualified parcels without approval of the property owner provided that the statutory procedures were followed. Currently, additions to the local program are limited to requests from property owners.

Subject to approval by the legislative body, land may be removed from a TPZ by rezoning. The effective date of the new zone will be deferred, however, until expiration of the ten-year restriction. The local legislative body may, under special circumstances, approve immediate rezonings as well.

The County Zoning Ordinance limits TPZ lands to timber production and related activities. One dwelling is permitted per TPZ "contract". With the decline in the fortunes of the timber industry, the County may be faced with requests for rezonings. As noted, the rezoning will not be effective for ten years unless special circumstances exist. The special circumstances are related to matters of public interest and would not apply to a typical request for rezoning.

Removal of lands from TPZ could boost County property assessments since assessments are now restricted on such lands. It is likely that any resulting development would be recreationally related which could be a positive economic stimulus but will also carry a County service responsibility in relatively remote areas. Property owners will have a variety of responses to the timber industry's decline but it is probable that one response will be to seek another form of economic return from the property which could lead to conflicts with TPZ. If a paved highway is extended across the crest of the Coast Range, this potential is considerably enhanced.

Another option available to landowners will be to trade inholdings with the Forest Service for land elsewhere. The Forest Service often encourages such trades in order to consolidate its holdings. Large multi-state companies such as Louisiana Pacific are particularly adept at such trades and may trade spent timberland in California for harvestable timber in another state. Such activity would effectively eliminate TPZ on transferred lands and would also remove the land from the tax rolls.

5.2 Sensitive Species

Endangered and sensitive species within Glenn County timberlands include northern spotted owl, bald eagle, peregrine falcon, fisher, goshawk and marten and several rare plants. The impact of these species, in particular the northern spotted owl, is widely recognized. The listing of the northern spotted owl as threatened has had a significant effect on timber harvest plans. The owl and other species may have similar effects on other forms of development on private lands.

It will be necessary that biological studies be undertaken as development proposals are brought forward for lands now in TPZ. Although impacts on sensitive species will need to be carefully assessed, it is probable that some forms of recreation related development can be accommodated on private lands within the Forest.

5.3 Watershed Protection

The National Forest and private lands within the Forest perform a critical watershed role in Glenn County supplying water for agriculture, domestic use and power production. The greatly increased competition for water resources experienced in recent years coupled with the decline in timber production will place greater emphasis on the watershed protection values of the Forest. Development must be carefully designed and monitored to assure that it does not impair the ability of the Forest to perform this function. Erosion caused by road cuts and other forms of development can have a deleterious effect on downslope watercourses and can lead to the siltation of streams and water bodies, resulting in reduced capacity and a degraded water supply. Siltation also has a negative impact on fisheries and other aquatic resources.

Clear policies and standards must be set out in the General Plan which place a high priority on watershed protection. Included should be standards for vegetation retention, stream and drainage course setbacks, cut and fill, land coverage, and limitations on development on steep slopes. With the potential value of Glenn County's water resources, their protection should take precedence over forms of development that may have the potential to create short term gains coupled with long term impacts.

5.4 Changes in Timber Harvesting Plans

As has been noted under Background, it is clear that timber harvesting on public and private lands is in a state of decline. Under the Management Plan now being written by the National Forest, it is estimated timber production will be reduced 60 to 70 percent. Similar declines can be experienced from private lands as greater emphasis is placed on biological resources preservation and other values.

With a decline in timber harvest, there is also a decline in County revenues. Receipts are paid to the County by the National Forest to be shared equally between the public schools and the road fund. The program is commonly referred to as the "25% receipts program", since local government receives 25 percent of the revenues generated from Forest activities. The function may also be referred to as an "in-lieu of tax receipts" program, since the purpose of the program is to reimburse local government for lost property tax. Total Forest revenues are taken into consideration and may include, in addition to timber harvest receipts, revenues from recreational use permits, grazing fees and mining as well as other activities. In the case of Mendocino National Forest, fees attributed to timber have approached 95 percent of total Forest receipts.

Over the last six years revenues to Glenn County government have averaged approximately \$600,000 on an annual basis. In future years it is likely such revenues will decline to a level approximating \$150,000 to \$200,000. The Forest reports that approximately 20 million board feet is currently under contract. This compares with three to four times that amount under contract, based on past norms. Although timber production has already declined, it is not reflected in the above reported receipts due to the fact that payment is made at the point timber is processed as opposed to when it is cut. This results in a lag in the time a reduction in timber production is felt at the receipts level. The above described decline in Forest receipts shows

clearly that the reduction in timber harvest will not only reduce jobs and economic activity in Glenn County but also reduce direct financial support for Glenn County schools and roads.

At all levels of government, there is an awareness that the forests of California will be called upon to perform increasingly as areas of recreational solitude for harried urbanites, as preserves for scarce species of plant and animal life and as protected watersheds to quench the State's increasing thirst. In this context, the timber industry will play a secondary role rather than the dominant one played during most of this century. The County must be ready to respond to these new directions through formulation of General Plan policy which will recognize these realities while providing for economic use of private lands within the Forest.

5.5 Timber Resources Opportunities, Constraints and Conclusions

- The timber industry in Glenn County and elsewhere in Northern California is in a serious state of decline. This means both lost jobs and tax revenues to Glenn County. The General Plan needs to recognize this reality and at the same time propose new directions which capitalize on remaining opportunities.
- State law requires the General Plan to recognize the distribution of TPZ lands and to have a land use category for timber production. The present General Plan for Glenn County complies with this requirement.
- As a result of the decline in timber production, the County may be faced with requests to change TPZ to another zoning category that will allow for other forms of economic return. The most probable alternative land uses will be those related to recreational activity. It will be in the County's interest to take an objective look at such requests in order to explore all potential economic development opportunities.
- The timber industry decline may prompt trades of private lands with the National Forest resulting in a loss in local tax base. The County should discourage such trades unless they are seen as necessary to preservation of critical watershed and wildlife areas.
- The removal of lands from TPZ could boost County property tax assessments. At the same time, demands for additional county services will be generated in remote reaches of the county. The County should assure that such development shoulder its fair share of service related costs through appropriate assessments and mitigation fees.
- Although impacts on sensitive species and other wildlife must be considered, it is probable that some forms of recreation related development can be accommodated on private lands within the Forest. The County may wish to approach major landowners to determine the level of interest that may be present in exploring recreationally related development.
- Timberlands play a major watershed protection role. Clear policies and standards must be set out in the General Plan which place a high priority on watershed protection. Included

should be standards for vegetation retention, stream and drainage course setbacks, cut and fill, land coverage and limitations on development on steep slopes.

- Not only are jobs and economic activity lost due to reduced timber harvesting, but also tax revenues to local government under the "25% receipts program". The General Plan must recognize this reality while seeking new directions for use of timbered lands which will preserve and capitalize on their unique recreational, biological, and watershed values.

6.0 MINERAL AND ENERGY RESOURCES

Background

Mineral and energy resources are found in relative abundance in Glenn County, and represent a potential source for economic development in the county. In addition to providing local employment and resources for local use, several of these processes provide a source of revenues to the County, both through direct fees and property taxes.

The County is currently in the process of developing an Energy Element of the General Plan for adoption in 1992. This is an optional element of the General Plan which still must be consistent with the seven mandatory elements. Material from three working papers which have been completed for the Energy Element - the Environmental Resources and Energy Technologies - Draft Environmental Setting, the Energy Facility Siting Working Paper and the Energy Efficiency and Conservation Working Paper - has been referenced and excerpted in this section. In addition to discussion contained in this Issue Paper, recommendations regarding specific energy goals and policies for the County will also be a part of the Energy Element. This Issue Paper will identify certain goals, policies and implementation strategies where a desired direction is presently known, and will defer to the Energy Element for others.

Specific Concerns

6.1 Distribution of Mineral Resources and Provisions for their Continued Availability

6.1.1 Natural Gas

Figure 2-9 of the Environmental Setting Technical Paper shows the existing gas fields within Glenn County. While these fields are located throughout the valley floor portion of the county, the Malton-Black Butte field located on the border with Tehama County, and the Willows-Beehive Bend field located in southeastern Glenn County account for nearly 80 percent of the total gas production in the county. Detailed production and estimated reserve figures for operations within those fields during 1989 are contained in Table III-1 of the Energy Facility Siting Working Paper of the Glenn County Energy Element.

Approximately 2.8 percent of total statewide natural gas production in 1989 was produced in Glenn County. According to the Energy Facility Siting Working Paper, it is quite likely that

natural gas production will continue in Glenn County for at least the next twenty years. No public information exists regarding planned or proposed facilities. The paper concludes that the County should expect significant gas exploration and extraction to continue, most likely centered around the existing gas fields.

The Energy Facility Siting Working Paper notes that Pacific Gas and Electric Company (PG&E) operates gas well collection pipelines to convey natural gas from the gas fields into their main gas pipeline system. The County can therefore expect that additional gas collection pipelines will be constructed in response to new gas field development. In 1989, the Public Utilities Commission (PUC) decided that the cost and risk of providing gas collection lines should be borne by the gas producers rather than PG&E customers. As a result, PG&E recently discontinued laying gas collection pipelines to individual gas wells (with certain exceptions allowed by the PUC decision). In response, Glenn County created a franchise program that provides gas producers with easements to lay pipelines within County rights-of-way to connect to PG&E's distribution system. In effect, gas transporters pay the County an annual fee (dependent upon the size of the pipeline) for the ability to route pipelines within County-owned rights-of-way.

With regard to gas well siting, their location is obviously limited to areas with a subterranean gas resource. Assuming that the County has an interest in the maintenance and expansion of natural gas resources, it is important to identify gas field locations so as not to preclude gas development by allowing other uses in the vicinity that may conflict with gas development.

The Energy Facility Siting Working Paper identifies the general environmental issues associated with the siting and development of gas and oil wells. It states that natural gas extraction facilities may adversely impact, or be constrained by the following environmental features:

Geology. Geologic features may be impacted by gas and oil facilities, and such facilities may be constrained by geology as follows:

- increased soil erosion potential during exploration and initial production;
- risk of spills, leaks, or discharges that can contaminate the soil; and,
- ground subsidence that can damage infrastructure such as sewer, water and gas mains.

Hydrology. Gas production may adversely impact water resources by:

- pumping extracted wastewater into fresh water aquifers through injection wells;
- polluting surface or groundwater resources through accidental spills or material extracted from wells; and
- increasing erosion and sedimentation to nearby creeks.

Air Quality. Air quality may be adversely affected by oil and gas development by:

- generating air pollutants during recovery and refinement; and
- increasing vehicle traffic associated with transport of oil and gas.

Biology. Biological resources may be impacted by gas field development by:

- degrading air, water and soil quality; and
- converting wildlife habitat into incompatible industrial uses.

Aesthetics. Natural gas extraction may have adverse aesthetic impacts by:

- occupying large areas of land; and
- constructing drilling facilities with tall derricks.

Although noise is not included in this listing, noise from gas well compressors is also apparently an environmental issue. Because of potential impacts to biological, hydrological and aesthetic resources, natural gas extraction should be limited and/or carefully monitored near such sensitive areas as wildlife refuges, streams and riparian habitat, and important view corridors.

The Glenn County Zoning Ordinance allows natural gas wells with an administrative permit in the Recreation (RZ), Foothill Agricultural/Forestry (FA), Agricultural Preserve (AP), Exclusive Agricultural (AE), Commercial (C), Industrial (M) and Extractive Industrial (E-M) zones. Administrative permits are granted by the Planning Director if the following findings are made:

- That the proposed use at the particular location is necessary or desirable in providing a service or facility which will contribute to the general well-being of the public;
- That such use will not, under the circumstances of the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity, or injurious to property or improvements in the vicinity;
- That the site for the proposed use is adequate in size and shape to accommodate said use and to accommodate all of the yards, setbacks, walls or fences, and other features required herein or by the Planning Commission.
- Except in the case of the expansion of a nonconforming use, that the granting of the permit will not adversely affect the general plan or any area plan of the County.

The County considers such permits to be ministerial and therefore exempt from the California Environmental Quality Act. Injection wells are permitted in the AP, AE, AT, C, M and E-M zones with a conditional use permit.

The Division of Oil and Gas (DOG) of the California Department of Conservation oversees oil and natural gas production of oil and gas wells, and all onshore drilling, production and injection must conform to DOG regulations. Prior to DOG evaluation of a proposed well, however, a driller must have an approved land use permit from the County. This review procedure insures that Glenn County will have permit authority over future gas development.

It is assumed that the County will wish to continue to accommodate, and possibly encourage, additional development of natural gas resources in the county because it represents a source of direct revenues to County government as well as a source of employment and other economic

benefits. The County should plan accordingly, by assuring that any areas proposed for new urban development in the General Plan do not encroach upon known gas fields.

While most fields are located in agricultural fields areas, there are gas fields in the vicinity of East Orland and the Capay area. It is essential in these areas that new urban development and urban limit lines be formulated to avoid these areas to the extent possible and that permits for new wells include mitigation measures designed to minimize impacts on existing development. Standard measures can be developed for inclusion in the Zoning Ordinance as part of the administrative permit approval process.

6.1.2 Sand and Gravel (Aggregate)

Figure 2-8 of the Environmental Setting Technical Paper shows the location of sand and gravel operations within the county. The primary area for gravel extraction occurs along Stony Creek, although there are other pockets of the resource scattered throughout the county.

Commercial mineral extraction is permitted with a conditional use permit in the AE zone, and quarrying, dredging, surface mining, underground mining and removal of overburden for the recovery of commercial and industrial aggregate are similarly permitted in the E-M zone, which has been applied along Stony Creek. Various types of concrete production and distribution are also permitted in the E-M zone. The County continues to receive applications for new gravel extraction operations.

There are potentially significant environmental impacts associated with sand and gravel extraction and related operations, including impacts on geology and soils, air quality, hydrology and water quality, vegetation and wildlife, fisheries, noise, transportation/circulation, public services, land use and quality of life for any surrounding residents. The cumulative impacts of multiple operations on soil erosion, hydrology and depletion of resources raise particular concerns.

All active and proposed surface mining operations are required by State law to submit a reclamation plan to the County which sets forth the eventual restoration of the facility once the resource is exhausted or the extraction ceases for other reasons. These plans are reviewed by the State. However, the security posted to assure that these plans will be implemented is frequently inadequate.

The Conservation Management Element of the Glenn County General Plan (1987) states that gravel extraction, processing and transportation should be properly planned, and that the County should:

- (1) Require that mineral extraction operations be performed in a way that is compatible with surrounding land uses and does not adversely affect the environment.
- (2) Consider the following when approving future extraction:

- a. Preservation of top soil
- b. Preservation of natural vegetation, wetlands and wildlife habitat
- c. Control of erosion
- d. Control of drainage and desilting basins
- e. Control of noise and visual impacts
- f. Ability of roadways to accommodate heavy traffic
- g. An engineering and geological survey
- h. A restoration plan
- i. Bonds commensurate with total costs of compliance with requirements imposed
- j. Preservation of fisheries
- k. Inventories of sand and gravel and their replenishment
- l. Discourage land use policy conflict
- m. Control of air pollution (dust)

However, the existing plan does not include any polices which address these issues.

State law (the Surface Mining and Reclamation Act of 1975) requires the State to identify and classify as to significance areas which are urbanized or subject to urban expansion which would preclude mineral extraction. This identification has not been completed for Glenn County. The law provides that, once the classification is completed, the County must establish mineral resource management policies to be incorporated in the General Plan which will:

- Recognize mineral information classified by the State Geologist and transmitted by the board.
- Assist in the management of land uses which affect areas of statewide and regional significance.
- Emphasize the conservation and development of identified mineral deposits.

As with natural gas, it is assumed that the County has an interest in continuing to accommodate additional development of aggregate resources in suitable locations because of the economic benefits. The County itself uses these materials for road construction and maintains its own extraction operations near Artois. The State recognizes the statewide importance of these resources as well as evidenced by the requirements in State law. The County also has an interest, however, in making sure that these operations do not degrade the quality of other important resources, including water, air and riparian vegetation along Stony Creek, and that new conflicts with urban development are not created.

6.2 Expansion of Energy Resources

Because of the relative abundance of energy resources in Glenn County, and the opportunities for local employment and revenues which follow, the development and expansion of energy resources offer opportunities as well as potential drawbacks. Two resources which are given

special consideration in the Glenn County Energy Element are hydroelectric power and biomass production.

6.2.1 Hydroelectric Power Potential

As described in Section 2.5 of the Environmental Setting Technical Paper, two hydroelectric power facilities are located in Glenn County (Stony Gorge and High Line Canal). These hydroelectric facilities are operated for the City of Santa Clara by the Orland Unit Water User's Association. The State Department of Water Resources has performed engineering feasibility studies for construction of various reservoir projects to supplement the State Water Project's capacity. All the projects evaluated would include hydroelectric power generation facilities. These projects are currently on hold, however. According to the Energy Facility Siting Working Paper, the County should expect some aspect of the project to be proposed as state water becomes increasingly scarce.

The Working Paper identifies the general environmental issues associated with the siting and operation of hydroelectric facilities as follows:

Hydrology. Hydroelectric facilities may adversely affect water resources by:

- changing stream flows;
- changing the amount of groundwater recharge; and
- affecting water turbidity (the amount of sediment within the water) and oxygen content.

Biology. Biological resources may be impacted from hydroelectric development by:

- displacing terrestrial habitat with a new lake environment;
- restricting wildlife migration patterns; and
- altering water quality and quantity, thereby adversely impacting aquatic life.

Geology. Geologic features may be impacted by hydroelectric facility development and such facilities may be constrained by geology as follows:

- increasing erosion potential during construction;
- creating exposure to earthquake hazards; and
- creating landslide potential.

Aesthetics. Hydroelectric facilities may adversely impact aesthetics by:

- being located on steep, visible slopes to take advantage of hydrostatic head;
- converting a free flowing natural stream landscape to an industrial-looking facility.

Cultural Resources. Hydroelectric projects may impact cultural resources by:

- reservoirs inundating cultural sites; and
- disturbing or destroying archaeological sites during construction.

When siting such facilities, consideration should also be given to land use issues as well, such as locating facilities downstream from major population centers, where possible, to avoid hazards

in the event of dam failure. Consideration should also be given to potential land use conflicts resulting from recreational uses created by constructing a reservoir/dam project, e.g. boating, fishing and swimming vs. hydroelectric facilities. It is anticipated that siting criteria will be addressed in the Energy Element which is being prepared separate from the general plan effort. In order to ensure internal consistency among the various elements of the General Plan, potential siting criteria in the Energy Element should be integrated into the overall general plan process.

Hydroelectric facility permitting is controlled by the County unless it is proposed on lands under the jurisdiction of the State or federal government. Various types of these uses are permitted with a conditional use permit in the RZ, FA, AP, AE, AT, RE, R-1, R-M and M zones. However, approvals are also normally required from one or more of the following State and federal agencies: State Water Resources Control Board, California Department of Water Resources, and the Federal Energy Regulatory Commission.

While offering the potential for local employment, revenues, and a new source of electrical power (if the power generated is not exported elsewhere), siting of new large-scale hydroelectric facilities has become extremely sensitive due to the potential impacts described above. The impacts of such facilities on fisheries are receiving increasing attention.

As described above, the County's Zoning Code allows these facilities, with a conditional use permit, in residential zones. It seems unlikely that a hydroelectric facility would be approved in a residential area.

Biomass Production

According to the Energy Facility Siting Working Paper, the agricultural industry in Glenn County offers significant potential for biomass energy (including waste-to-energy) production. Table II-2 of that document estimates potential biomass tonnage from crop residues. Converting the total potential biomass energy above into kilowatt hours yields roughly thirteen times the 1990 electricity use in the county. Aside from the potential energy benefits of biomass conversion, it is reported that air quality benefits may also accrue. Currently, much agricultural waste is burned in the fields, contributing to local exceedances of air quality standards for particulates. While biomass conversion often creates air quality impacts of its own, it may result in a net decrease in pollutant emissions.

Recently adopted legislation already requires a phased reduction in burning of rice straw. However, the characteristics of rice straw also limit its utility for biomass conversion. According to the Energy Facility Siting Working Paper, the requirements of the Clean Air Act coupled with the current inability to use rice straw as a biomass feedstock may significantly affect the rice industry within Glenn County.

There is currently one waste-to-energy facility located in Glenn County, but it is not operative. Glenn County is considering entering into a contract for construction of a pyrolysis (chemical changes caused by heat) facility at the Glenn County landfill. These types of facilities are not specifically listed as permitted or conditional uses in the Glenn County Zoning Code.

The Energy Facility Siting Working Paper identifies the following general environmental issues associated with the siting and operation of biomass conversion facilities:

Geology. Geologic features may be impacted by biomass conversion facility development, or geology may constrain such development as follows:

- requiring landfill space for ash disposal;
- creating the potential for erosion and soil impacts from crops raised specifically for biomass consumption; and,
- increasing runoff and resulting sedimentation and leaching of pesticides and fertilizers.

Air Quality. Biomass conversion facilities may adversely impact air quality by:

- venting by-product emissions such as carbon dioxide, oxides of nitrogen, sulfates, and particulate matter into the atmosphere;
- creating objectionable odors near adjacent sensitive land uses;
- employing grain elevators, screening, and grinding equipment during the fuel loading, drying and handling processes; and,
- increasing vehicle traffic associated with transporting biomass products.

Water. Biomass energy production may impact water resources by:

- using large quantities of water for cooling and washing of facilities;
- creating contaminated waste water; and,
- requiring additional treatment facilities to treat contaminated waste water.

Biology. Biomass facilities may adversely affect biological resources by:

- exposing humans, wildlife and habitat to pollution by-products; and,
- eliminating endangered species and/or their habitat through removal of forestry slash.

Aesthetics. Aesthetics may be adversely impacted by biomass facilities by:

- creating a relatively large, industrial type land use;
- employing tall stacks to vent exhaust emissions that are highly visible; and,
- creating plumes of smoke or steam that are highly visible.

Circulation. Biomass may create adverse circulation impacts by:

- requiring large trucks to transfer biomass products to conversion facilities, assuming such facilities are not located where the biomass is generated;
- impacting rural roads which are not designed to handle the weight of fully loaded transfer trucks; and,
- creating safety hazards from large trucks that may constrain traffic movement.

Because of the potential to put the county's large volumes of agricultural waste to productive use, some provision for biomass production should be made in the County's General Plan and Zoning Code. At the same time, the need to ensure compliance with the Clean Air Act must be kept in

mind. This issue should be addressed in the County's Air Quality Attainment Plan, and there should be consistency between that Plan and the County's Energy Element.

6.3 Land Use Compatibility

In addition to the potential benefits of mineral extraction and energy facilities, and the impacts they may have on other resources and the environment, there is also a potential for land use conflicts to occur. The nature of these land use compatibility issues is described below, as excerpted from the Energy Facility Siting Working Paper (with the exception of the aggregate mining discussion). The Glenn County Energy Element will include goals, policies and implementation measures which address land use compatibility issues related to natural gas production and transmission, hydroelectric facilities and biomass conversion.

- Gas and oil wells and pipelines. Gas field development requires initial exploratory activity and later drilling operations that may conflict with noise sensitive land uses. Seismic testing may involve the use of explosives or "thumper trucks" (trucks equipped with pounding equipment that send sound waves into the ground), and drilling rigs typically operate on a 24-hour basis until a well is completed. Possible hazards include some fire and explosion risks, though such events are rare. For these reasons, urban development (especially residential and commercial uses) should be restricted to low densities in or near gas fields, if allowed at all.

Natural gas wells require above-ground valves and other metering equipment, pipelines, and maintenance access roads, such ancillary facilities may conflict with existing agricultural uses by hindering the movement of farm machinery and irrigation equipment, as well as effectively removing agricultural uses where such facilities must be situated. In rural areas using ground water sources, injection well activity may conflict with established residential uses.

- Hydroelectric facilities. Dams used to create reservoirs present the possibility of hazards to downstream land uses in the event of dam failure, though such occurrences are extremely rare because of construction and continuing safety inspections required by the State Division of Dam Safety. While it may be impractical to avoid locating such facilities upstream from major population centers, care should be given to the siting of community emergency response facilities (hospitals, potential emergency shelter sites, control centers, etc.) downstream from reservoirs.

Dams constructed along free-flowing rivers or streams may conflict with recreational uses of the waterway, including certain types of fishing. Conversely, reservoirs can often create new recreational opportunities such as swimming, boating, and fishing, although such activities may not be compatible with nearby hydroelectric generating facilities. Restricted access near generating facilities can help mitigate such potential conflicts.

- Biomass Conversion. Biomass facilities are generally relatively large, industrial-type land uses. They can generate smoke and/or odors that can be offensive or even dangerous to

downwind populations. Such facilities may also require the use of large trucks or other noisy equipment to move biomass and resulting waste products. For these reasons, biomass facilities should generally be located in areas unsuitable for industrial development and away from residences, retail commercial areas, recreation areas, or sensitive wildlife habitats.

- **Sand and Gravel Extraction.** Aggregate mining operations must be located in streambeds, and as such have particular impacts on soil erosion and hydrology. Surrounding agricultural operations and rural residential areas which depend on ground water may experience changes in water quantity and quality. The principal types of conflicts with residential uses are traffic, dust generation and noise. There is a particular problem in the West Orland area where the only access to facilities on Stony Creek is through local roads in a rural residential development. Because extraction must occur where the resource is available, a decision must be made as to whether to allow such operations in proximity to existing residential, agricultural (e.g. orchards), and noise-sensitive uses. New residential and noise-sensitive uses should not be permitted in proximity to existing mining operations, or potential operations if the County wants to encourage such operations.

6.4 Energy Efficiency and Conservation

The Energy Efficiency and Conservation Working Paper has been prepared as a part of the Energy Element work program in order to identify energy use patterns and energy efficiency and conservation programs that may reduce energy use. Several factors are identified which affect the use of energy in Glenn County. For residential use, those factors are listed as population, climate and appliances. The Paper concludes that generally, energy use will grow proportionally with population. The effects of climate are rather obvious with greater energy being consumed during periods of hot and cold weather. The efficiency of household appliances also affects energy use with older appliances operating less efficiently than newer models.

For commercial and industrial uses, heating, ventilation, air conditioning, lighting and refrigeration are the largest factors with manufacturing itself being a significant user in industries such as the Manville fiberglass manufacturing facility. In agriculture, most energy use is associated with the movement of water through pumping of surface and groundwater.

Transportation energy use is primarily related to the individual automobile. Automobile energy consumption is affected by the number of vehicles, how many miles are driven, and the efficiency of those vehicles. Glenn County has relatively few vehicles as compared to other areas of the State, but the relatively low population density, and the lack of public transportation causes trips to be more frequent and to cover longer distances. The manner in which agricultural products are transported also has an effect on energy use. Rail service uses one-fourth the energy to move goods than do trucks. The prohibition on triple tractor trailers in California also causes greater energy use as most truck tractors run more efficiently carrying heavier loads.

Land use planning can have a significant effect on energy use patterns through the way in which development occurs. Scattered discontinuous patterns of development create more automobile trips for basic goods and services. Placing homes remote from jobs also adds to transportation

energy use. The County should plan with energy conservation in mind as it identifies areas appropriate for development and distributes land uses. Access to present and future forms of alternative transportation should also be factored into decisions and provision should be made in new developments for pedestrian and bicycle use, and future park-and-ride lots and transit facilities.

Construction methods and siting of structures should be reviewed with energy conservation in mind. Programs for retrofitting existing homes and businesses should also be encouraged. This should go hand-in-hand with public education programs. These topics, and others discussed above will be covered in more detail in the Energy Element and recommendations from that document will be integrated into the General Plan land use planning process.

6.5 Mineral and Energy Resources Opportunities, Constraints and Conclusions

- Opportunities, constraints and conclusions with regard to energy resources will be excerpted and summarized from the Glenn County Energy Element.
- Mineral resources represent an economic development opportunity, but their extraction may have detrimental environmental effects and create land use conflicts. Using the existing goals for mineral extraction from the Conservation Management Element as a starting point, the General Plan should include policies which assure that impacts of mining operations on the environment and surrounding land uses are fully mitigated, through site-specific mitigation measures and through payment of a mitigation fee which also compensates for resource depletion. These policies can be implemented through the CEQA process.
- Through the Noise Element of the General Plan, the County should establish policies and standards to apply to proposed mineral extraction operations near existing noise-sensitive land uses, and to proposed new noise sensitive land uses near existing mining operations.

7.0 CULTURAL RESOURCES

Cultural resources refer to resources created by humans which are considered to be of value - historic structures and artifacts, archaeological sites and artifacts (primarily Native American in origin), and aesthetics with respect to the impact of structures, signs and other facilities on scenic natural vistas. Such resources may be of local, regional, statewide or even national significance. It is first necessary for the General Plan (normally, the Conservation Element) to identify sites of cultural resource value which the County wants to preserve, then formulate a policy basis for their preservation. This section includes a discussion of issues related to historical, archaeological, aesthetic and scenic resources.

Specific Concerns

7.1 Historical Resources

It is unfortunate that few known historically significant structures remain in the unincorporated area of Glenn County, although there are several historical sites and monuments. These include the Monroeville Cemetery Historical Site, the Will S. Green Monument (County Road 204, relocated by Glenn-Colusa Irrigation District at their diversion gates), Swift Adobe Monument (County Road 99W north of Orland), Kanawha Cemetery Monument (State Highway 162, west of Willows), Monroeville and Ide Monument (State Highway 45 north of Ord), and The Willows Monument (State Highway 162 east of Willows). In addition, according to the 1987 Conservation Management Element, there is a need for a historical monument at the site of the Jacinto landing (State Highway 45 at the junction with County Road 39).

Several cities in California have adopted historic registers, historic preservation elements of their general plans and historic preservation ordinances. It is more unusual for a county to do so, presumably because the historic resources located in the unincorporated area are few or scattered. According to the State Office of Planning and Research, only Mariposa, Monterey and Sonoma Counties have adopted historic preservation elements. Unless there is a high interest locally in identifying and preserving historic structures, it should be sufficient to include policies in the General Plan to protect the sites listed above and to protect additional sites or structures should they be identified.

7.2 Archaeological Resources

As reported in the Environmental Setting Technical Paper, according to information obtained from the California Archaeological Inventory Information Center at California State University, Chico, there are four general environmental zones in Glenn County which vary as to archaeological sensitivity: the Riverine, Valley, Foothill and Coast Range zones. Precise locations of archaeological sites are not divulged in order to prevent plunder and vandalism.

In the Riverine Zone, most sites are villages typically located on raised areas adjacent to the Sacramento River. Any development proposed adjacent to the River would normally be carefully scrutinized anyway for environmental impacts, including archaeological impacts. The Foothill Zone has the highest density of sites, most of which are close to water sources. The Coast Range has a lower density of sites, with most sites located on ridge tops, along streams, and on mid-slope flats. Most of the area within these zones is either within the Mendocino National Forest, or is planned and zoned for grazing where little development occurs and disruption of archaeological sites is unlikely to occur. A large percentage of foothill lands are in Williamson Act contracts as well.

The Valley Zone is the area between the Sacramento River and the foothills. Within this zone, most recorded sites are smaller villages or campsites located along seasonal streams, and historic sites such as homesteads. Because cultivated agriculture and most of the cities and towns of Glenn County are located in this zone, it has the highest potential for disruption.

The Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) establish a process for assessing project effects on historic and prehistoric

archaeological resources (Appendix K). It states that public agencies should seek to avoid damaging effects on an archaeological resource whenever feasible. If avoidance is not feasible, the importance of the site must be evaluated using criteria outlined in the Appendix. According to this Appendix, avoiding damage can be accomplished by many approaches, but in-site preservation of a site is the preferred manner of avoiding damage to archaeological resources. If avoidance is not feasible, the lead agency should include an excavation plan for mitigating the effect of the project on the identified qualities which make the resource important. The Appendix also sets limits on the time and cost of mitigation measures which can be required by the lead agency. Finally, procedures are set forth in the event of a discovery or recognition of human remains outside a dedicated cemetery.

According to Section IX of the Appendix, a lead agency (in this case, the County) should make provisions for archaeological sites accidentally discovered during construction. These provisions should include an immediate evaluation of the find. If the find is determined to be an important archaeological resource, contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ one of the avoidance measures should be available. Construction work could continue on other parts of the building site while archaeological mitigation takes place.

The County General Plan should incorporate a policy or policies expressing the County's intent to ensure compliance with Appendix K, including the establishment of standards for when site-specific archaeological surveys will be required prior to project approval. More specific procedures can be delineated in the County's local CEQA Guidelines.

7.3 Aesthetics

The discussion of aesthetics in this section is intended to refer primarily to the natural environment; a discussion relating to the "built" environment, including design review, is included in Section 2.4.1 of the Community Development Issue Paper. Glenn County is fortunate to have great scenic beauty and a variety of scenery, including the Sacramento River and streams, foothill and mountain areas, agricultural vistas on the valley floor, the Sacramento National Wildlife Refuge, glimpses of wildlife and a distant view of Mount Lassen. It is assumed that these visual resources are valued and that the County, through its General Plan policies, has an interest in preserving this resource for local enjoyment as well as for economic development (tourism) purposes.

7.3.1 Light and Glare

The Environmental Setting Technical Paper did not identify any unusual or noteworthy sources of light and glare in the Glenn County unincorporated area. In fact, compared to the San Joaquin Valley, this portion of the Sacramento Valley is noticeably darker at night, and the night sky is more visible. Assuming that the County does not wish obnoxious sources of light and glare to be created, the General Plan can establish policy regarding permitted levels of illumination and shielding of light sources to be implemented through the County's Design Review Guidelines.

7.3.2 Highways

A Scenic Highways Element used to be a mandatory element of general plans. While it is no longer required, it can be included in other general plan elements such as Conservation or Open Space. The Conservation Management Element of the Glenn County General Plan includes a section entitled Scenic Highways. According to that document, Glenn County does not include any eligible or State-designated scenic highways.

The previous adopted Scenic Highway Element recommended designation of State Highways 45 and 162 as scenic highways. It has also been suggested that State Highway 32 and County Road 99W be considered for scenic highway status. Eligible routes can be designated scenic by the California Director of Transportation following a request from the Board of Supervisors and the recommendation of the Department of Transportation Advisory Committee. Apparently, the main benefit of scenic highway designation is the promotion of tourism in the county; however, the process required for State designation, including restrictions on overhead utilities, may be out of proportion to the actual benefits which accrue.

The County can locally designate scenic highways and establish policy in the General Plan with regard to allowed uses, setbacks, and design standards. New signs and billboards can be limited or prohibited within such corridors.

7.4 Areas of Outstanding Scenic, Historic and Cultural Values

The Biological Resources Section of the Natural Resources Issue Paper identifies twelve important biological resource areas in Glenn County. Six of the areas (Llano Seco, Oxbow Waterfowl area, Oxbow Heron Rookery, Princeton Riparian Woodland, Sacramento River Wildlife Area and Sacramento River Oxbow Preserve) are associated with the Sacramento River and are intended to protect the unique riparian forest, marsh and floodplain bordering the Sacramento River. Two of the areas (St. Johns Mountain and Sheetiron Mountain) are within the Mendocino National Forest Service. The remaining areas are the Sacramento national Wildlife Refuge, Black Butte and Stony Gorge Reservoirs, and Orland Buttes. These resource areas qualify as areas of outstanding scenic value as well, along with vistas from the potential scenic highways identified in Section 7.3.2 above.

Areas of outstanding historic and cultural value include the historic sites identified in Section 7.1 above, areas along the county's watercourses, which have a high potential for archaeological resources, the Grindstone Indian Reservation, County parks and the Mendocino National Forest. Because the location of individual archaeological sites is not divulged, it is not possible to identify those areas in the General Plan.

7.5 Cultural Resources Opportunities, Constraints and Conclusions

- Disturbance of historical and cultural resources by development has not been a major issue in Glenn County due to the relatively slow pace of population growth and urban development. Mineral extraction may have the greatest potential to create such impacts. Compliance with the process outlined in Appendix K of the CEQA Guidelines should be incorporated as a

policy of the General Plan. The General Plan should also provide for protection of historic sites identified in the Plan.

- Scenic vistas, highways and corridors should be identified and protected through General Plan policies which specify the types of land uses which are appropriate, as well as standards for site and building design, lighting and signs.

8.0 ALTERNATIVES

For each Issue Paper, three alternative scenarios are to be developed and reviewed with the staff, Citizens Advisory Committee and decision makers. As suggested in the State General Plan Guidelines, for any set of circumstances, a number of possible courses of action or planning scenarios exist. It is our purpose in this Section to identify a reasonable range of alternatives related to Natural Resources in Glenn County and to explore the various pros and cons of the potential courses of action. The alternatives should also be examined for consistency with the goals and policies described in the previous Section of this Issue Paper.

The alternatives need not be mutually exclusive and ultimately the decision makers may choose to consolidate ideas from more than one scenario. Further, it must be kept in mind that decisions concerning Natural Resource alternatives will have an impact on alternatives identified for Community Development and Public Safety, and vice versa, requiring alternative futures in all three areas to be reviewed and absorbed prior to decision making.

The General Plan Guidelines recommend that each alternative be evaluated for its short-term and long-term environmental, economic and social effects. This Issue Paper will use the suggested format, to the extent it is applicable to natural resource issues. Evaluation of the environmental effects of each alternative will also form the basis for evaluation of project alternatives pursuant to the California Environmental Quality Act, at such time as the EIR for the General Plan is prepared.

The role of Glenn County and that of present and future cities will also be explored. This subject will have greater meaning in the areas of community development and public safety. However, the well being of Glenn County's natural resources will also be influenced by the respective roles of the County and its cities, and whether mutually agreed upon plans, priorities and cooperation mark city/county relations, or whether conflict leads to unilateral decision making at the expense of the other jurisdictions and the County's resource base.

8.1 Scenarios

Three general scenarios which suggest themselves for Glenn County resources include one with a strong natural resource preservation ethic (Alternative 1NR), one which emphasizes use of natural resources in a regulated framework which balances preservation with beneficial use (Alternative 2NR), and a third which gives the highest priority to relatively unconstrained use and development of natural resources (Alternative 3NR). Each scenario is described and evaluated in the following paragraphs.

Alternative 1NR

Description

Under this alternative, emphasis is placed on preservation of natural resources and decisions are made based on benefit to the natural environment. Local economic and social consequences are deemphasized while greater importance is placed on preserving natural features, fish and wildlife on behalf of the larger public interest. The priorities of the various State and federal agencies which are attempting to preserve and recreate wetlands and other natural areas in Glenn County would be adopted as local priorities. Production agriculture, although important in any preservation scheme because of its open space value, would play a secondary role to efforts to restore the natural environment. Additional lands would be removed from the tax rolls as public agencies, including the County, played a larger role in direct land ownership and management for the benefit of natural areas and species.

The Williamson Act would receive strong support under this scenario and would be used to retain agricultural and open space land in a relatively undeveloped state. Few, if any, exceptions would be made to accommodate other forms of development. Dairies would be approached cautiously under this scenario, due to concerns about the potential for surface and groundwater contamination, as well as air quality problems that may be associated with dairies.

Urban limit lines would be established and strictly enforced in an effort to contain development within existing urbanizing areas. Rural residential development would be discouraged and severely limited in order to protect the county's open space lands. Exclusive agricultural zoning would remain in place and would be strengthened to assure that agricultural land was not converted to nonagricultural use or divided into parcels too small to be of value as agricultural and nonagricultural open space.

Exportation of ground and surface water would be prohibited and local water use priorities would emphasize wildlife as opposed to agriculture and urban use. Groundwater recharge areas would be carefully protected and most forms of development would be prohibited in such areas. Watershed areas would also be given special attention and most forms of activity would be prohibited on steeply sloping terrain. It is unlikely that additional reservoirs would be constructed in Glenn County.

The development of habitat conservation plans pursuant to the federal Endangered Species Act would be strongly endorsed as would the concept of preserving large areas or systems for the benefit of wildlife. A riparian zone management plan would be developed for Stony Creek and the Sacramento River and the E-M (Extractive Industrial Zone) would be eliminated from use in Glenn County. Aggregate mining would be closely regulated and would only be permitted if it could be shown that all environmental impacts could be mitigated, including returning the site to a natural condition upon completion of mining.

Hunting opportunities would be encouraged, although closely monitored, due to the common interest of hunting groups in preservation and restoration of natural areas. Membership would be

sought in the Sacramento Valley Bioregion Regional Council and the group's efforts would be strongly supported.

Timberlands would be left alone to heal and restore themselves after a considerable period of overcutting. Other forms of development on timberlands would be discouraged due to the impact they may have on watershed lands and wildlife. Public acquisition of inholdings within the Mendocino National Forest would be viewed positively and as beneficial to management of forest resources.

Gas well exploration would be permitted as long as activity did not encroach into natural areas or other areas inhabited by sensitive species of plant or animal life. Energy conservation would be given a high priority. Infill activity, clustering and alternative forms of transportation would be strongly supported to conserve energy and land. Remote development would be discouraged and a jobs/housing balance would be sought for all new development in order to reduce travel and energy use.

An historic preservation plan would be authorized and implemented as would a scenic highways system. Cultural resource surveys would play a more prominent role in decision making.

Discussion

As noted above, Alternative 1NR would be very beneficial to the natural environment in Glenn County, assuming that funds could be found to carry out the numerous programs and also maintain County government. County revenues would undoubtedly decline as additional land and value was taken from the tax rolls. Service obligations, however, may also be relaxed, as development that occurs is forced into compact and higher density patterns in proximity to existing developed areas.

The size and importance of agriculture would likely decline without being replaced with anything of comparable economic value. Because jobs would also be lost as agriculture and growth opportunities declined, the social consequences would be considerable. Fewer jobs would be generated and burdens on social service agencies would likely increase, with fewer dollars available to County government to pay for those services. An alternative which emphasizes preservation without also creating new economic opportunities may have long term adverse consequences, including an inability to maintain this approach without impoverishing the County. Short term impacts will be more difficult to determine since the various programs and impacts described are incremental in nature. The full impact of some actions will not be known for several years.

Quality of life in Glenn County, if viewed in terms of economic opportunity and standard of living, will likely diminish under this scenario. However, quality of life, if viewed from a broader geographic perspective, can be viewed as improved as fish and wildlife, wetlands and other natural features are preserved and enhanced for the enjoyment of present and future generations. Other positive aspects of this approach include concentric and compact growth

concepts as well as energy conservation measures. In general, however, the approach does not provide sufficient benefits on which Glenn County can stake its economic and social future.

Alternative 2NR

Description

This alternative accommodates preservation and conservation of natural resources while providing sufficient flexibility to allow for physical and economic growth. Decisions concerning preservation of natural areas are influenced more by local priorities than those established at the State and federal level. Strong protection measures are built into various forms of economic activity, but the emphasis is on finding ways to preserve agriculture and accommodate growth and development, while still protecting significant natural areas in Glenn County. Dialogue and cooperation with other levels of government are stressed and agreement is sought on limits of land acquisition activities.

The Williamson Act receives strong support under this scenario in recognition of its value in preserving agricultural lands. Areas along the I-5 Corridor and adjacent to growth centers, however, would be examined to determine if the use of certain lands for other forms of economic activity outweighs their present agricultural value. Full reimbursement of tax loss resulting from Williamson Act implementation would continue to be a high priority. A dairy attraction program along with other efforts to diversify the county's agricultural sector would be pursued, recognizing that standards for siting of dairies and their development need to be carefully crafted to assure that environmental problems are avoided.

Urban limit lines are an important tool under this approach, permitting communities to shape and contain their urban area in such a way that minimum amounts of high value agricultural lands are disturbed and natural areas are avoided. The concept of infill is promoted, but it is also recognized that peripheral expansion provides unique and competitive economic development opportunities. Rural residential activity is confined to already established areas on the valley floor, and foothill areas are examined as possible alternative locations for large lot homesites. The concept of "new towns" is endorsed under this alternative as long as sites under consideration are adequately buffered from agriculture and natural areas and have no adverse impact on these resources. In order to assure compatibility, extensive front-end planning of such communities would occur, including development of specific plans.

Other agricultural preservation tools would be utilized, when appropriate, to retain agricultural land, including transfer of development rights, conservation easements, exclusive agricultural zoning and minimum parcel sizes.

Exportation of ground and surface water would be discouraged under this alternative. Local domestic and agricultural use of water would be given the highest priorities. Groundwater recharge areas would be carefully protected, and the type of development occurring in such areas would be closely reviewed, to assure that excessive overcovering does not occur and that the risk

of pollution of the aquifer is minimized. Septic systems would be discouraged in such areas, and sewage collection systems would be planned where densities warrant.

Watershed areas would be protected through adoption of standards for development on such lands. Development on steeply sloping terrain would be discouraged. New reservoirs would be given consideration under this scenario as long as potential adverse impacts could be mitigated.

The County would work with wildlife agencies and groups to identify critical habitat in Glenn County. A variety of tools would be used for its protection, including purchase in some instances. Agreement would be sought on areas needing protection and the level of protection required. A plan would be developed, publicly debated and ultimately adopted by all parties. Membership would be requested on the Sacramento Valley Bioregional Regional Council in order to protect Glenn County's interests. Any plan, including acquisition of fee title or farming rights, would include a mechanism for reimbursement of local tax and economic loss.

Riparian areas would be afforded protection and the E-M (Extractive Industrial) Zone would be eliminated or modified to provide greater protection to Stony Creek. Aggregate mining would continue to be treated as an integral part of the county's economic mix, however, standards for such activity would be carefully reviewed and adequate reclamation plans and securities would be required.

Hunting opportunities would be expanded in the County to the extent practical. Strong support would be given to pay-to-hunt enterprises, and agriculture would be encouraged to include fish and game management in its land steward activities. Flooding of rice fields in winter months would be supported not only as an assist to wintering waterfowl but also as a possible alternative to rice straw burning.

Timberlands would be viewed from a multiple use perspective. Recreational and other non-timber uses of private timberlands would be considered and encouraged, subject to a determination that the development poses no unmitigated service burdens on the County and does not create harm to the watershed. Public acquisition of inholdings by the National Forest would be resisted due to the loss in property tax revenues to the County.

Continued development of gas fields would be encouraged, and energy conservation in building construction and design of communities would be promoted. Infill, clustering and alternative modes of transportation would be given consideration and implemented, where feasible, but not to the exclusion of other forms of development and movement.

Historical preservation, scenic highways and cultural resource protection and recovery would continue to be discussed with decisions made at some future time as to their relative priority in Glenn County.

Discussion

Alternative 2NR recognizes that both use and protection of natural resources are important to the County and the well being of its residents. Priorities are established under this scenario which provide for growth in the local economy and the focus is placed on quality of life for residents of Glenn County. Priorities established by other levels of government, although recognized and dealt with realistically, are critically analyzed in terms of benefit or harm to Glenn County. Changes in those priorities and compensation for their impact is pursued.

Over time, County revenues will increase under this scenario. Short term impacts will be difficult to measure but long term impacts should be positive. Service impacts to the County and districts will, however, increase with the potential for service demands in new areas not previously requiring services.

Additional agricultural land will be lost to urbanization and some land now under Williamson Act may be removed. Conflicts with agricultural operations may increase and less area will be permanently set aside for fish and wildlife. Although agriculture may lose some acreage, it is not anticipated that it would decline in any significant sense. New high value agriculturally related activities, such as dairies, would be attracted to the County which would help offset the value of land lost to other uses.

Some existing natural areas may be lost, however, it is envisioned that substantial area will still be preserved based on agreement among the various agencies and the County. Growth may be somewhat more scattered than under 1NR and this will have some additional impact on natural resources as travel and road construction are increased.

Additional jobs would be generated under this scenario and burdens to social service agencies should decline. Communities should become more attractive places to live as the County applies higher standards to development and more jobs are generated.

In general, the approach strikes a middle ground with the County taking an assertive and leadership role in shepherding its natural resources, recognizing that its role is to protect and enhance the quality of life in Glenn County.

Alternative 3NR

Description

This alternative places emphasis on consumption and use of natural resources. Efforts to preserve natural areas, regulate aggregate mining and exportation of ground and surface water would be given very low priority. Cooperation with State and federal agencies would be limited as Glenn County maintained its independence and that of its residents. Less regulation would be viewed as preferable to more regulation.

The County would continue to administer the Williamson Act although County actions would permit ready cancellation by individual property owners. Agriculture would also continue to receive support, however, the County would neither work to preserve agricultural land nor to remove it from protection, allowing individual property owners to make those decisions. Present

agricultural zoning could be weakened through amendments and variances, upon property owner request. Dairies would be encouraged to locate in Glenn County but less attention would be paid to standards and locational criteria.

Urban limit lines would be given limited support but the form and character of urbanizing areas would be decided to a great degree by individual developers. Most growth would be peripheral and scattered in nature with the cheapest land being sought out. Adequate service levels would be an afterthought in many instances and the County and districts would generally be playing a catch-up game. Cumulative impacts would be a significant unmitigated problem. Natural areas would play a limited role in County decision making, and State and federal agencies would necessarily have to take the lead in their preservation.

Exportation of water resources would be debated but steps to curtail exportation would be very tentative at the local level. Groundwater management and other regulatory approaches to water resources would be resisted in the county. Water use priorities would be set by individuals competing for water and by State and federal agencies.

Decisions concerning watershed protection would be left to the National Forest and other federal agencies. The County would be reluctant to adopt additional standards regulating development of foothill and mountain lands. The County would strongly oppose the removal of land from the tax rolls by State and federal agencies and communication with such agencies would be limited.

Groundwater recharge areas would be viewed as potential impediments to development and their protection would be of secondary importance. Aggregate mining would continue along historic patterns with few changes in the manner in which it is regulated. Hunting, forestry and gas well activities would be regulated by the State with little local input. Energy conservation measures would be promoted to the extent they were mandated by State and federal law.

Discussion

Obviously this alternative is out of step with contemporary times. Although in the short term additional dollars will be generated locally, in the long term it would have a deleterious effect on the Glenn County environment and its quality of life. Seldom does over-consumption of valuable resources benefit a region longer than for a temporary period of time. As an example, heavy consumption of timber has been reported to be, in part, responsible for the economic decline in northwest timber producing regions. Short term employment benefits and revenue gains will accrue but the long term damage and lack of employment after resources are used up will more than offset earlier gains.

The cost of services will increase under this scenario as development occurs in discontinuous patterns and as little provision is made to recoup those costs. Residents will have to drive longer distances for goods and services as scattered development occurs and additional energy will be consumed by the longer drives.

Without cooperation with State and federal agencies working to protect the natural environment of Glenn County, it is likely that the end result will be even less satisfying to Glenn County than it would be with County participation. This is not only true when dealing with the subject of wildlife preserves, but also when dealing with regulation of other commodities such as timber and natural gas.

8.2 Role of County vs. Cities

In the area of natural resources, most roles are ascribed to the County. County planning is typically seen as resource management and protection while cities are seen as the appropriate agency to provide for urban development. Some counties, however, are actively involved in competing with cities for urban development and attempt to act as both resource protector and urban service provider.

Cities do have a role to play in the preservation of natural resources, in particular agricultural lands, biological resources, water resources, energy conservation and cultural resources. Agricultural lands retention is strongly influenced by urban growth. If cities act irresponsibly, County programs to preserve agricultural lands can be frustrated. Ideally cities and the County should adopt the same set of agricultural lands preservation policies, including agreement on urban limit lines and other growth direction determinations. Mutually agreed upon policy in this critical area can be key to retention of agricultural land. Without it, the County's efforts can be frustrated. This may lead to open competition with cities for development within urban areas, resulting in very inefficient service and development patterns characterized by leapfrog subdivisions and wasted agricultural land.

As cities grow, natural areas and other areas critical to biological resources are encountered. It is important that cities also take such factors into consideration and coordinate their planning and development efforts with the County to assure that comprehensive decision making occurs. Natural areas and biological resources seldom respect political boundaries. Cities and the County can benefit by working together to assure a more comprehensive and systems approach to biological issues, including joint preparation of habitat conservation plans, should such a plan become necessary.

Cities also play a role in protection and use of water resources. Of particular note is the impact city growth has on existing irrigation and water districts, as discussed under Section 3.6 of this Issue Paper. Energy conservation can be greatly influenced by cities in terms of the design and orientation of subdivisions and structures as well as land use patterns. Compact development and placement of shopping and jobs near homes will lead to lower consumption of energy resources. In this regard, the County may wish to request the two cities to adopt portions of its Energy Element now in preparation.

Cultural resources, especially historical resources, are often more prominent in cities than the County. If the County determines to move forward with an historic preservation plan, it would be useful to include the two cities in that effort.

In summary, the County's role is a significant one in the natural resource area due to the expansiveness of its geography and the rural nature of the land use. Cities do, however, share responsibility within their respective areas of interest. It is important that the County and cities coordinate their planning and development efforts to assure the most advantageous outcome for everyone.

SECTION 2 - PUBLIC SAFETY ISSUE PAPER

1.0 INTRODUCTION

The Public Safety Issue Paper is one of three papers prepared to assist in the formulation of an updated Glenn County General Plan. The other two papers are the Natural Resources Issue Paper and the Community Development Issue Paper. Originally published separately as draft documents, the three papers have now been updated and bound into a single volume (Volume II). Each paper focuses on several topics which have been identified for discussion in the General Plan. Topics were suggested either by participants in the process or are identified by the State General Plan Guidelines as matters which must be addressed.

The Public Safety Issue Paper focuses on topics which are related to public health and safety. Included are law enforcement, fire hazards and fire protection, geologic hazards, air quality, flood hazards, water quality, noise, and solid and hazardous waste. The focus is on the impact natural and human-created hazards may have on development and future population, and on programs and ways to direct, enhance and serve new development in a safe and cost-effective fashion. In addition to a discussion of issues, the document contains three alternative public safety scenarios for Glenn County. The draft Public Safety Issue Paper also contained recommended goals, policies, implementation strategies and standards. These goals, policies, implementation strategies and standards have been reviewed and have been incorporated, with modifications, in the Policy Plan document (Volume I).

This series of papers was preceded by the Environmental Setting Technical Paper which was released in September 1991. The Technical Paper contains much of the data on which the present papers are based. Where necessary, that data was supplemented through additional research. References are made to the Technical Paper and it will be helpful for the reader to have access to a copy of the previous document when reviewing the Issue Papers.

2.0 LAW ENFORCEMENT

Background

The Glenn County Sheriff's Office provides law enforcement services within unincorporated areas of Glenn County. Willows and Orland maintain their own police departments, although the County Sheriff provides backup and dispatch services for the two cities. The Mendocino National Forest and Sheriff share law enforcement responsibilities within the National Forest. The Sheriff maintains a headquarters facility in Willows with substations in Orland and Hamilton City. The jail is located in conjunction with the headquarters facility and houses all County prisoners. The California Highway Patrol provides traffic patrol services on all roadways in the unincorporated area.

Specific Concerns

2.1 Maintenance of Adequate Staffing Ratios

The nationally accepted standard for officers to population is 1:1,000. Using unincorporated area population as a measure, the Sheriff maintains 1.2 officers per 1,000 people, which is within the standard. It is desirable to establish a staffing ratio or service level for law enforcement early in the planning process so that future decision making can reflect this important consideration. Otherwise, planning decisions may result in a reduction in future levels of service.

Compared to the nationally recognized standard, it appears that Glenn County presently provides an adequate level of basic law enforcement. According to the Glenn County Sheriff's Department, however, several factors dilute coverage, including staff vacancies which are unfilled due to budgetary constraints, support services which are provided to the two cities, and the geographic distribution of population in Glenn County. Because of the dispersed nature of the population, it is not possible to provide the response and coverage in some areas that the present ratio of officers to population may otherwise imply. More calls are presently received in the Orland/Hamilton City areas, causing other areas of the county to receive fewer patrol hours. As Glenn County becomes more populous, providing an adequate level of law enforcement will become more problematic unless the number of officers is increased and careful consideration is given to the manner in which Glenn County grows.

A critical decision which must come from the General Plan process is whether the County intends to move toward increasing urbanization in the unincorporated area or if such growth will be directed to the two incorporated cities. Directing growth to incorporated areas will reduce the service burden on County law enforcement. It does, however, limit the County's options to expand revenues necessary to improve service levels. It should also be noted that regardless of where growth occurs, the County still houses all prisoners and must provide for the criminal justice system.

2.2 Relationship to City Police Departments and National Forest

The Sheriff and City police presently operate independent forces, although the Sheriff does provide dispatch and other backup for the two cities. As the urban fringe around the two cities grows, areas of overlap in service may develop. Decisions should be made during the planning process as to how to best provide law enforcement to city fringe areas and whether consideration should be given to jurisdictional consolidation. As an alternative, contracting with the adjoining jurisdiction for law enforcement should be considered when contracting would result in greater efficiency in the use of personnel and equipment. A policy directing growth to incorporated cities would resolve future service inefficiencies around incorporated cities.

The Sheriff and Mendocino National Forest presently share law enforcement responsibility within the National Forest pursuant to a Cooperative Law Enforcement Agreement. Due to continued population growth in the State of California and an interest in attracting more visitors to Glenn County, additional law enforcement within the National Forest will undoubtedly be required over time. The cost of additional law enforcement to Glenn County and the National Forest Service must be considered as planning decisions are made.

2.3 Siting of Future Law Enforcement and Correctional Facilities

As Glenn County plans for the future, it will be necessary to ascertain whether or not present law enforcement facilities are in optimal locations or whether shifts in population will result in a need to provide new facilities in faster growing areas. The need for correctional facility space and updating to meet contemporary standards must also be considered in future planning. Although the Sheriff only recently moved into a new jail facility, the Sheriff's office reports that the facility may soon become overcrowded. If new sites are required for correctional facilities during the term of the Plan, that need should be reflected in the Plan in order to avoid future conflict over their location.

There is also a need to address regional and State correctional facilities siting. The General Plan is an appropriate document in which to establish local policy with regard to such facilities. Many arguments have been put forth both pro and con with regard to the economic benefits and social negatives of correctional facilities. In the final analysis, the local community must decide what is most important to it, recognizing that change of the magnitude typically accompanying location of a major institutional facility is both positive and negative.

2.4 Public Safety-Related Land Use Planning

As new development occurs in Glenn County, it is possible to design such development so that criminal activity is discouraged. This can be accomplished through orientation, access, lighting and generally the way development is planned. The subject also relates to the adequacy of law enforcement services in the area in which development is proposed. Law enforcement personnel should be actively involved in land use planning decisions, including the siting and future layout of homes and businesses. In addition, standards which deal with development and impacts on public safety should be included in the general planning effort.

2.5 Law Enforcement Opportunities, Constraints and Conclusions

- Law enforcement in Glenn County is adequate to meet current demands and conforms to generally accepted standards. Budgetary constraints on the County have, however, caused needed positions to go unfilled. If this trend continues, service levels could fall below that which is professionally acceptable and will certainly be perceived as inadequate by the local citizenry. Growth will only compound the problem unless a very careful program is structured which involves law enforcement and considers the impact of future development on services.
- As discussed in Section 5.0 of the Community Development Issue Paper, the County should look to Mello-Roos Community Facilities Districts and other forms of impact and service assessments in order to assure growth and development result in an improved economic environment and law enforcement service commitments the County is capable of meeting.
- If the County determines that it does not wish to increase service levels sufficient to meet the demands of a growing county, new development should be directed to the two incorporated cities with the County avoiding involvement with urban development approvals. Such an

approach may be difficult, however, recognizing potential development pressures in the Hamilton City area due to its proximity to Chico.

- Policies to be included in the new General Plan should clearly identify the role of law enforcement in future planning and assure that the costs of law enforcement are adequately addressed. A service standard should be established, as should the longer term role of County law enforcement in the fringes of the two incorporated cities and the National Forest.
- A clear policy should be set out concerning regional and State correctional facilities. Any future need for or relocation of County correctional facilities should also be addressed.
- Policies and standards which assure that law enforcement needs are considered in the design of new development should be included in the General Plan.

3.0 FIRE HAZARDS AND FIRE PROTECTION

Background

Fire protection in Glenn County is provided by twelve independent fire districts (see Figure 3-1). The City of Willows provides its own fire protection service, maintaining five paid personnel. The other eleven districts are staffed on a volunteer basis. The City of Orland provides its own fire protection. Personnel are provided by the Orland Volunteer Fire Department. On a seasonal basis, wildland fire protection is also provided by the California Department of Forestry (CDF) in the unincorporated foothill and rural areas (see Figure 3-2 for State Responsibility Areas). The U.S. Forest Service is responsible for wildland fire protection within the Mendocino National Forest and maintains an agreement with CDF to provide protection to private holdings. The U.S. Forest Service and CDF are staffed with paid personnel.

Specific Concerns

3.1 Maintenance of Adequate Staffing Ratios

Unlike law enforcement, specific standards for staffing of rural fire agencies do not exist. Each district creates its own standards for staffing based on different needs. As growth takes place, fire protection service in Glenn County could decline unless means are devised to fund expanded services. It is unlikely that the increase in property assessments alone will cover future costs. The impact new development has on fire protection capability must be carefully weighed to assure that service levels do not decline for existing property and that unreasonable risks are not created for developing properties. Additional impacts on funding are created when properties are annexed to the incorporated cities, removing all secured, unsecured and special tax funding from the districts serving the unincorporated areas.

One method of measuring overall fire protection capability is to utilize the ISO (Insurance Service Organization) rating system. The ISO rating is based on several factors such as response time, equipment, size of district, radio equipment, dispatch, maintenance of equipment, water system capability, and several other factors. The ISO uses a Fire Suppression Rating Schedule

with ten public protection classifications with Class 1 receiving the most rate recognition and Class 10 receiving no recognition. The Fire Suppression Rating Schedule defines different levels of public fire suppression capabilities which are reflected in the individual property fire insurance rate establishment procedures. The present ISO rating for residential structures in Glenn County ranges from 4 to 10, with most rural districts having a rating of 8 or 9. Orland generally has a rating of 6 while Willows has a rating of 5.

3.1.1 Future of Fire Districts and Volunteer Fire Departments

Glenn County has along history of volunteer fire protection and there is a strong desire to continue with that tradition. As Glenn County grows fire protection will become increasingly complex. It will, require that volunteer forces be well trained and capable of responding to increasing liability exposure, greater fire hazard from structures, and demands for emergency medical response. Many of the volunteers, in Orland, have already received First Aid and other forms of advanced training as a part of current efforts. The cost and difficulty associated with providing training to volunteer fire forces should be factored into future planning and decision making.

Although it is likely that growth will be relatively moderate during the planning period, with growth also comes the need to examine district boundaries and Spheres of Influence to determine if present arrangements are most efficient and cost-effective. Some districts may be more capable of responding to development pressures than others and this may lead to a desire to adjust boundaries. Other future considerations include consolidation of districts into a countywide district or the assumption of fire protection directly by the County. If future growth is directed to the two incorporated cities, both cities may see a need to operate independent departments. See Section 5.1.6 of the Community Development Issue Paper for a related discussion.

3.1.2 Implications of Non-Volunteer (Paid) Staffing

There are both positive and negative implications of a paid staffing arrangement. The obvious negative result is a considerable increase in local cost for fire protection. It is unlikely the revenues generated from new growth can cover the cost of such a move; therefore, there are cost implications which must be borne by existing residents and property. Unfortunately, this investment may become a necessity if certain economic development opportunities are to be pursued. Also lost is the direct citizen support and participation in an important governmental service, although it is presumed that districts or the County would continue to maintain a smaller volunteer force to supplement paid staff. Another consideration is the typical drop off in volunteer participation as areas grow and become more urbanized.

3.2 Development Exactions for Fire Stations, Equipment, Bridges, In-lieu Fees

Many fire districts in Glenn County receive a tax from each house to help fund their districts, e.g., Hamilton City, Orland and Artois. An issue for the Orland area is that the Orland Rural Fire District loses tax dollars for each house that is annexed into the City of Orland. There

currently is a funding imbalance since most of the calls are in the Orland Rural area and most of the revenue to support the department comes from the City of Orland.

At the present time, Glenn County imposes no fees on new development for fire protection. A necessary element of any program to expand fire service in Glenn County will be additional sources of revenue. AB 1600, adopted by the State Legislature in 1989, provides a procedure for local jurisdictions to follow when establishing one-time fees to pay for additional costs which can be attributed to new development. Capital costs related to fire protection can be recouped in this fashion as long as the fees are tied back to a rational method of cost allocation that assures that new development does not pay an unfair share. The law also requires the funds to be expended within five years. Frequently, fee programs rely on the General Plan and the population distributions, facilities and projected costs developed for such plans as a basis for determining an equitable fee structure. Although fees could be levied on a district-by-district basis, a specific cost allocation and establishment of need would have to be done for each district.

Various forms of assessment district financing can also be used in conjunction with new development, the most common of which is Mello-Roos Community Facilities District financing. With Mello-Roos, the County and a developer typically form the district prior to sale of lots or homes. An assessment is imposed on each lot which is sufficient to pay off the cost of improvements or bonds sold to pay for development of the site, including the costs of fire station, bridge and road construction, as well as purchase of equipment. Under Mello-Roos, only the special tax imposed against property within the district is obligated to pay off debt. Other revenues of the County are protected.

The Marks-Roos Local Bond Pooling Act of 1985 (Government Code Section 6584 et. seq.) allows the pooling of bond issues when there are five or more Mello-Roos bond issues on a ballot. This Act has no revenue function because taxes cannot be levied pursuant to this section of Government Code, and, therefore, does not have bond debt recovery capability.

In the case of fire suppression services, as well as police, the law also allows operations and maintenance costs to be paid for using Mello-Roos financing. This means all fire service costs, including personnel, which are attributable to the new development can be funded in this fashion. It must be recognized, however, that the assessment is for a finite period of time and other more permanent sources of revenue for operations and maintenance must ultimately be found. More permanent sources may include the formation of a County Service Area which could collect a fire service fee for specific services rendered. See Section 5.0 of the Community Development Issue Paper for a more complete discussion of financing opportunities.

3.3 Relationship to City Fire Departments, CDF and National Forest

As noted above, Glenn County presently has twelve separate fire districts with the recent addition of Capay Fire District. Although the two cities participate with their respective districts in fire protection, only the City of Willows provides paid personnel. At present, the cities and the several districts have a close working relationship, including joint dispatch.

The need for more paid staff will arise in the two incorporated cities and their urban fringe before it does elsewhere. As an initial step, creation of distinct and separate urban fire departments, including paid staff, for both the Willows and Orland areas should be explored. The two departments should have a large enough service area to include all urbanized and urbanizing lands around the two cities. The two urban departments would continue to provide dispatch and other support to their rural counterparts.

CDF and Forest Service responsibility areas contain few structures and very low population. Areas such as Elk Creek, Bear Valley and Indian Valley, which contain higher concentrations of people, are also located within a local fire district which supplements the seasonal protection provided by CDF. There is little reason to alter the present arrangement in the CDF coverage area unless the County, through its General Plan process, proposes to significantly change population density or activities in the region.

3.4 Wildland Fire Potential and High Fire Risk Areas

Approximately the western two-thirds of Glenn County is subject to wildland fire potential. The area essentially equates to the region under CDF and Forest Service jurisdiction. Typically such areas pose a substantial fire risk to dwellings and other structures as evidenced by the recent 49er Fire in the Placer/Nevada Counties area and the even more recent Oakland Hills disaster. Clearly such areas pose great risk when people choose to live in them in large numbers. Despite this considerable risk, such areas are typically viewed as attractive places to reside. It is very important that the fire risk and planning for fire safety play an important role when considering residential development in such areas. To this end the State Board of Forestry has adopted Fire Safety Regulations which apply to the State's area of responsibility and which require certain minimum fire safety measures (for a more complete discussion of Fire Safety Regulations, see Section 3.6). In addition, because Glenn County contains State Responsibility Area (SRA) within its boundaries, the draft Safety Element of the General Plan must be submitted to the State Board of Forestry for review and comment.

Fire hazard severity zones have been mapped for the State Responsibility Area within Glenn County (See Figure 3-2). Fire hazard severity zones are intended to show relatively homogeneous areas and are based on fuel loading, slope, fire weather and other factors. The lower grassland areas adjacent to the Valley floor have a rating of "moderate". Adjacent lands to the west, typically characterized by steeper slopes and chaparral, carry a "high" rating, while more heavily forested lands adjacent to and within the Mendocino National Forest have a "very high" rating. The map indicates that the most fire secure areas are in the lower grasslands and in the areas of Newville, Chrome and Elk Creek.

Outside the SRA, risks are more typical in nature and do not pose any unusual constraints to development, assuming that adequate fire service is in place and that standards for development take fire safety into consideration.

A considerable amount of agricultural burning occurs in Glenn County (rice stubble) on the Valley floor; however, such burning is closely controlled to assure that it poses no unusual risk.

Also, rice stubble burning is to be substantially reduced, in accordance with State law, during the next decade.

3.5 Peakload Water Supply Requirements

In order to have an effective fire suppression capability, it is necessary to have an adequate and reliable supply of water. Due to the rural character of the County, water is frequently hauled to the site by tanker. Systems having fire suppression capability are maintained in the unincorporated communities of Hamilton City, Elk Creek, Artois and Butte City. Incorporated areas of Orland and Willows also have water systems with adequate line size and hydrants for fire suppression purposes. There is no reliable information on fire flow quantity in the various communities and such quantity may vary considerably within communities, depending on the well capability and the immediate water main size.

The County currently requires the installation of fire hydrants and establishes minimum fire flows for new developments where water systems are installed. According to the County's Land Division Ordinance, water systems are required in subdivisions containing lots less than 10,000 square feet. Systems are also required in subdivisions with lots greater than 10,000 square feet if no community sewer system is available. Required fire flow is 2,500 gallons per minute for a duration of 10 hours in commercial and industrial areas, 1,500 gallons per minute for a duration of 6 hours in high density residential areas, 1,000 gallons per minute for 4 hours in urban residential subdivision areas, and 750 gallons per minute for 4 hours in rural and estate subdivisions. However, because the most common parcel size in the unincorporated area is 40,000 square feet or larger, few new developments are actually required to install fire hydrants.

In addition to County standards for new systems, the State Public Utilities Commission (PUC) establishes minimum standards for systems not operated by a public entity. In Glenn County, systems subject to PUC jurisdiction include the California Water Service systems in Willows and Hamilton City and the Black Butte Water Company. These standards are found in PUC General Order 103 and are generally intended to apply where standards have not been adopted by a city or county. They are also intended to apply to existing systems that may not measure up; however, compliance is only required when new hook-ups, modifications or extensions of systems are proposed.

Based on the limited information reported for existing systems, substantial deficiencies undoubtedly exist in present fire flow in communities when compared to current standards. It is worth noting that while the supply is potentially adequate, the infrastructure to deliver the desired flows is not present. This condition, however, is not untypical of most rural communities in California. It is also noteworthy that the present development standards place emphasis on water supply for health reasons rather than fire suppression, an approach also typical of other similar areas in California.

In order to properly address the subject of peakload water supply, the General Plan should reinforce present standards for new development and should establish clear policy concerning the location of growth, with the adequacy of water systems for fire suppression purposes factored

into the decision. Means must also be identified in the General Plan for the upgrading of water systems which will be impacted by growth.

3.6 Fire Safety-Related Land Use Planning

Similar to public safety, jurisdictions should plan with fire safety and prevention in mind. The subject is a mandatory requirement in the Safety Element of the General Plan, which must address minimum road widths, evacuation routes, clearances around structures and water supply. Water supply has been discussed separately under Section 3.5.

Fire safety concerns require special attention in areas of wildland fire potential where limited access and vegetation buildup pose substantial threat in the event of fire. The State Board of Forestry's adopted Fire Safety Regulations apply in such areas. Effective May 30, 1991, counties and cities are required to bring local standards into compliance with the State's regulations. Glenn County is presently in the process of reviewing local standards for compliance with the State requirements. The State's regulations cover the following general topics:

- Emergency Access Standards
- Signing and Addressing Standards
- Emergency Water Supply Standards
- Fuel Modification and Defensible Space Standards

The County's review has identified several areas requiring attention including modifications to certain local road standards, creation of standards for private driveways, gate entrance standards, road signage and house numbering standards, additional fire hydrant standards and setback requirements. Of special note is the requirement to have a house numbering system and to assign addresses to all new structures. Although the requirements apply only within areas of State Responsibility, implementation of the new standards will have implications outside the SRA as the County focuses on such subjects as house numbering.

The State General Plan Guidelines recommend the following planning standards be applied to areas with wildland fire potential:

- **Access and Evacuation Routes:** There should be sufficient access for emergency vehicles and for the evacuation of residents. Two or more routes of access should be provided, preferably on different sides of the development.
- **Road and Structural Identification:** All roads in wildland fire areas should be well marked and homes should have addresses in plain view.

- **Roadway Widths:** Roadways should allow for two-way traffic with room for parking on at least one side.
- **Water Supply:** There should be sufficient water supply for fire suppression units in the event of a wildland fire.

Although these standards may be useful as guidelines, the new SRA standards are much more specific and will guide discussion in the SRA.

3.6.1 Minimum Road Widths

The County presently requires new development to dedicate and improve streets to minimum standards. Those standards typically include a minimum 60-foot right-of-way width for both public and private roads serving residential development and a surfaced area ranging from 40 feet in width for most public roads to 20 feet in width for private roads serving four or fewer lots greater than 5 acres in size. The only surfacing required for private roads which serve four or fewer parcels is 0.5 feet of aggregate base. In areas of the County containing gravelly soils, this typically results in no road improvements being required. Forty-foot radius turnarounds are required at the end of roads and the length of dead end roadways is limited based on the number of lots served. The typical residential roadway in Glenn County built in accordance with present standards will satisfy the above suggested standard for two lanes of traffic and parking on one side; however, the narrowest private road (20 feet of surfaced width) will not. In addition, the Fire Safety Regulations will require that minimum standards be modified to provide for turnouts and to establish minimum standards for private driveways.

3.6.2 Access and Evacuation Routes

County regulations address the question of access and require a public or private road meeting minimum standards to all lots. Present regulations do not specify the numbers of access points to a development or the location of access, as recommended by the General Plan Guidelines.

3.6.3 Clearance Around Structures

Within State Responsibility Areas, cleared fire breaks a minimum of 30 feet in width are required around all occupied structures. In addition, the new Fire Safety Regulations require a 30-foot setback from property lines and the center of roads in order to provide space on the same property for the necessary clearances. Outside State Responsibility Areas, there is no requirement for vegetation clearance.

3.6.4 Road and Structural Identification

Roadways in Glenn County are presently marked; however, they do not comply with the specifics of the new Fire Safety Regulations. Residences are not numbered in accordance with a countywide scheme, as now required by the Fire Safety Regulations, making it very difficult to properly identify the location of structures in the event of a fire. In response to the Fire Safety Regulations, and as Glenn County becomes more populous, it will be necessary to create a

countywide house numbering system which will allow for ready identification of a residence's location. This will avoid confusion, save time and potentially avoid loss of life.

3.6.5 Open Space for Fuel Break and Fuel Reduction Zones, Helispots and Fire Access

With proper planning, open spaces within developments can be used to separate structures from areas of heavy fuel. In addition, heavy fuel areas can be removed to create open spaces and to provide areas for helicopters and other emergency equipment to congregate. Such concepts should be applied whenever development is proposed in areas evidencing high or very high fire risk. The new Fire Safety Regulations encourage use of "greenbelts" as a part of development plans, with the greenbelts providing separation between wildland fuels and structures.

3.7 Emergency Response Plan

In September 1972, the Glenn County Board of Supervisors adopted Ordinance No. 553 which created the Glenn County Disaster Council and outlined its powers and duties as well as those of the Director and Assistant Director of Emergency Services. One responsibility of the Council was the development of an Emergency Plan for the County. A Multihazard Functional Plan was adopted in 1986 under the authorization of the California Emergency Services Act. Considered a preparedness document, the Plan is divided into three parts as follows:

- Part One is the Basic Plan which provides overall organizational and operational concepts for responding to various types of identified hazards that may impact the jurisdiction.
- Part Two includes eleven functional Annexes which describe the emergency response organization. Each Annex is supported by Appendices that provide Emergency Action Checklists for hazard-specific responses.
- Part Three contains operational data such as listings of resources, key personnel, essential facilities (lodging, feeding, fallout shelters, etc.), contacts, and other data needed for conducting emergency operations.

It is intended that individuals and agencies assigned emergency responsibilities as stated in the Plan prepare appropriate supporting plans and related Standing Operating Procedures, periodically review and update alerting procedures and resource listings, and maintain an acceptable level of preparedness to implement portions or all of the Plan.

The Government Code specifies that the General Plan must address evacuation routes and critical facilities (those facilities that either provide emergency services or house or serve people injured or killed during an emergency). The Emergency Response Plan identifies the following evacuation routes in the event of flood or dam failure:

- East to West or West to East

State Route 32

County Road 24
State Route 162
County Road 60
County Roads 308 and 309
County Road 200
County Road 35
County Road 70

- South to North and North to South

State Route 45
County Road 99
County Road D
County Road 306
Corning Road
Interstate 5

Although the Plan does not specifically identify critical facilities, such facilities should include Glenn General Hospital and schools where people may gather and which relief agencies may use as points for distribution of supplies and services.

The General Plan should be reflective of and supportive of the Emergency Response Plan, and the County should work with the Glenn County Disaster Council and the Director of Emergency Services to update the Plan as needed.

3.8 Fire Hazards and Fire Protection Opportunities, Constraints and Conclusions

- As the County grows, fire protection service could decline unless means are devised to fund expanded services. It is unlikely that the increase in property assessments alone will cover future costs. The impact of new development on fire protection capability should be carefully weighed to assure that service levels do not decline for existing property and that unreasonable risks are not created for developing properties.
- The County should establish minimum levels of service for fire protection. One approach would be to use ISO ratings, with a goal of no less than a rating of 8 for rural areas and a rating of 5 for urbanized areas.
- LAFCo should review and evaluate fire district boundaries to determine if the existing service areas are the most efficient and cost-effective. Partial consolidation and more direct County involvement may be necessary if an adequate level of service, sufficient to support economic development, is to be present.

- The County should look at various forms of voter approved assessment district financing for new development to fund new fire stations, equipment and personnel in order to assure growth and development do not exceed service capacity.
- Policies to be included in the new General Plan should clearly identify the role of fire protection in future planning and assure that the costs of providing adequate fire protection are addressed.
- Policies and standards which assure that fire protection needs are considered in the design of new development should be included in the General Plan. To be considered are minimum road widths, evacuation routes, clearances around structures, water supply, and type of construction.
- If the County, through the General Plan process, proposes to significantly change population density or activities in the areas currently under CDF and Forest Service responsibility, consideration should be given to consolidation of responsibility.
- Fire risk and safety planning should play an important role when considering residential development in areas subject to potential wildland fires.
- Substantial deficiencies exist in present community fire flow when compared to current County standards. Policies should be included in the General Plan which reinforce present water supply standards for new development and which establish clear policy concerning the location of growth and its impact on peakload water supply. Means must also be identified in the General Plan to address the cost of upgrading water systems which will be impacted by growth.
- State law requires the County to bring its local ordinances into compliance with the State's Fire Safety Regulations for the SRA. This will require certain changes in standards and will also require the County to number all future structures in the SRA. The County is currently awaiting approval by the State Department of Forestry and Fire Protection of proposed changes in the Glenn County Code. The General Plan should establish policy on countywide house numbering which can be implemented as an adjunct to Fire Safety Regulations compliance.
- The General Plan should be reflective of and supportive of the Emergency Response Plan. In addition, the General Plan should recognize the need to periodically update the Emergency Response Plan.

4.0 GEOLOGIC HAZARDS

Background

The Government Code specifies that the General Plan must address the protection of the community from any unreasonable risks associated with the effects of such hazards as

seismically induced surface rupture, ground shaking, ground failure, slope instability, subsidence and other geologic hazards. These hazards must be identified, defined and mapped, and policies and standards incorporated into the General Plan which address such hazards.

Geologic hazards in Glenn County include the potential for landslides, subsidence, erosion and soil expansion. Glenn County is in a relatively inactive seismic area when compared to other portions of California such as the San Francisco Bay area and the Los Angeles Basin.

Specific Concerns

4.1 Prevention, Avoidance, Control and/or Correction of:

4.1.1 Soil Erosion

Different types of soil erosion have been identified in Glenn County by the U.S. Soil Conservation Service. Sheet and rill erosion is prevalent in the foothill region of the county, particularly where dryland farming occurs. Sheet and rill erosion results from rainfall which causes soil dislodgement and transport over a large area. It can be reduced through changes in farming practice, and in rangeland areas, through fencing, reseeding, water development, grazing management, and mechanical soil treatment to aerate badly compacted soils. As new construction occurs in foothill areas, native soils are disturbed in order to create roads and building pads. Sheet and rill erosion will occur on disturbed soils if they are not properly graded and seeded to protect them from rainfall.

Gully erosion also occurs in foothill areas. This form of erosion is caused by infrequent and large volumes of water coursing through otherwise dry or low flow waterways. Overall watershed management can help prevent gully erosion while planting of vegetation and other forms of slope stabilization can help reduce already occurring gully erosion. As development occurs in foothill areas, care should be taken to assure that intermittent and perennial streamcourses are protected through setbacks and left undisturbed, to the extent practical. Where encroachments cannot be avoided, a strong program of replanting and slope stabilization needs to accompany development proposals.

Streambank erosion occurs both in the foothills and on the valley floor. It is aggravated by livestock activity, recreation and development. Setbacks from streamcourses along with programs for streambank stabilization should be incorporated into the planning process to avoid this concern. Another common form of erosion is wind erosion. The Soil Conservation Service reports, however, that wind erosion is not known to be a problem in Glenn County.

In general, erosion may be expected to occur in Glenn County where protective vegetation is removed by construction, fire, cultivation, livestock grazing or other activity. Factors that contribute to erosion include topography, rainfall, and soil type. As a consequence, erosion hazard is highest in the western foothill and mountain region and lowest in the eastern flatter portion of the county (See Figure 4-1). In order to protect the public health and safety, the County should consider requiring erosion control plans as a part of the development approval

process for all property where public and/or private improvements are to be placed on sloping land.

The Land Division Ordinance of Glenn County presently includes language to ensure that preventive measures such as vegetation plantings and special slope treatments may be required when cut and fill activities are necessary for land division and subdivisions. The requirements, however, should be made more specific and broadened to include other development activities.

4.1.2 Landslides

The areas of highest apparent landslide potential in the county generally correlate with relief. Those areas having the highest potential, therefore, occur in the mountainous western portion of the county, while areas with the least potential occur in the lower relief eastern portion of the county. Figure 4-2 shows areas ranked with regard to relative potential for landslides. The foothill region has a moderate rating of 3 while the more westerly mountains have a higher rating of 5. The area of greatest landslide potential is primarily within the Mendocino National Forest and is not generally threatened with development. When development is proposed within an area with a high rating for landslides, a site specific investigation by a qualified geologist and engineer should be performed prior to approval of such development.

4.1.3 Subsidence

Potential subsidence areas occur in the eastern portion of the county where extensive groundwater withdrawals have occurred. Extraction of natural gas from reservoirs located in these same areas can also contribute to local subsidence of the land surface (see Figure 4-3). Available information has not pinpointed any known areas of subsidence within Glenn County although they do occur in neighboring counties.

The problem is potentially a widespread one, affecting the entire valley floor. Areas of heavy groundwater and natural gas withdrawal should be monitored to determine the extent of the problem in Glenn County. Contemporary building practices, as defined in the Uniform Building Code (UBC), will normally protect structures from the effects of subsidence as it may occur in Glenn County. Greatly increased withdrawals of groundwater or natural gas, however, may warrant a review of the potential for subsidence to occur at potentially damaging levels in the future.

4.1.4 Earthquakes

As indicated above, Glenn County is in a relatively inactive seismic area (See Figure 4-4). During the past 100 years, the county has experienced only minor earthquakes within its boundaries and secondary impacts from earthquakes centered out of the area. There are no Alquist-Priolo Special Studies Zones within the County. Such zones highlight active faults that have a potential for ground surface rupture.

The highest historic intensity rating for an earthquake affecting Glenn County is VII as measured by the Modified Mercalli Scale. Refer to Table 4-1 for the Modified Mercalli Intensity Scale.

The UBC establishes standards for structures to survive earthquakes of an intensity of VII with little or no damage.

The UBC also classifies all of Glenn County as being within a Seismic Risk Zone 3. Seismic risk zones are based, in part, on the distribution of earthquakes and the Modified Mercalli Intensity Scale rating of known earthquakes. A Seismic Risk Zone 3 requires that special precautions be taken, in accordance with the UBC, during construction to avoid or minimize earthquake damage.

Table 4.1-1

MODIFIED MERCALLI INTENSITY SCALE OF 1931¹
 (1956 version)²

I.	Not felt. Marginal and long-period effects of large earthquakes
I.	Felt by persons at rest, on upper floors, or favorably paced.
III.	Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.
IV.	Hanging objects swing. Vibration like passing of heavy trucks, or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frames creak.
V.	Felt outdoors, direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.
VI.	Felt by all. Many frightened and run indoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shake visibly, or heard to rustle.
VII.	Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices also unbraced parapets and architectural ornaments. Some cracks in masonry C. Waves on ponds; water turbid with mud. Some slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.
VIII.	Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to Masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.

IX.	General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. General damage to foundations. Frame structures not bolted, shifted off foundations. Frames cracked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas sand and mud ejected, earthquake fountains, sand craters.
X.	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.
XI.	Rails bent greatly. Underground pipelines completely out of service.
XII.	Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

Masonry A,B,C,D. To avoid ambiguity of language, the quality of masonry, brick or otherwise, is specified by the following lettering.

- Masonry A. Good workmanship, mortar, and design, reinforced especially laterally, and bound together by using steel, concrete, etc., designed to resist lateral forces.
- Masonry B. Good workmanship and mortar, reinforced, but not designed in detail to resist lateral forces.
- Masonry C. Ordinary workmanship and mortar, no extreme weaknesses, like failing to lie in at corners, but neither reinforced nor designed against horizontal forces.
- Masonry D. Weak materials, such as adobe, poor mortar, low standards of workmanship; weak horizontally.

1Original 1931 version in Wood, H.O. & Naumann, F. 1931. Modified Mercalli intensity scale of 1931 Seismological Society of American Bulletin v 53 no. 5 p 979-987.

21956 version prepared by Charles F. Richter in Elementary Seismology, 1958 p 137-138. W.H. Freeman & Company.

4.1.5 Expansive Soils

Much of Glenn County has expansive soils (See Figure 4-5). Areas of low expansion potential occur in a small area between Orland and Hamilton City and along the Sacramento River. The remainder of the valley and foothill area is classified as having high expansion potential. The western mountainous portion of the county is classified as having moderate expansion potential.

Expansive soils present potential structural problems for proposed building and other facilities. However, a variety of standard design and construction methods exists to strengthen structures against the stresses caused by expansive soils. These design standards and construction methods are found in the UBC or are addressed through engineer-approved development and design standards included in the Land Division Ordinance.

4.2 Application of Uniform Building Code

The Uniform Building Code (UBC) is the most common method for establishing construction and development standards. The UBC addresses the hazards discussed above. Glenn County is currently operating under the 1988 edition of the UBC with the exception of the electrical code, which is the 1990 edition. The County should update the UBC periodically, as required by law, to ensure that the County's standards are contemporary.

4.3 Geologic Hazards Opportunities, Constraints and Conclusions

- In foothill and mountainous areas of the county, disturbed soils must be protected from the effects of sheet and rill erosion, and gully erosion. The General Plan should contain policy which encourages agricultural practices which are conserving of soil resources and which also requires development to avoid or mitigate practices which may cause soil erosion. Standards should be included which require proper grading and reseeded of disturbed soils and which require avoidance and setbacks from steeply sloping soils and streamcourses. Programs for replanting and slope stabilization should accompany all development proposals involving disturbance of soils on slopes or along streamcourses.
- Valley streamcourses should also be protected, through setbacks and programs for streambank stabilization, where disturbance cannot be avoided.
- The County should consider requiring erosion control plans as a part of the development approval process where public and/or private improvements are to be placed on sloping land. In this fashion, the various concerns can be dealt with in a standardized and consistent fashion.
- Although the present County Land Division Ordinance contains language addressing replanting and special slope treatment, the requirements need to be made more specific and broadened to include other development activities. This could be accomplished through a standardized requirement for an erosion control plan, as discussed above.
- Landslide threats exist primarily within the mountainous region and generally within the jurisdiction of the National Forest. When development is proposed within a high landslide risk area, a site specific investigation by a qualified geologist and engineer should be undertaken.
- Subsidence is linked to groundwater or natural gas withdrawal and is associated with the flatlands of the Sacramento Valley. Although no areas of subsidence have been specifically identified in Glenn County, monitoring should be performed in conjunction with gas well and water well production to assure that accurate information is available on which to base future actions.
- Glenn County is in a relatively inactive seismic area. Anticipated seismic activity is within the parameters anticipated by the Uniform Building Code and can be effectively mitigated by Building Code compliance and standard engineering practice.

- Although much of Glenn County contains expansive soils, problems associated with Glenn County soils can be mitigated through Uniform Building Code application and standard engineering practice.

5.0 AIR QUALITY

Background

Air quality standards for Glenn County are set by both the federal government, through the Environmental Protection Agency (EPA), and by the State, through the California Air Resources Board (CARB). Locally, the Glenn County Air Pollution Control District (APCD) is responsible for the planning and maintenance/attainment of these standards. The pollutants in Glenn County for which standards have been established include ozone and particulates (PM10).

Generally, air quality in Glenn County is better than that required by federal standards. The County has never exceeded federal air quality standards, including those set for ozone and PM10. Because of this, EPA has labeled Glenn County as an area of "Prevention of Significant Deterioration" (PSD). This designation is due mainly to the small number of urban-style pollution sources (motor vehicle traffic and industry) and insufficient air quality data from EPA. California air quality standards, however, have been consistently more stringent than federal standards. Glenn County has been designated as a nonattainment area for ozone and PM10 standards by the State. Ambient air quality standards for both California and the nation are shown on Table 5-1.

Table 4.3-1

**TABLE 5-1
AMBIENT AIR QUALITY STANDARDS**

POLLUTANT	AVERAGING TIME	CALIFORNIA STANDARDS ¹		NATIONAL STANDARDS ²		
		CONCENTRATION ³	METHOD ⁴	PRIMARY ^{3,5}	SECONDARY ^{3,6}	METHOD ^{4,7}
Ozone	1 Hour	0.09 ppm (180 ug/m ³)	Ultraviolet Photometry	0.12 ppm (235 ug/m ³)	Same as Primary Std.	Ethylene Dichloride
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m ³)	Non-dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m ³)	-	Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 ug/m ³)		

Nitrogen Dioxide	Annual Average	-	Gas Phase Chemiluminescence	0.053 ppm (100 ug/m3)	Same as Primary Std.	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m3 (0.03 ppm)	-	Pararosaniline
	24 Hour	0.05 ppm (131 ug/m3)		365 ug/m3 (0.14 ppm)	-	
	3 Hour	-		-	1300 ug/m3 (0.5 ppm)	
	1 Hour	0.25 ppm (655 ug/m3)		-	-	
Suspended Particulate Matter (PM10)	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler and Gravimetric Analysis	-	-	-
	24 Hour	50 ug/m3		150 ug/m3	Same as Primary Stds.	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	-		-		
Sulfates	24 Hour	25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 Day Average	1.5 ug/m3	Atomic Absorption	-	-	Atomic Absorption
	Calendar Quarter	-		1.5 ug/m3	Same as Primary Std.	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydroxide STRactan	-	-	-

Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility ⁹ to less than 10 miles when the relative humidity is less than 70%		-	-	-

Source: State of California, Air Resources Board, November, 1989.

1. California standards for ozone, carbon monoxide, sulfur dioxide (1 hour), nitrogen dioxide and particulate matter - PM10, are values that are not to be exceeded. The sulfates, lead, hydrogen sulfide, vinyl chloride, and visibility reducing particles standards are not to be equaled or exceeded.

2. National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. At locations where the state standards for ozone and/or suspended particulate matter are violated. National standards apply elsewhere.

9. Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

Specific Concerns

5.1 Compliance with State Standards and California Clean Air Act

Passed in 1988, the California Clean Air Act (CCAA) contains guidelines for the attainment of air quality goals that are much more stringent than the federal standards. The CCAA also expands the authority of both the California Air Resources Board (CARB) and local Air Quality Management Districts (AQMDs), especially where a district has been found to be in "nonattainment" of state air quality standards. The CARB regulates statewide sources of pollutants such as mobile sources and fuels, consumer products, paints and coatings, etc. The local AQMDs regulate sources within the districts such as stationary sources, indirect sources, and agricultural sources.

The CCAA requires that Air Quality Attainment Plans be prepared and designed to achieve a reduction in district-wide emissions of five percent or more per year for each nonattainment pollutant or its precursors, averaged every consecutive three-year period. The Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin, of which Glenn County is a part, is discussed in Section 5.5 of this Issue Paper.

State PM10 standards are exceeded mainly during the fall and spring, however there are PM10 exceedances year round. Probable sources are the agricultural burning of field crops and orchard waste, cultivating and harvesting of crops, and driving on unpaved roads. A contributing factor are the prevailing wind patterns which transport pollutants from the Sacramento Metropolitan Area to the north Sacramento Valley Air Basin. The exceedances of ozone standards occur mainly during the warmer months of May through October. The transport of ozone and/or its precursors from the broader Sacramento area to the upper Sacramento Valley occurred on at least 57 of the 63 days when the ozone standard was exceeded during 1986 through 1988 in the Upper Sacramento Valley.

5.2 Phase-out of Agricultural Waste Burning

The Connelly-Areias-Chandler Rice Straw Burning Reduction Act of 1991 requires the phasing out of rice straw burning beginning in 1992 with incremental reductions over the next seven years. By the year 2000, the maximum annual allocation of rice straw that can be burned is 25 percent of the planted total of 125,000 acres, whichever is less, for the entire Sacramento Valley Air Basin. This mandatory reduction should substantially decrease the generation of PM10.

5.3 Gas Well Compressor Emissions

Natural gas well compressors are primarily fueled by natural gas in Glenn County. Alternative fuels include diesel as well as electrical power. Engines burning natural gas and used in oil and gas exploration and extraction require issuance of a "Permit to Operate" from the Glenn County Air Pollution Control District (APCD). Emissions from natural gas compressors have been viewed as a problem in the county, primarily because operators were not obtaining the required permits. The APCD now reports that this problem has been largely corrected.

Emissions from gas well compressors are a source of nitrous oxide (NOx) which contributes to the production of photochemical smog. Natural gas is the most efficient and cleanest burning of

the hydrocarbon fuels available. Its continued use is viewed as the best available fuel source for the engines.

5.4 Consistency with Air Quality Attainment Plan

In compliance with the California Clean Air Act of 1988, an Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin (NSVAB) has been prepared and submitted to the California Air Resources Board. The NSVAB includes the counties of Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba. The Plan is designed to achieve a reduction in districtwide emissions of five percent or more per year for each non-attainment pollutant or its precursors, averaged every consecutive three-year period. By law, the five percent requirement is calculated against the 1987 actual emission level of each nonattainment pollutant or its precursor.

According to the Plan, a five percent reduction of the pollutant levels cannot be demonstrated, as the control efficiencies and cost-effectiveness are not available for many of the proposed control strategies. The Plan states that it does, however, include every feasible control measure and a schedule of adoption for the control measures. A complete listing of these control measures can be found in Table 5-2 along with the ranking of the measures and implementation schedule.

Table 5.4-1

TABLE 5-2

**NORTHERN SACRAMENTO VALLEY AIR BASIN,
1991 AIR QUALITY ATTAINMENT PLAN**

As Adopted by the Glenn County Air Pollution Control Board 7/16/91

LIST OF FEASIBLE MEASURES FOR STATIONARY SOURCES

CONTROL MEASURES	APPLICABLE DISTRICTS	ADOPTION SCHEDULE RANKING	*CONTROL EFFICIENCY	*COST EFFECT
New source review, Indirect source review				
New source review measures	All	1	No Calc	No Calc
Indirect source review measures	All extent varies	1	No Calc	No Calc
Transportation control measures	All extent varies	1	No Calc	No Calc
NOX related control measures				
Cement Kilns	Shasta	2	50%	\$2000 /Ton
Crude oil pipeline heaters	N/A	N/A	N/A	N/A

Electric utility gas turbines	All	3	60%	\$7500 /Ton
Glass melting furnaces	All	5	45%	\$4000 /Ton
Industrial boilers	All	2	50%	\$9000 /Ton
Internal combustion engines	All	2	70%	\$1000 /Ton to \$5000 /Ton
Oil field steam generators	N/A	N/A	N/A	N/A
Refinery heaters and boilers	N/A	N/A	N/A	N/A
Residential space heating	All	4	No Calc	No Calc
Residential water heating	All	4	No Calc	No Calc
Utility boilers (elec. power generation)	All	1	40%	\$9000 /Ton
ROG related control measures				
Aerospace coatings	N/A	N/A	N/A	N/A
Aircraft fuel transfer into storage tanks	All	1	40%	\$2000 /Ton
Architectural coatings	All	3	50%	\$2000 /Ton
Automobile finish coatings	All	3	25%	\$2000 /Ton
Automobile assembly coatings	N/A	N/A	N/A	N/A
Can and coil coatings	All	5	5%	\$2000 /Ton
Cleaning of organic product storage tanks	All	4	95%	No Calc
Coating of metal parts and products	All	3	25%	\$2000 /Ton
Coating of plastic parts	All	3	25%	\$2000 /Ton
Commercial bakeries	N/A	N/A	N/A	N/A
Commercial charbroilers	All	4	90%	\$25000 /Ton

Commercial and industrial adhesives	All	5	70%	\$2000 /Ton
Control of emissions from cyclic oil production wells	N/A	N/A	N/A	N/A
Control of emissions from steam driven oil production wells	N/A	N/A	N/A	N/A
Covers for sumps, pits, and wastewater processing equipment	All	4	90%	\$3000 /Ton
Cutback asphalt	All	1	50%	No Calc
Disposal of organic wastes	All	2	90%	No Calc
Factory surface coating of flatwood paneling	All	4	No Calc	No Calc
Flexible disc manufacturing	All	5	No Calc	No Calc
Floating roof storage tanks	All	1	40%	\$2000 /Ton
Fugitive emission from industrial processes (includes synthetic organic; chemical manufacturing industries, petroleum refining, oil/gas production, gas plants, etc)	All	3	70%	\$1000 /Ton
Gas collection system for sanitary landfills	All	3	No Calc	No Calc
Graphic arts (rotogravure & flexography)	All	3	30%	No Calc
Kelp processing plants	N/A	N/A	N/A	N/A
Marine coatings	All	4	No Calc	No Calc
Marine vessel ballasting and housekeeping	N/A	N/A	N/A	NA/A
Marine vessel loading operations	N/A	N/A	N/A	N/A
Metal furniture and fixture coating operations	All	3	25%	\$2000 /Ton

Natural gas/gasoline processing plants	All	5	No Calc	No Calc
Organic chemical manufacturing	All	5	60%	\$2000 /Ton
Petroleum solvent dry cleaning operations	N/A	N/A	N/A	N/A
Pharmaceutical manufacturing	N/A	N/A	N/A	N/A
Polyester resin operations	All	2	No Calc	No Calc
Polymer resin manufacturing	N/A	N/A	N/A	N/A
Refinery vacuum producing systems, wastewater separators and process unit turnarounds	N/A	N/A	N/A	N/A
Rubber tire manufacturing	N/A	N/A	N/A	N/A
Semiconductor manufacturing Operations	All	5	80%	\$4000 /Ton
Soil decontamination containing VOCs	All	2	No Calc	No Calc
Solvent degreasing	All	2	40%	\$2000 /Ton
Surface coatings of paper and fabrics	All	4	No Calc	No Calc
Synthetic solvent dry cleaning operations	N/A	N/A	N/A	N/A
Vapor recovery systems for gasoline distributors (includes terminals, bulk plants, storage tanks, tank trucks, rail car loading)	All	3	40%	\$2000 /Ton
Vegetable oil manufacturing	All	5	No Calc	No Calc
Wood furniture manufacturing coatings	All	4	20%	\$2000 /Ton
NSVAB AgBurn Plan	All	1	No Calc	No Calc

Multiple and other pollutant (SOX, CO, PM) control				
Clean fuel for fleets (NOX, SOX, CO, PM, ROG)	ARB	N/A	N/A	N/A
Fluid catalytic cracking units (SOX)	N/A	N/A	N/A	N/A
Marine vessel operations (SOX, ROG)	N/A	N/A	N/A	N/A
Petroleum coke calcining (SOX)	N/A	N/A	N/A	N/A
Residential wood combustion (CO, ROG, PM)	All	1	No Calc	No Calc
Sulfur content in fuel (SOX)	N/A	N/A	N/A	N/A

*References for Control Efficiency and Cost Effectiveness - 3/18/91 Draft Bay Area Air Quality Management District Clean Air Plan, "Candidate Control Measure Description".

Adoption Schedule Ranking for feasible control measures:

- All measures ranked #1 shall be proposed and implemented no later than July 1, 1992.
- All measures ranked #2 shall be proposed and implemented no later than July 1, 1993.
- All measures ranked #3 shall be proposed and implemented no later than July 1, 1994 only if attainment of the State ambient air standard for ozone is not achieved by January 1, 1994.
- All measures ranked #4 shall be proposed and implemented no later than July 1, 1995.
- All measures ranked #5 shall be proposed and implemented no later than July 1, 1996.

Although the Air Quality Attainment Plan (AQAP) is not a component of the General Plan, policies and standards should be included within the General Plan which support and are consistent with the adopted AQAP.

5.5 Protection and Enhancement of Air Quality

Air quality control measures have traditionally been applied only to "direct" sources of air pollution: mobile sources (primarily motor vehicles) and stationary sources (such as factories). The California Clean Air Act, through the air quality attainment plans described above, has for the first time extended local control measures to "indirect" sources of air pollution. The indirect source review regulation is intended to reduce and mitigate emissions of non-attainment pollutants or their precursors from sources which generate or attract motor vehicle activity. Such sources include shopping centers, residential and commercial developments, government buildings, medical facilities, office buildings, hospitals, hotels, and restaurants.

While these control measures have not yet been drafted or implemented, it is safe to say that they will focus upon disincentives to development which is dependent upon the private automobile, which discourages use of alternative forms of transportation, and which is not contiguous to existing development. Put another way, such measures should encourage compact, higher density and infill development, project designs which encourage use of transit, bicycle and pedestrian transportation, and proximity of residences to shopping and places of employment.

The NSVAB Air Quality Attainment Plan speculates that features of this regulation may include a requirement for "Best Available Mitigation Measures" from significantly-sized projects, mitigation fees, review fees, and offset requirements. Mitigation fees will be linked to emissions resulting from motor vehicle trips and will be used to reduce mobile source emissions.

The urban limit line concept discussed in the Community Development Issue Paper, if incorporated in the General Plan, can help to achieve the County's air quality goals. Other measures can be implemented through the inclusion of relevant policy in the General Plan as well. These include policies which encourage infill and contiguous development; higher residential densities; mixed land uses; and project design standards that include requirements for transit stops, and pedestrian and bicycle access between residential, shopping, schools, employment centers, and other attractions.

The AQAP also proposes a "new source review rule", or new control measures for new and existing stationary sources. These measures will have implications with regard to the continuing operation of existing businesses and industries, as well as the location of new business and industry in Glenn County. Features of this regulation will include air quality offsets, emission reduction credits, and application of Best Available Control Technology (BACT). The County's economic development strategies need to take these future regulations into consideration. Glenn County is fortunate that its air quality status is less severe than many other areas of California, hence it may be an attractive area for industries to relocate which are subjected to more restrictive regulations elsewhere. By the same token, the County should seek to protect its air quality resource through careful review of new industry.

Transportation control measures are a final type of regulation. While these have yet to be drafted for Glenn County, such measures commonly include trip reduction rules for employers and other sources that attract vehicle trips, management of parking supply and pricing, transit improvement programs, high occupancy vehicle system plans, and development policies to strengthen on-site transit access and motor vehicle trip reduction. Many of these types of regulations are more suitable for urban and metropolitan areas than for a rural, agricultural county such as Glenn, which does not have a transit system at present. The types of measures which Glenn County has proposed in the Air Quality Attainment Plan include government information programs, bicycle parking facilities, and turn restrictions on selected roads.

5.6 Air Quality Opportunities, Constraints and Conclusions

- Although Glenn County air quality meets federal standards, it falls short of meeting State standards for ozone and PM10. Much of the ozone problem is imported from the Sacramento

metropolitan area, over which Glenn County has little control. The particulate problem results in large part from agricultural practices, including cultivation and burning. The County should look to ways to reduce agricultural burning, including rice straw, in accordance with changes in State law.

- The Air Quality Attainment Plan for the northern Sacramento Valley Air Basin does not anticipate that the region will achieve the reductions called for by the California Clean Air Act. Because of the importance of achieving as high a level of compliance as is possible, however, the actions specified in the General Plan should place a very high value on achievement of cleaner air and upon compliance with the measures specified in the Air Quality Attainment Plan.
- Although there has been a perceived problem with gas well compressors, the present practice of using natural gas to power them is the most practical and cleanest fuel available.
- Air quality can be substantially protected and enhanced in Glenn County through land use planning practices which are sensitive to air quality impacts. The General Plan should contain policies and strategies which place people's homes near places of work and shopping and should generally allow design of communities which minimizes automobile trips and maximizes opportunities to walk and bicycle between activity centers.

6.0 FLOOD HAZARDS

Background

As with seismic and other geological hazards, the California Government Code requires that flooding also be addressed. Historical data on flooding, such as frequency and intensity, should be included in the General Plan, as well as the identification and mapping of areas within floodplains or subject to inundation by a 100-year flood.

Flooding becomes a problem when human occupation or activity takes place within the floodplain. Severe flooding is prevented by flood control dams on Stony Creek and the Sacramento River. Most of the mountain and foothill areas drain well, but parts of the valley floor do not. This is due to the relatively level terrain and soils which drain poorly.

Specific Concerns

6.1 Identification of Areas Subject to Flooding

Flood hazard areas in Glenn County have been mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRM). These maps are designed for use for flood insurance purposes only and do not necessarily show all areas subject to flooding. The maps designate zones based on 100-year flood inundation and elevations of the base flood where determined. They also depict areas between the limits of 100-year and 500-year floods and areas of minimal flooding. These maps are also used as a basis for establishing building pad elevations, which will protect new development from the impact of flooding. The most recent

FEMA FIRM maps for Glenn County became effective in September of 1980. The information on these maps indicates that areas subject to flooding are generally north of Willows and in the low areas known as the Colusa and Butte Basins. Figure 6-1 is a composite map of flood hazard areas in Glenn County, based on the FEMA FIRM maps.

Designated floodways have been mapped and adopted by the State Reclamation Board for three areas in Glenn County as follows:

- Sacramento River, adopted 3/12/71
- Colusa Drain, adopted 4/23/71
- Stony Creek, adopted 8/15/78

These floodways include the channels and the adjacent land areas that must be reserved in order to discharge flood waters without cumulatively increasing the water surface elevation more than one foot. The State Board of Reclamation has jurisdiction within designated floodways and supercedes local control. Most development activity is precluded within designated floodways, particularly anything that would restrict the flow of water.

The County Zoning Ordinance contains an FP (Flood Plain) zone. According to County staff, the zone is not presently applied in Glenn County. A zoning classification which is no longer in the Glenn County Zoning Code, DF (Designated Floodway) was formerly applied to properties now zoned E-M (Extractive Industrial) along Stony Creek.

The Colusa Basin has been the subject of further studies by the Department of Water Resources (DWR). The Colusa Basin is protected from flooding by a system of levees along the Sacramento River. These levees have not solved local problems of shallow flooding of large areas of the Basin. During the winter months, runoff from tributary drainage areas backs up behind the levees and along inadequate channels. The studies conducted by DWR have been unable to recommend an economically viable solution to the problem. The most recent study, the Colusa Basin Appraisal (May 1990), reached the same conclusions as the previous studies and could not identify any economically justified flood control solutions. This most recent study did conclude, however, that more emphasis needs to be placed on non-structural measures such as:

- Increase floodplain management efforts.
- Require detention basins for mitigation as part of any significant future development that will increase runoff peaks.
- Encourage on-farm storage of flood waters in detention basins where feasible. If implemented on newly developed lands, this would eliminate (or minimize) the impact of increased runoff.

- Consider acquisition of flood easements or development of wetland habitat where physical protection of lands is economically not justified.

6.1.1 Accuracy of Flood Maps

Concern has been expressed at the local level regarding the accuracy of the FEMA FIRM maps in certain areas of the County. Of particular concern are the areas of Hamilton City, North Willows and West Orland.

According to the Reconnaissance Investigation conducted by the U.S. Army Corps of Engineers for the Hamilton City area, the flood plains from historic flooding, the current Reclamation Board designated 100-year floodway, and the flood plains developed by the Corps are fairly consistent. The Corps flood plains differ from the others due to assumptions regarding the railroad embankment. This study reports that a "striking" difference exists, however, between these three flood plains and the flood plains shown in the FEMA FIRM maps. The FEMA flood plains show significant areas outside of the flood plain that are inside of the other three flood plains. Storm drain improvements have been constructed in these areas that are not reflected on the maps now in effect.

The current FEMA FIRM maps were approved in September 1980; however, initial identification of the various flood areas took place in September 1977. No subsequent revisions to these maps have occurred. If there is disagreement regarding the accuracy of these maps, an appeal process exists by which the flood designations can be challenged. This appeal process is handled on a case-by-case basis, however, as development occurs. Based on past experience with FEMA, a more comprehensive update of the maps is not likely in the near term.

6.2 Flooding from Canals and Irrigation

There is a potential for flooding in the agricultural areas of the county due to the existing irrigation water delivery systems and to present agricultural practices. In some cases the existing irrigation canals are at a higher elevation than roads and residences, which can result in flooding of roads and structures. Field flood irrigation practices in areas of poorly drained soils can also lead to flooding of roads and structures. The potential for this type of flooding would not necessarily be reflected on either the designated floodway maps or the FEMA FIRM maps due to its source.

According to the Colusa Basin Appraisal, drainage inundation problems occur when channel capacity is exceeded by a release of agricultural drainage waters or return flows during the irrigation season. This is the source of potential flooding during the "growing season", defined as the period from April 1 through October 31, which is characterized by cultivation, growing and harvesting of crops, and the delivery and drainage of agricultural water. When unexpected rains occur during the growing season, flooding can occur due to the additional runoff on saturated fields, especially rice fields.

Due to the uncertainties surrounding the potential for flooding from canals and irrigation, the prospects for such flooding to occur need to be carefully weighed when development is proposed and appropriate protective measures built into proposed development plans.

6.3 Siltation of Reservoirs

This subject is discussed in Section 3.4 of the Natural Resources Issue Paper. Of the two larger reservoirs in Glenn County, Black Butte Reservoir was built by the Army Corps of Engineers for flood protection purposes. The accelerated reduction in capacity now resulting from siltation has an effect on long-term flood protection and should be closely monitored.

6.4 Avoidance of Flood Hazards

A variety of ways exist to mitigate flood hazards, including construction of flood protection facilities such as levees, dams, bypasses and piped systems. None, however, is more cost effective and long lasting than simple avoidance of areas subject to flooding. Planning efforts should be directed at avoidance to the extent practical. Due to the nature of Glenn County and existing development patterns, avoidance cannot be achieved in every instance. Flood protection measures are, therefore, a necessary fact of life in much of Glenn County.

6.4.1 Land Use Planning

Flood hazards can be avoided in many cases through the planning process. Development policies, standards and restrictions can be incorporated into the General Plan which restrict or limit development within identified floodplains and floodprone areas. These policies, standards and restrictions can be implemented through zoning and subdivision ordinances by establishing development intensity/density standards and by providing for flood control facilities/improvements through development design where necessary. Building foundation heights are regulated through Chapter 16.24 of the Glenn County Code, "Flood Damage Prevention," for areas identified as Zone A on the FEMA FIRM maps. Installation of storm drain improvements as part of subdivision design will ensure that the introduction of impervious surfaces associated with development will not contribute to flooding potential. The FEMA FIRM and Reclamation Board maps should be closely studied when establishing land use distributions and densities under the revised General Plan.

6.4.2 Storm Drain Maintenance Districts

As described in the Environmental Setting Technical Paper, there are currently two storm drain maintenance districts and one county service area providing storm water disposal in the county. Storm Drain Maintenance District #1 provides service to an area southeast of Orland and maintains a natural drain which runs southeast through the District as needed. District #1 has an independent Board of Directors and staff. Storm Drain Maintenance District #3 is governed by the Board of Supervisors and provides service to an area located between the Kanawha Water District and the Willows Airport. The District maintains a natural drain that traverses the area and drains to the east across the south end of the Willows Airport. This District is administered by the County Public Works Department, as is the North Willows County Service Area. Formerly known as Storm Drain Maintenance District #2, the North Willows County Service Area serves an area northeast of Willows by maintaining natural drains and a pipeline system. A

new County Service Area currently being formed, the Parkway Estates County Service Area, will provide storm drainage for the Parkway Estates development located north of Willows in addition to other improvements and services.

The Reconnaissance Investigation conducted of the Hamilton City area by the U.S. Army Corps of Engineers reports that Hamilton City has a problem with interior drainage. The community's stormwater system drains into the area south of Highway 32. Water is also allowed to drain under Highway 32 by culvert into this area from lands north of the highway.

6.4.3 New Flood Control Facilities

Two small flood control projects are currently under consideration by the County. In the North Willows area, the construction of a retention pond northwest of town is proposed to catch water prior to its entering the developed area.

In Orland, a retention pond is proposed to retain storm water entering the Orland Haigh Field Airport property as a result of overflow from Lely Park. Other similar flood control improvements should be considered by the County as development occurs. Improvements can be financed and constructed by assessment districts and maintained through a countywide service area or through the existing storm drain maintenance districts. No new flood control projects of regional importance are presently expected to be constructed in Glenn County or on streams affecting the County.

A reconnaissance investigation was conducted by the U.S. Army Corps of Engineers to evaluate the potential feasibility of providing additional flood control along the Sacramento River near Hamilton City, and to determine whether there appears to be a federal interest in participating in at least one flood control plan. The study was conducted in response to a letter received from the Board of Supervisors in 1986, and included Hamilton City and the surrounding area located between the Sacramento River and the Glenn-Colusa Canal. According to this study, preliminary geotechnical analysis indicates that the existing levees protecting Hamilton City are structurally inadequate, and that a sudden failure of the levee could result in catastrophic flooding and potential loss of life if the community has not been evacuated.

The study developed and evaluated several alternatives for flood control measures in the study area. Channel dredging, clearing and snagging, and all nonstructural measures were eliminated from further consideration. Structural measures which were evaluated included construction of a setback levee to the north, east and south of Hamilton City, or alternatively, enlarging approximately 17,000 feet of existing right bank (west side) levee along the Sacramento River and construction of 3,400 feet of setback levee south of Hamilton City. The study concluded that none of the alternatives had a benefit-to-cost ratio greater than one, based on federal criteria, and after considering the environmental, social, and economic effects and engineering feasibility of the alternatives, the study concluded that there is no federal interest in participating in further studies for a flood control project in this area.

6.5 Flood Hazards Opportunities, Constraints and Conclusions

- The DF (Designated Floodway) Zone should be restored to the Glenn County Zoning Code, and this zone should be applied to lands located within the designated floodways adopted by the State Reclamation Board. The County should use caution in applying such zoning, however, to avoid potential "take" issues.
- The County should request the U.S. Department of Housing and Urban Development, Federal Insurance Administration to undertake revisions to the FEMA FIRM maps for the areas around Hamilton City, Willows and Orland, to reflect flood control improvements that have been constructed since the 1980 effective date and to resolve conflicts with the designated floodway maps of the State Reclamation Board. The conflict in the Hamilton City area must be resolved so that areas where development may occur can be clearly identified.
- As Glenn County grows, areas of flooding should be avoided as a first priority. Where this is not possible, the necessary flood protection measures should be factored into the cost of development, and a mechanism created up-front to pay for the cost of flood protection.
- There appear to be no flood protection projects of major regional significance on the horizon, and it is anticipated that flood protection measures will be small-scale and incremental during the planning period.

7.0 WATER QUALITY

Background

Water quality in Glenn County is generally good. There have been cases of groundwater contamination reported in the West Orland area due to the use of individual septic tank systems in an area characterized by extremely porous soils and a high water table. With the widespread use of individual septic systems throughout the county, the potential for groundwater contamination in other areas will increase if not properly monitored.

Water quality in the Colusa Basin in the southern part of the county is influenced by several factors including rainfall, irrigation water supplies, cropping patterns and practices, district water management and soil characteristics. According to the California Department of Water Resources (DWR), the quality of water in the basin is generally good to fair because of the excellent quality of the main source, the Sacramento River, and also because most groundwater supplies are considered excellent. Water quality concerns have developed at the lower end of the Basin, however, primarily related to the use of agricultural chemicals. Point sources that drain into the Colusa Basin in Glenn County which influence the water quality within the Drain include wastewater treatment plant effluent from the City of Willows, and food-processing wastes and cooling water effluent from the Glenn Milk Producers Association.

Special Concerns

7.1 Prevention and Control of Pollution of Rivers, Streams, Groundwater and Other Waters

Because the main source of domestic water in Glenn County is groundwater, maintenance of groundwater quality is of primary importance to most county residents. Protection of the groundwater can be difficult in rural areas where the economy is agriculturally-based due to the chemicals used in the growing and processing of agricultural products. The use of individual septic systems, which is common throughout the county, can also contribute to groundwater contamination if not properly installed and monitored. This is particularly true in gravelly soils such as in West Orland. The County has adopted sewage disposal regulations as part of its Land Division Ordinance and Land Development Ordinance. These regulations and septic system limitations within the county are discussed in Section 5.2.4 of the Community Development Issue Paper. The County also has adopted a well ordinance which regulates the installation of water wells. These regulations help prevent problems with new wells, but do not eliminate potential contamination of older, more shallow wells. The County has adopted a separate well ordinance for injection wells used to dispose of salt water from gas well operations. These wells require issuance of a conditional use permit.

Contamination of surface water is regulated through the National Pollutant Discharge Elimination System (NPDES) which is a federal program administered by the Environmental Protection Agency (EPA) and locally by the State Regional Water Quality Control Board (RWQCB). The NPDES permitting process has as its goal the reduction, to the maximum extent practical, of pollutants entering waterways, and a NPDES permit is required for any discharge into surface water.

There are currently two facilities under NPDES permit in Glenn County: the City of Willows wastewater treatment facility which discharges into the north branch of Logan Creek, and Glenn Milk Producers Association which discharges into Walker Creek. NPDES permits must be renewed every five years. Although traditionally applied to point discharge of industrial waste, NPDES permits are now applied to stormwater discharge from industrial sites and may eventually be applied to municipal stormwater systems in Glenn County, where discharge to surface waters occurs.

RWQCB also requires waste discharge permits for any wastewater discharge to land. According to RWQCB, Sacramento Basin Division, there are sixteen permits currently on file for wastewater discharge in Glenn County:

- Butte Creek Rock Company
- CALTRANS Willows Roadside Rest
- California Department of Forestry, Alder Springs Camp
- Concrete Products Industries
- Elk Creek Community Services District
- Fulton Reclamation Facility
- Glenn Milk Producers Association (in addition to NPDES permit)
- Hamilton City Community Services District

- Holly Sugar
- Manville Sales Corporation
- Meadow Glenn Farms
- City of Orland wastewater treatment plant
- Orland Sand and Gravel
- Sun Sweet Dryers
- U.S. Fish and Wildlife Service (Sacramento National Wildlife Refuge)
- Valley Rock Products, Inc.

Guidelines for use of reclaimed wastewater are established under Title 22 of the California Administrative Code (Div. 4, Environmental Health) and are included as part of every waste discharge permit issued by RWQCB. These guidelines set standards for minimum level for treatment and list acceptable uses of treated effluent. These standards are summarized in Table 7-1.

Contamination of ground or surface water from solid waste disposal is also controlled through waste discharge permits issued by RWQCB under Title 23, Chapter 15. Current facilities under permit in Glenn County include: Valley Rock, used for disposal of drilling mud; and the Glenn County Landfill. Discharge requirements for the Von Bargon Ranch, used for septage disposal, are currently under review by RWQCB.

There is also a potential for groundwater contamination from leaking underground storage tanks. Refer to Section 9.8 of this Issue Paper for further discussion of underground storage tanks.

Table 7.1-1

**TABLE 7-1
ACCEPTABLE USES FOR TREATED EFFLUENT**

Standard	Acceptable Uses
Primary effluent (< 0.5 ml/liter/hr settleable solids)	<ul style="list-style-type: none"> • Irrigation of fodder crops • Irrigation of fiber crops • Irrigation of seed crops
Median coliforms < 23 per 100 ml	<ul style="list-style-type: none"> • Dairy pasture • Landscape impoundments
Median coliforms < 23 per 100 ml Maximum coliforms < 240 per 100 ml in any 2 consecutive samples	<ul style="list-style-type: none"> • Landscape irrigation (low public exposure)
Median coliforms < 2.2 per 100 ml	<ul style="list-style-type: none"> • Restricted recreation impoundments

Median coliforms < 2.2 per 100 ml Maximum coliforms < 23 per 100 m. within a 30-day period	<ul style="list-style-type: none"> • Spray irrigation of food crops • Surface irrigation of food crops • Surface irrigation of orchards/vineyards where the fruit does not come in contact with the wastewater • Non-restricted recreation impoundments
Median coliforms < 2.2 per 100 ml Maximum coliforms < 23 per 100 ml in any sample	<ul style="list-style-type: none"> • Irrigation for parks (high public exposure) • Irrigation for playgrounds • Irrigation for schoolyards

Source: California Administrative Code, Title 22, Division 4, "Wastewater Reclamation Criteria".

The present permitting system administered by Regional Water Quality Control Board and the county is sufficient in scope to protect ground and surface waters in the County from non-agricultural sources of pollution, if adequately staffed and implemented. The General Plan should support the present permitting system in order to assure that water resources are properly safeguarded.

7.2 Agricultural Practices and Water Quality

The use of rice herbicides in the Colusa Basin and their impact on the Colusa Basin Drain and the Sacramento River was the subject of much study during the 1980s. Impacts associated with the use of herbicides included the loss of fish in the Colusa Basin Drain and problems with the taste of drinking water downstream in the City of Sacramento. In response to these problems, the Department of Food and Agriculture developed the Rice Herbicide Action Plan in 1984, which uses best management practices to reduce off-site movement of rice herbicides to the Drain and Sacramento River. Best management practices set out in the Plan include: holding times for treated field waters to allow dissipation of the chemicals; restrictions on the number of acres treated with thiobencarb; and incentives to growers using water management practices such as recirculation or tail-water recovery.

This Plan has been revised yearly and has greatly reduced the concentrations of the herbicides molinate and thiobencarb in both the Drain and Sacramento River. According to the DWR Colusa Basin Appraisal, there have been no fish losses observed since implementation of the Plan in 1984, and the careful control and management practices appear to have eliminated most of the problems associated with their use. Drinking water taste problems have also been reduced significantly. DWR's report recommends that the Rice Herbicide Action Plan be continued, including current management practices and monitoring programs, and encourages experimentation with new cultural practices that would reduce the drainage of agricultural chemicals. It is also recommended that the Action Plan be adjusted according to changing practices, and that herbicides and pesticides continue to be monitored weekly.

7.3 Effluent from Wastewater Treatment Plants and Industries

Effluent from wastewater treatment plants and industrial uses is subject to waste discharge permits issued by RWQCB. If wastewater is discharged into surface water, an NPDES permit is required. As indicated in Section 7.1, the only wastewater treatment plant under NPDES permit

is the City of Willows facility for its discharge into Logan Creek. Glenn Milk Producers Association is the only industrial use currently under NPDES permit for its discharge into Walker Creek, and is also under a waste discharge permit for its land discharge of wastewater.

Dischargers in the county subject to a land discharge permit are listed in Section 7.1, including the City of Orland and Hamilton City wastewater treatment plants. Orland and Hamilton City pond wastewater effluent as opposed to discharging it to surface waters.

7.4 Regulation of Land Use in Stream Channels

Regulation of land use in stream channels is frequently handled through the establishment of a designated floodway by the State Board of Reclamation as discussed in Section 6.1. Local jurisdictions can also regulate land use in stream channels through the Zoning Ordinance. At present, Glenn County applies no special zone to stream channels. The E-M (Extractive Industrial) Zone is applied to Stony Creek, but it does not have as its goal the protection of water quality or the water carrying capacity of the channel. The County should seriously consider application of zoning complementary to designated floodway regulations where such floodways exist, and should also consider use of stream channel zoning elsewhere, if the stream channel could be threatened by development or other activity. Such zoning may be complementary to the Streamside Riparian Zoning discussed in the Natural Resources Issue Paper.

7.5 Water Quality Opportunities, Constraints and Conclusions

- Due to the substantial period of time programs have been in place at the federal and State level to protect water quality, a substantial body of regulation already exists. The General Plan should focus on supporting ongoing regulatory and compliance efforts as opposed to new initiatives.
- The County should support continued utilization of the Rice Herbicide Action Plan and other agricultural practices which reduce the threat of surface water pollution from agricultural chemical use.
- The County should consider the application of zoning complementary to designated floodways, where such floodways exist, and should also consider use of stream channel zoning elsewhere, if the stream channel could be threatened by development or other activity.

8.0 NOISE

Background

The General Plan Guidelines require that noise be addressed in the County's General Plan and that major noise sources be identified and quantified. Noise surveys were performed and described in the Environmental Setting Technical Paper. For ease of reference, some of that material is presented here again. Major sources previously identified in Glenn County include vehicular traffic on major roadways, railroad operations, Orland Haigh Field Airport, Willows

Glenn County Airport, industrial sources, agricultural processing facilities, and miscellaneous farming operations.

Specific Concerns

8.1 Evaluation of Existing Noise Conflicts

Some of the noise sources identified in the Environmental Setting Technical Paper are located within close proximity to noise sensitive land uses, including but not limited to residential development, schools and churches. Figures 8-1 and 8-2 show the locations of the existing and future noise contours for the two airports, and Tables 8-1 and 8-2 show the distances to the existing noise contours for major roadways and the railroad.

As a means of evaluating the noise level data contained in Tables 8-1 and 8-2, refer to Table 8-3 for representative noise exposure standards.

Table 8.1-1

**TABLE 8-1
TRAFFIC NOISE CONTOUR DATA
DISTANCE (FEET) FROM CENTER OF ROADWAY
TO Ldn CONTOURS**

Segment	Description	Existing	
		60 dB	65 dB
Interstate 5:			
1	Colusa County Line to S.R. 162	752	349
2	S.R. 162 to County Road 33	872	405
3	County Road 33 to S.R. 32	766	355
4	S.R. 32 to Tehama County Line	750	348
State Route 32:			
5	I-5 to County Road South	163	75
6	County Road South to S.R. 45 S	212	99
7	S.R. 45 S to Butte County Line	228	106
State Route 45:			
8	Colusa County Line to S.R. 162 E	116	54
9	S.R. 162 E to County Line 56	97	45
State Route 45:			
10	County Road 56 to S.R. 162 W	97	45
11	S.R. 162 W to County Road 29	101	47
12	County Road 29 to S.R. 32	391	182
State Route 162:			

13	County Road 307 to County Road 306 N	36	17
14	County Road 306 N to County Road 306 S	49	23
15	County Road 306 S to I-5	92	43
16	I-5 to Willows City Limit West	199	92
17	Willows City Limit East to County Road P	101	47
18	County Road P to S.R. 45 N	71	33

Table 8.1-2

TABLE 8-2

Railroad Noise: Southern Pacific Transportation Company

Distance to Ldn Contour	
60 dB	65 dB
108 feet	50 feet

Table 8.1-3

TABLE 8-3

**MAXIMUM ALLOWABLE NOISE EXPOSURE
TRANSPORTATION NOISE SOURCES**

Land Use	Outdoor Activity Areas ¹ Ldn/CNEL, dB	Interior Spaces Ldn/CNEL, dB Leq, dB ²	
Residential	603	45	--
Transient Lodging	603	45	--
Hospitals, Nursing Homes	603	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	603	--	40
Office Buildings	603	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

¹Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

²As determined for a typical worst-case hour during periods of use.

³Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Based upon noise measurement data collected during the community noise survey for the Environmental Setting Technical Paper, the majority of noise sensitive areas within Glenn County are relatively quiet. Typical noise levels in noise sensitive areas are in the range of 48 dB to 60 dB Ldn. Noise from traffic on local roadways and neighborhood activities is the

controlling factor for background noise levels in most of the county. However, in some cases residential and industrial activities are located close together, as in the case of Holly Sugar Corporation in Hamilton City, and the noise levels produced by the industrial activities may be incompatible with the adjacent land uses.

Agricultural activities which include aerial application aircraft (crop dusters) flying at relatively low levels, and agricultural processing plants, often produce noise levels which may be considered annoying. These operations can occur during the late evening and early morning hours, which increase the chance for adverse public reaction to these activities.

8.1.1 Extent of Noise Problems in the County

The majority of Glenn County is rural. The primary activities in the rural areas are oriented toward agriculture. As noted above, the noise level data collected during the community noise survey indicates that the majority of the county is relatively quiet. Table 8-4 shows the results of the ambient noise survey.

8.2 Avoidance of Future Noise Conflicts

To avoid future noise conflicts, the General Plan needs to provide mechanisms to protect county residents from the harmful and annoying effects of exposure to excessive noise, and to prevent incompatible land uses from encroaching upon existing or planned noise-producing uses. This can be accomplished through the adoption of goals and policies which recognize the importance of noise protection measures, including adequate separations of different land uses, and by implementing a local Noise Control Ordinance.

8.2.1 Protection of Noise-Sensitive Land Uses From Noise-Generating Uses

To protect noise-sensitive land uses from noise-generating uses, criteria should be established to determine what noise levels may be considered to be acceptable at noise-sensitive land uses. There is also a need to establish procedures for determining projected noise levels that may result from proposed noise-producing uses, and for ensuring the compatibility of proposed noise-sensitive uses.

Table 8.2-1

**TABLE 8-4
SUMMARY OF MEASURED NOISE LEVELS AND ESTIMATED
DAY-NIGHT AVERAGE LEVELS (Ldn) IN AREAS
CONTAINING NOISE SENSITIVE LAND USES**

Site	Location	Date	Time	Sound Level, dB					
				L90	L50	L10	Leq	Lmax	Est. Ldn
1	*Near Jensen Park	5/23/91	10:001	48.0	52.0	56.0	53.5	66.5	59.8 dB
		5/23/91	7: 00	49.0	53.0	57.0	55.0	71.5	
		5/24/91	0:00	39.0	42.0	48.0	45.0	55.5	

2	*Near Roosevelt Avenue	5/23/91	11:00	34.0	39.0	51.0	47.5	65.5	54.2 dB
		5/23/91	18:00	37.0	41.0	51.0	48.0	70.0	
		5/14/91	1:00	30.0	33.0	47.0	42.5	56.0	
3	Spence Park	5/23/91	11:40	41.0	43.0	49.0	47.0	64.0	52.5 dB
		5/23/91	22:00	42.0	45.0	47.0	46.0	61.0	
		5/24/91	11:28	41.0	44.0	48.0	46.0	65.5	
4	Road 25 & Road C	5/23/91	12:17	30.0	34.0	40.0	36.5	47.0	51.9 dB
		5/23/91	22:26	41.0	43.0	44.0	42.5	45.0	
		5/24/91	12:29	30.0	36.0	49.0	54.5	77.0	
5	Road 200 & 306	5/23/91	13:23	26.0	29.0	37.0	51.0	75.0	51.9 dB
		5/23/91	22:58	41.0	42.0	43.0	42.5	44.0	
		5/24/91	10:31	26.0	31.0	41.0	52.0	75.0	
6	Elk Creek	5/23/91	14:06	36.0	38.0	53.0	52.0	70.0	58.5 dB
		5/23/91	23:21	46.0	47.0	48.0	47.0	48.0	
		5/24/91	9:54	38.0	40.0	53.0	52.5	72.0	
7	Fruto Road & Road 303	5/23/91	15:31	31.0	38.0	45.0	41.5	57.5	50.9 dB
		5/23/91	23:37	40.0	45.0	46.0	45.0	49.0	
		5/24/91	9:28	31.0	35.0	39.0	36.5	51.0	
8	Road B & Road 60	5/23/91	16:10	33.0	40.0	44.0	51.5	74.5	50.0 dB
		5/23/91	23:50	41.0	42.0	43.0	41.5	44.0	
		5/24/91	8:12	34.0	36.0	40.0	38.5	54.5	
9	Road P	5/23/91	11:00	39.0	42.0	51.0	54.3	75.7	54.1 dB
		5/23/91	23:50	46.0	47.0	48.0	47.5	50.5	
		5/24/91	8:12	47.0	49.0	53.0	52.4	67.8	
10	Road 50	5/23/91	11:40	35.0	39.0	56.0	53.2	70.3	54.4 dB
		5/23/91	23:20	43.0	45.0	46.0	46.6	60.0	
		5/24/91	8:40	38.0	41.0	53.0	51.0	64.5	
11	Open Field East of S.R. 45 Approximately @ Road 37	5/23/91	12:25	35.0	38.0	45.0	41.5	53.0	53.2 dB
		5/23/91	22:50	46.0	47.0	48.0	47.2	50.0	
		5/24/91	8:40	34.0	39.0	48.0	44.2	61.0	
12	South of Intersection of Road 24 and Road V.	5/23/91	13:12	28.0	36.0	48.0	42.7	51.0	58.8 dB
		5/23/91	22:20	51.0	53.0	54.0	53.0	55.8	
		5/24/91	9:55	40.0	43.0	48.0	44.9	53.3	
13	4th and Los Robles in Hamilton City	5/23/91	13:35	36.0	39.0	46.0	46.3	63.0	48.7dB
		5/23/91	22:00	28.0	36.0	41.0	38.9	52.8	
		5/24/92	10:20	42.0	45.0	50.0	50.1	69.0	

* = 24-hour monitoring site

Land use compatibility criteria and noise level standards should be included in the General Plan (See Figure 8-3 and Table 8-5). These criteria and standards are complex in that they account for the type of land use which may be affected by a noise-generating use, time of day at which the noise levels are produced, duration of the noise source, and the type of noise source.

Table 8.2-2

**TABLE 8-5
NOISE LEVEL PERFORMANCE STANDARDS
FOR NEW PROJECTS AFFECTED BY OR INCLUDING NON-
TRANSPORTATION SOURCES**

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Leq, dB	50	45
Maximum level, dB	70	65
Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).		

8.3 Airport Noise and Land Use Compatibility

Comprehensive Land Use Plans have recently been developed and adopted for the Orland Haigh Field Airport and the Willows Glenn County Airport. These documents provide policies specific to land use compatibility within and surrounding the airports.

Land use compatibility criteria for the two airports should be developed as a part of the General Plan process, based upon the Community Noise Equivalent Level (CNEL) descriptor. The CNEL is a 24 hour time-weighted energy average of aircraft noise levels.

8.4 Agricultural/Urban Noise Conflicts

Based upon discussions with the County staff, one of the major noise complaints associated with agriculture results from aerial application aircraft (crop dusters) flying at low altitudes during the early morning hours. The CNEL descriptor does not necessarily reflect perceived annoyance from single noise events of short duration, such as those produced during cropduster overflights.

Sound exposure levels (SEL's) associated with aerial application aircraft during the early morning hours may cause sleep disturbance. Aerial application aircraft generally do not follow any prescribed flight path, and fly at relatively low altitudes.

Noise from agriculture also includes tractors, pumps, and other mechanical equipment. Protection from such noise will best be accomplished through separation of uses. A Right to Farm Ordinance, as discussed in Section 2.1 of the Community Development Issue Paper, although not a noise control tool, can protect agriculture from noise complaints.

8.5 Noise Ordinance

As discussed above, minimization of future noise conflicts and protection of noise sensitive land uses can be substantially aided through adoption of a local Noise Ordinance supported by the General Plan. The following is the text of a suggested Noise Control Ordinance for Glenn County:

DRAFT NOISE CONTROL ORDINANCE

I. *Purpose:*

The County Board of Supervisors declares and finds that excessive noise levels are detrimental to the public health, welfare and safety and contrary to the public interest as follows:

A. *By interfering with sleep, communication, relaxation and the full use of one's property;*

B. *By contributing to hearing impairment and a wide range of adverse physiological stress conditions; and*

C. *By adversely affecting the value of real property.*

It is the intent of this chapter to protect persons from excessive levels of noise within or near a residence, school, church, hospital or public library.

II. *Definitions:*

The following words, phrases and terms as used in this chapter shall have the following meanings:

A. *"Agricultural property" means land used for or devoted to the production of crops and livestock.*

B. *"Ambient noise level" means the composite of noise from all sources excluding the alleged offensive noise. In this context it represents the normal or existing level of environmental noise at a given location for a specified time of the day or night.*

C. *"Construction" means construction, erection, enlargement, alteration, conversion or movement of any building, structures or land together with any scientific surveys associated therewith.*

D. *"Decibel" means a unit for measuring the amplitude of a sound, equal to twenty times the logarithm to the base ten of the ratio of the pressure of the sound measured to the reference pressure, which is twenty micropascals.*

E. *"Emergency Work" means the use of any machinery, equipment, vehicle, manpower or other activity in a short term effort to protect, or restore safe conditions in the community, or work by private or public utilities when restoring utility service.*

F. *"Enforcement officer" means the Planning Director or his duly authorized deputy.*

G. *"Equivalent Hourly Sound Level (Leq)" means the constant sound level that contains the same total energy as the actual time-varying sound level over a one-hour period.*

H. *"Fixed noise source" means a device or machine which creates sounds while fixed or stationary, including but not limited to motor vehicles operated off public roads, and residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.*

I. *"Hospital" means any building or portion thereof used for the accommodation and medical care of the sick, injured or infirm persons and includes rest homes and nursing homes.*

J. *"Impulsive noise" means a noise of short duration, usually less than one second, with an abrupt onset and rapid decay.*

K. *"Intruding noise level" means the sound level created, caused, maintained or originating from an alleged offensive source, measured in decibels, at a specified location while the alleged offensive source is in operation.*

L. *"Mobile noise source" means any noise source other than a fixed noise source.*

M. *"Noise disturbance" means any sound which violates the quantitative standards set forth in this chapter.*

N. *"Residential property" means a parcel of real property which is developed and used either in whole or in part for residential purposes.*

O. *"School" means public or private institutions conducting regular academic instruction at preschool, kindergarten, elementary, secondary or collegiate levels.*

P. *"Simple tone noise" means any noise which is distinctly audible as a single pitch (frequency) or set of pitches as determined by the enforcement officer.*

Q. *"Sound level" or "noise level" means the sound pressure level in decibels as measured with a sound level meter using the A-weighting network. The unit of measurement is referred to herein as dBA.*

R. *"Sound level meter" means an instrument meeting American National Standard Institute Standard S1.4A-1985 for Type 1 or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.*

III. Noise Measurement Criteria:

Any noise measurement made pursuant to the provisions of this chapter shall be made with a sound level meter using the A-weighting network at Slow meter response, except that Fast meter response shall be used for impulsive type sounds. Calibration of the

measurement equipment utilizing an acoustical calibrator shall be performed immediately prior to recording any noise data.

The exterior noise levels shall be measured within fifty feet of the affected residence, school, hospital, church or public library. Where practical, the microphone shall be positioned three to five feet above the ground and away from reflective surfaces.

The interior noise levels shall be measured within the affected dwelling unit, at any number of points at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. The reported interior noise level shall be determined by taking the energy average of the readings taken at the various microphone locations.

IV. Exterior Noise Standards:

A. It is unlawful for any person at any location within the County to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single-or multiple-family residence, school, hospital, church or public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth in Table I.

TABLE I
Exterior Noise Level Standards

<i>Time Period</i>	<i>Allowable Equivalent Hourly Sound Level (Leq)</i>
<i>7 am to 10 pm</i>	<i>50 dBA</i>
<i>10 pm to 7 am</i>	<i>45 dBA</i>

B. In the event the measured ambient noise level exceeds the applicable noise level standard, the applicable standard shall be adjusted so as to equal the ambient noise level.

C. Each of the noise level standards specified above shall be reduced by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

D. Where there is a conflict between noise level standards adjusted in accordance with Sections IV.B. and IV.C., the standard established by IV. B. shall prevail.

E. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards.

F. Table II may be used to determine whether the measured equivalent sound level in a given measurement period will cause the equivalent hourly sound level to exceed the noise level standards of this ordinance. If the measured Leq during a given time period exceeds the level corresponding to the noise standard in the column labeled "Equivalent Hourly Leq," the noise standard shall be considered to have been exceeded.

Example of Table II Usage: The average noise level of an air compressor is measured to be 67 dB within 50 feet of a nearby residence. The measurement was conducted for 4 minutes. Table II indicates that the equivalent hourly noise level would be at least 55 dB Leq at that location, even if the air compressor were turned off for the remainder of the hour.

TABLE II
Short Term Determination of Equivalent Hourly Sound Level (Leq)

<i>Measurement Period (minutes)</i>											<i>Equivalent Hourly Leq, dBA</i>
	<i>Measured Leq, dBA</i>										
											35
											40

level measured while the source is in operation shall be compared to the noise level standards.

F. Table II may be used to determine whether the measured equivalent sound level in a given measurement period will cause the equivalent hourly sound level to exceed the noise level standards of this ordinance. If the measured Leq during a given time period exceeds the level corresponding to the noise standard in the column labeled "Equivalent Hourly Leq," the noise standard shall be considered to have been exceeded.

VI. Noise Source Exemptions:

The following activities shall be exempt from the provisions of this chapter:

A. Activities conducted in public parks, public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events;

B. Any mechanical device, apparatus or equipment used related to or connected with emergency activities or emergency work;

C. Noise sources associated with construction, provided such activities do not take place before seven a.m. or after seven p.m. on any day except Saturday or Sunday, or before eight a.m. or after seven p.m. on Saturday or Sunday.

D. Noise sources associated with the maintenance of residential property provided such activities take place between the hours of seven a.m. and seven p.m. on any day except Saturday or Sunday, or between the hours of eight a.m. and seven p.m. on Saturday or Sunday;

E. Noise sources associated with agricultural activities on agricultural property.

F. Noise sources associated with a lawful commercial or industrial activity caused by mechanical devices or equipment, including air conditioning or refrigeration systems, installed prior to the effective date of this chapter; this exemption shall expire on one year after the effective date of this chapter;

G. Noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities;

H. Noise sources associated with the collection of waste or garbage from property devoted to commercial or industrial uses;

I. Any activity to the extent regulation thereof has been preempted by state or federal law.

VII. *Air Conditioning and Refrigeration:*

Notwithstanding the provisions of Sections IV or V where the intruding noise source when measured as provided in Section III is an air conditioning or refrigeration system or associated equipment installed prior to the effective date of this chapter, the exterior equivalent hourly sound level shall not exceed fifty-five dBA, except where such equipment is exempt from the provisions of this chapter. The exterior equivalent hourly sound level shall not exceed fifty dBA for such equipment installed or in use after one year after the effective date of this chapter.

VIII. *Electrical Substations:*

Notwithstanding the provisions of Sections IV and V, the equivalent hourly sound level produced by sources associated with the operation of electrical substations shall not exceed fifty dBA when measured as provided in Section III.

IX. *Variances:*

A. *The owner or operator of a noise source which the enforcement officer has determined violates any of the provisions of this chapter may file an application with the enforcement officer for variance from strict compliance with any particular provisions of this chapter where such variance will not result in a hazardous condition or a nuisance and strict compliance would be unreasonable in view of all circumstances. The owner or operator shall set forth all actions taken to comply with such provisions, and the reasons why immediate compliance cannot be achieved. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership or fixed sources under common ownership on a single property may be combined into one application.*

B. *Upon receipt of the application and within thirty days, the enforcement officer shall either (1) approve such request in whole or in part, (2) deny the request, or (3) refer the request directly to the Planning Commission for action thereon in accordance with the provisions of this chapter. In the event the variance is approved, reasonable conditions may be imposed which may include restrictions on noise level, noise duration and operating hours, an approved method of achieving compliance and a time schedule for its implementation.*

C. *Factors which the enforcement officer or the Planning Commission must consider shall include but not be limited to the following:*

- 1. Uses of property within the area affected by noise;*
- 2. Factors related to initiating and completing all remedial work;*
- 3. Age and useful life of the existing noise source;*
- 4. The general public interest, welfare and safety.*

D. Within ten (10) days following the decision of the enforcement officer or Planning Commission on an application for a variance, the applicant may appeal the decision to the County Board of Supervisors for a hearing by filing a notice of appeal with the County Clerk. The County Board of Supervisors shall either affirm, modify or reverse the decision of the enforcement officer. Such decisions shall be final and shall be based upon the considerations set forth in this section.

X. *Violation-Enforcement:*

The violation of any of the provisions of this chapter shall be an infraction punishable as provided in Section _____ of this code. The provisions of this chapter may also be enforced by an injunction issued out of the superior court upon suit of the county. Any violation of the provisions of this chapter shall be deemed to be a public nuisance.

The Planning Director shall enforce the provisions of this chapter. Right of entry for inspection shall be as provided in Section _____ of this code.

APPROVED NOISE PREDICTION METHODOLOGY

The following noise prediction methodologies are approved for use in acoustical analyses submitted to Glenn County. Other methodologies may be used if approved by the County Planning Department after review of supporting technical justification.

Traffic Noise:

1. *The Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) is the preferred traffic noise prediction methodology. The CALVENO standardized noise emission factors must be used (published in FHWA-CATL-84/13, "California Vehicle Noise Emission Levels"). Any form of the FHWA Model may be used, such as manual calculation and versions for programmable calculators and computers, including STAMINA.*

2. *Noise barrier insertion loss shall be calculated using the FHWA Model methodology. The effective center frequency of the noise sources shall be assumed to be 550 Hz. Source heights of 0, 2 and 8 feet above roadway centerline shall be assumed for autos, medium trucks and heavy trucks, respectively.*

3. *Noise sensitive receiver locations are assumed to be the back yards of single-family dwellings, and the patios and balconies of multi-family dwellings. The exterior receiver height shall be assumed to be 5 feet above back yard or patio elevation for ground-floor receivers, and 4 feet above balcony elevation for upper-floor receivers. The exterior ground-floor receiver shall be placed 10 feet from the building facade. The exterior upper-floor receiver shall be placed midway from the building facade to the edge of the balcony, and a correction factor of +2 dB shall be applied to account for reflections from the building facade.*

4. For multi-family developments, common outdoor activity areas are also considered to be noise sensitive receiver locations. The assumed exterior receiver height is 5 feet above ground level, and the assumed receiver location is normally in the center of the recreation area.

5. Traffic noise attenuation with distance for ground level receivers should be consistent with an acoustically "soft" site, at 4.5 dB attenuation per doubling of distance. Noise attenuation for receivers and building facades at upper floors, and for receivers overlooking the roadway, should be consistent with an acoustically "hard" site, at 3 dB attenuation per doubling of distance. These assumptions may be modified on the basis of onsite noise measurements at proposed receiver locations and elevations.

6. Noise measurements for traffic noise analyses should include at least one 15-minute sample of daytime traffic noise levels (including the Leq value) under free-flowing traffic conditions, with a concurrent traffic count. Nighttime traffic noise levels may be estimated from 24-hour noise measurement data or published hourly traffic distribution data. For major arterials and highways, continuous hourly noise measurements over a 24-hour period are recommended to describe the effective day/night traffic distribution and to supplement the 15-minute sample(s). Noise measurement sites should be selected to represent proposed receiver locations and representative sound propagation conditions.

7. Existing traffic volume, truck mix and day/night distribution should be obtained from the County Department of Public Works or Caltrans as appropriate. Projected future traffic volume may be obtained from those agencies or the project traffic consultant. Traffic speed shall be assumed to be the posted or projected design speed, unless shown otherwise by observation or noise measurements. Typical traffic data for Glenn County are shown by the FHWA Model input data listed in the Noise Element.

Railroad Noise:

1. The preferred method of predicting railroad noise exposure is to calculate Ldn values at the proposed receiver locations based upon onsite single event and cumulative noise level measurements, assuming noise attenuation of 4.5 dB per doubling of distance for all receiver elevations. Alternative methods include the "Simplified Procedure for Developing Railroad Noise Exposure Contours," prepared by Jack W. Swing of the California Office of Noise Control, and the more detailed procedures prescribed in the Assessment of Noise Environments Around Railroad Operations, Wyle Research Report No. WCR 73-5. Variations in site topography, railroad grade and use of warning horns may require adjustments to the modeling assumptions. For this reason, onsite noise measurements and observations are preferred. The Noise Element lists railroad noise measurement results in the Glenn County.

2. *Noise barrier insertion loss for railroad noise sources should be calculated using standard methods, such as those described by the FHWA Model or in Noise and Vibration Control, by Leo Beranek. Receiver locations for railroad noise exposures are the same as for traffic noise exposures. To account for differences in source heights and frequency content, it may be necessary to determine the relative contribution of different noise sources, such as wheel/rail interaction, locomotives or horns. For a generalized railroad noise source on smooth rails, the effective center frequency of the source may be assumed to be 1000 Hz with a source height of 10 feet above the rail bed. Other assumptions may be used as supported by published data or experimental results.*

3. *Day/night distribution of railroad freight operations may be assumed to be uniform over a 24-hour day, unless otherwise indicated by noise measurements or information from the railroad company. Passenger train operations should be distributed according to the published schedules. The numbers and distribution of freight operations may be obtained from the railroad company dispatcher. Refer to the Noise Element for typical railroad operations in Glenn County.*

4. *Railroad noise measurements should include a representative number of single event noise levels from freight and passenger operations. Noise levels recorded over a 24-hour period are normally sufficient. The data collected should include the Sound Exposure Level (SEL) and maximum sound level (Lmax) due to the passage of the train, and a notation of whether a warning horn or whistle was used. The noise levels due to bells at rail crossings should also be described.*

Aircraft Noise:

1. *Noise produced by aircraft operations at an airport may be described by reference to published noise exposure contours for that airport. If the project site is within the 60 dB CNEL contour of an airport, predicted single event aircraft noise levels at the project site should be described. Predicted single event noise levels may be based upon noise measurements at the project site, or by using the FAA's Integrated Noise Model (INM). Aircraft noise levels should be expressed in terms of the Community Noise Equivalent Level (CNEL) and (where applicable) typical SEL and Lmax values.*

2. *Noise produced by aircraft operations at other than an established airport should be described in terms of predicted Community Noise Equivalent Level (CNEL), SEL and Lmax values. Predicted noise levels may be based upon noise measurements at the project site or other representative locations, or may be predicted using the FAA's Integrated Noise Model (INM). Helicopter noise level predictions may also be based upon the data reported in Helicopter Noise Exposure Curves for Use in Environmental Impact Assessment, FAA-EE-82-16.*

Interior Noise Levels:

1. *Interior noise levels should be calculated from the predicted exterior sound level and source spectrum at the affected building facades, and the sound transmission characteristics of the building facades. The calculation should account for the types and sizes of the building elements used in the facade, the amount of exposure of each facade to the noise source, and the cumulative noise exposure from each facade. If detailed building plans are not available, generalized building descriptions may be employed, subject to review when detailed plans are provided.*

2. *One-third octave or 1/1 octave band analysis is preferred, describing the source frequency content and facade transmission loss characteristics from 125 Hz to 4000 Hz. Corrections should also be made for absorption of sound by the receiving room. A safety factor of 3 dB is recommended to allow for potential degradation of acoustical performance from variables in construction and materials. Source spectra and transmission loss values should be obtained from published test results, if available.*

3. *If it is necessary to close windows and doors to achieve the required interior noise level standard, the analysis should indicate that adequate ventilation must be provided to meet the fresh air exchange requirements of the Uniform Building Code. Recommendations should also be made to ensure that the ventilation system does not compromise the acoustical integrity of the building facades, and that it does not create excessive interior noise levels due to its operation.*

4. *The report should cite the assumptions used for building elements and design features. Any building design features required to achieve the interior noise level standard should be clearly specified.*

8.6 Noise Opportunities, Constraints and Conclusions

- Existing noise conflicts may be difficult to remedy. In some instances, only relocation can solve problems resulting from proximity of incompatible uses. Control of transportation related noise sources such as airports, railroads and highways is preempted by State and federal government, leaving local government with few options when dealing with existing transportation facilities. Existing fixed noise sources can be regulated through adoption of a local Noise Control Ordinance.
- When dealing with existing and future noise problems, a local Noise Control Ordinance can perform a very valuable function and can mitigate many nuisances. Such regulation, however, must be based on noise exposure criteria and standards contained in the General Plan.
- When considering future proposed projects which may generate noise in excess of established standards, the County should require acoustical analyses to be performed in order to develop data specific to the project and to determine ways to mitigate noise impacts from the proposed use.

- The best mitigation will continue to be separation of uses through sound land use planning. Significant noise generators should be separated from noise sensitive uses. Also, noise sensitive uses should not be permitted in areas devoted to high noise generators such as heavy industry, major highways and many agricultural activities.
- Airport noise does not appear to be a significant concern during the planning period with the exception of noise generated from aerial application aircraft. This is due to the lack of standard operating procedures for such aircraft. Although the daily operations of airports is outside the scope of authority of both the General Plan and the Comprehensive Land Use Plans adopted by the Glenn County Airport Land Use Commission for each of the airports, the County should encourage the development of standards to minimize associated impacts on residential areas. In addition, land use patterns around airports should reflect the future reality of increased airport noise as airport activity expands.
- There are cost implications to the County associated with enforcement of a local Noise Control Ordinance. Ways to pay for such enforcement must be factored into the decision to adopt an Ordinance. It should also be noted that acoustical analysis, when requested, will be an additional developer-borne cost.

9.0 SOLID AND HAZARDOUS WASTE

Background

Legislation adopted at the State level in recent years has greatly increased local attention to, and emphasis on, solid and hazardous waste disposal programs and facilities. Legislation adopted in 1986 (AB 2948, Chap. 1504) provided for counties to prepare and adopt hazardous waste management plans in lieu of the (then required) hazardous waste provisions of a solid waste management plan. Within a specified time following approval of a hazardous waste management plan by the State Department of Health Services (DHS), the County must incorporate the plan, by reference, into the General Plan or enact an ordinance which requires that all applicable zoning, subdivision, conditional use permit, and variance decisions are consistent with the plan.

The requirement for solid waste management plans has been replaced by legislation requiring all cities and counties to adopt integrated waste management plans (AB 939, 1989). Among other provisions, the legislation calls for a 25 percent reduction in solid waste by 1995 and a 50 percent reduction by the year 2000.

These two subject areas, therefore, will receive much greater attention in the revised General Plan than in previous Glenn County General Plans. The State General Plan Guidelines suggest that a general plan include the following data and analysis related to solid and hazardous waste:

- Inventory of existing solid waste disposal sites and facilities, correlated with the County Integrated Waste Management Plan and the County Hazardous Waste Management Plan.

- Identification of land uses near existing solid waste facilities, and sites reserved for future such facilities.
- Assessment of the need for additional facilities, based upon the projected levels of land use and population and correlated with the County Integrated Waste Management Plan and the Hazardous Waste Management Plan.

These issues are addressed in the section which follows.

Specific Concerns

9.1 Landfill Capacity and Siting

The Glenn County Solid Waste Management Plan was adopted in 1975 and revised in 1984. The County is now in the process of preparing and adopting an Integrated Waste Management Plan, as required by AB 939 (1989). Portions of that document have been prepared in draft form.

The Preliminary Draft Source Reduction and Recycling Elements submitted in October 1991, includes a disposal facility capacity component. This document reports that the Glenn County Solid Waste Site is located on approximately 192 acres at the westerly terminus of County Road 33, about five miles west of Artois. The site is currently zoned exclusive agricultural, while the lands surrounding the site are zoned agricultural preserve. The site is a Class III facility that uses an area method of landfill disposal. The total capacity of the site has been estimated to be 1,742,000 cubic yards with a life expectancy of 32 years. It is estimated that, by the year 2005, the facility will still have 1,479,600 cubic yards of disposal capacity remaining.

Case law (*Concerned Citizens v. Calaveras County* (1985) 166 Cal. App. 3d90) requires that the General Plan address future solid waste disposal sites. However, since no new solid waste disposal sites are needed during the planning period, there is no need to address this issue in the revised General Plan. However, attention should be given to land use compatibility on sites surrounding the existing landfill.

9.2 Septage Disposal Practices

Concern has been expressed at the local level regarding limitations on septage (septic tank) disposal. According to the Glenn County Health Department, there is one site in the county used for this purpose located at Road 35 and Road N. The site is approximately 500 acres in size and is used for sheep grazing. The property owner has allowed the local pumping companies under permit with the County Health Department to spread septage over 85 acres of the ranch at no charge.

The site is currently under review by the State Regional Water Quality Control Board (SRWQCB) for establishment of waste discharge requirements. If for some reason a permit is not issued by this agency, alternative disposal sites will need to be identified and established. The County landfill does not currently accept septage, and a revision to the County's operating permit would most likely have to be obtained from the California Integrated Waste Management

Board prior to accepting septage. Another possible alternative is disposal at the Willows, Orland or Hamilton City wastewater treatment plants. Use of these facilities would require approval of the respective cities or districts prior to disposal. In other jurisdictions, individual pumping services are required to maintain their own disposal sites. This approach could also be considered by the County. If a site is not identified within the county, septage would have to be transported out of the county, increasing the cost of septic tank maintenance.

9.3 Composting

There are currently two organized composting or co-composting programs operating within Glenn County, resulting in a diversion rate of 1 percent of yard waste, wood waste or slash material. The cities of Willows and Orland have leaf collection programs in the fall months; however, only the City of Willows composts the leaf material.

According to the Preliminary Draft Source Reduction and Recycling Elements, a very large percentage of the local waste stream can be composted. Given the significant proportion of the waste stream that yard and wood waste represent for Glenn County, this document concludes that "...the philosophy of identifying these wastes as disposable and easily degradable must be altered. That fraction of the waste stream that is compostable must be recognized as representing a significant component, with an economic value that may be easily separated, processed and returned to commerce." It is essential both to evaluate and determine the volume of compostable waste, and to develop and secure markets for products recovered from compostable material to achieve a successful composting program.

Issues relevant to the General Plan include the impact of composting on landfill capacity and the siting of composting facilities. To the extent that vegetation waste material is composted and is thus diverted from the landfill, the remaining capacity of the existing landfill site will be extended for a longer period of time. The composting objectives included in that document include exploring the siting and development of a yard and leaf material composting facility (either separate or part of a larger integrated facility). While a composting facility will not have the same environmental impacts as a landfill, it is still an industrial use and must be carefully sited to avoid creating land use conflicts.

9.4 Source Reduction, Recycling and Compliance with State Resource Recovery Goals

The Preliminary Draft Source Reduction and Recycling Elements identify source reduction, waste diversion and recycling programs currently in operation in Glenn County. Source reduction is defined as any action which causes a net reduction in the generation of solid waste. It includes such activities as reusing grocery bags, shopping at garage sales, composting food and yard waste, repairing or reselling clothing or appliances and reducing packaging materials. Recycling is a two-step process that involves the collection and separation of materials from the waste stream, followed by the processing or conversion of those materials into similar or dissimilar uses from their original states. According to this document, the constraints which most directly affect the feasibility of recycling programs in Glenn County are the relatively small resident population and the distance from markets for recovered materials. AB 939 (1989)

requires the County to achieve a 25 percent reduction of solid waste disposed to landfill by 1995 and 50 percent by 2000.

As with composting, the two issues relevant to the General Plan are the impact of source reduction and recycling on landfill capacity and the siting of recycling facilities. To the extent that materials are recycled and are thus diverted from the landfill, or reduced at their source, the remaining capacity of the existing landfill site will be extended for a longer period of time. The recycling objectives included in that document include additional recycling bins (both permanent and at special events).

While recycling facilities will not have the same environmental impacts as a landfill, they are nevertheless an industrial use and must be carefully sited to avoid creating land use conflicts. If curbside collection programs are to be feasible, residential densities must be sufficiently high and distances from recycling centers must not be too great.

It is also recommended that ordinances be adopted requiring construction sites to recover a predetermined percent of their construction waste or use a predetermined percent of recycled products within the development site, and to establish design requirements for new developments that address the integration of recycling containers into the newly constructed units. These actions would require adoption of a new ordinance and amendment to the County Zoning Ordinance, respectively.

9.5 Hazardous Waste Facility Siting

The 1991 Glenn County Hazardous Waste Management Plan (CHWMP) contains siting criteria for proposed specified hazardous waste facilities. There are currently no hazardous waste treatment, transfer or disposal facilities located in Glenn County. The Plan establishes a policy that any proposed specified hazardous waste facility shall be consistent with the goals and policies of the CHWMP. The Plan adopts by reference the siting criteria contained in the State Department of Health Services (DHS) Guidelines for the Preparation of Hazardous Waste Management Plans. Included are siting criteria related to high hazard areas; active faults; floodplains; wetlands; endangered species habitat; unstable soils; major aquifer recharge areas; public safety; distance from residences; distance from immobile populations; proximity to major transportation routes; physical limitations of the site area; location-specific criteria; permeable strata and soils; nonattainment air areas; PSD (prevention of significant deterioration) air areas; prime agricultural lands; depth to groundwater; proximity to public facilities; proximity to waste generation stream; industrial, commercial and specially zoned lands; recreational, cultural or aesthetic areas; mineral resources areas; military lands; and other State, federal and Indian lands.

The Plan also contains siting criteria for the designation of general areas for hazardous waste facilities in Glenn County, which generally avoid areas characterized by active faults; flood zones; wetlands; critical habitat areas for endangered species; unstable soils and areas subject to landslides; regional aquifer recharge areas; residential dwelling units; prime agricultural land and agricultural preserves; federal lands; and areas designated on the Land Use Element as Public Facility, Agriculture Intensive, Industrial and Commercial/Industrial Reserve. The Plan contains

several maps which illustrate general areas to which site selection criteria might be applicable for various types of facilities.

Areas which might be suitable for repositories are generally located in the eastern portion of the county, east of I-5 and the cities of Willows and Orland, and west of SR 45. Slightly larger areas are depicted as being potentially suitable for treatment and recycling facilities and storage facilities (transfer stations), which also includes area east of the Sacramento River. Maps of Willows and Orland and surrounding unincorporated area indicate industrially designated sites south of Orland and north and south of Willows which may be suitable for treatment and recycling facilities. Please refer to the maps on pages 91-97 of the CHWMP for more precise locations.

State law requires that the County adopt the CHWMP, once it is approved by DHS, as part of the General Plan or by ordinance. As described in the CHWMP, the relationship of the Plan to the elements of the General Plan is as follows:

- **Land Use Element.** The Land Use Element of the General Plan has the broadest scope of the required elements of the General Plan. The Land Use Element provides basic information on Glenn County and designates each area of the County for specified land uses to provide a balanced and functional mix of land uses. The Revised Land Use Element was adopted in 1985. The Siting Criteria section of the County Hazardous Waste Management Plan may refer to the Land Use Element or Land Use Designations.
- **Housing Element.** The Housing Element identifies the housing needs and specifies standards and plans for the improvement of housing conditions. The Housing Element was revised in 1989 and provides data on the number of households in Glenn County. The County Hazardous Waste Management Plan may use this data to calculate household hazardous waste.
- **Circulation Element.** The Circulation Element identifies the general location of existing and proposed major thoroughfares, transportation routes and facilities. The Revised Circulation Element was adopted in 1987 and provides information on transportation routes, this information will be considered in the County Hazardous Waste Management Plan.
- **Conservation Management Element.** The Conservation Management Element of the General Plan includes the Open Space and Conservation elements as well as the Scenic Highways and Recreation elements and was adopted in 1987. The Conservation Management Element provides guidance for the County Hazardous Waste Management Plan by showing areas subject to flooding, and areas in the Agriculture Preserve (under Williamson Act Contracts).
- **Noise Element.** The Noise Element of the General Plan was adopted in 1974. This Element would affect the siting of hazardous waste facilities because any such facilities would have to meet the noise standards of the Noise Element

- **Seismic Safety Element.** The Seismic Safety Element of the General Plan was adopted in 1974 and provides information regarding the potential for earthquakes. This information will be considered in the Siting Criteria Section of the Glenn County Hazardous Waste Management Plan. The Seismic Safety Element will be part of the Safety Element in the Revised General Plan.
- **Safety Element.** The Safety Element of the General Plan was adopted in 1974 and the Fire Safety Sub-Element was adopted in 1985. The County Hazardous Waste Management Plan will also consider various safety concerns.

The County adopted the Revised Glenn County Hazardous Waste Management Plan as part of the Glenn County General Plan in December 1991. Any revisions to the County's Zoning Ordinance necessary to implement the CHWMP must also be adopted. In addition to the siting criteria described above, the CHWMP provides that the County would also require conditions of approval for any hazardous waste facility as part of the conditional use permit process required by the Glenn County Code. The conditions are listed on pages 85-86 of the CHWMP. These conditions should be incorporated into the County Zoning Ordinance for the zones in which hazardous waste facilities are allowed as conditional uses.

Because of the internal consistency requirement under State law for the general plan, when the CHWMP is adopted as part of the County's General Plan, it is necessary to assure that there is consistency among the goals, policies, plan proposals, standards and implementation measures of the CHWMP and all general plan elements. Because the entire County General Plan is being revised and updated at the same time, it is comparatively easier to assure that this consistency will be achieved.

The CHWMP siting criteria appear to be consistent with other County goals and priorities such as preservation of prime agricultural land and wetlands, separation from incompatible uses, and protection of people and property from hazards. The selection of general areas to which site selection criteria might apply has implications for existing and future planned land uses in the vicinity of any hazardous waste facilities which are ultimately developed. New development within these general areas may preclude use of some potential sites for hazardous waste facilities; conversely, the siting of a hazardous waste facility within these areas may preclude other types of development in the vicinity that would normally be permitted. Transportation and air quality impacts are related issues, for which policies are also included in the CHWMP. These types of considerations would, however, be thoroughly addressed as part of the permit review process for a specific proposed hazardous waste facility.

Certain opportunities also present themselves in association with hazardous waste facilities. In addition to employment opportunities, counties also have the option of imposing a "gross receipts tax" of up to 10 percent upon the revenues of such a facility if privately operated. These taxes can generate significant revenues for a county's general fund, as in Kings County in which a Class I disposal facility is located in the Kettleman Hills.

9.6 Drilling Mud Disposal

According to the Energy Facility Siting in Glenn County - Working Paper, during gas well drilling, specially treated mud is pumped down the drilling pipe to remove the pieces of rock (or "cuttings") dislodged by the drill from the well. Small holes in the drill bit allow the mud to spray through, picking up rock cuttings from the drill bit. The pressure of this pumping forces the mud back to the surface in the space between the drilled hole and the drilling pipe. When it reaches the surface, the mud is screened to remove the cuttings, then recirculated back down the hole to pick up more cuttings.

Because of additives used to create drilling mud, such mud may be considered hazardous waste, and this may require special disposal facilities. Drilling mud is classified by the State as "designated waste", which is "...nonhazardous waste which consists of or contains soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of the water of the state" (Glenn County Hazardous Waste Management Plan, p. 30).

According to the CHWMP, there are two drilling mud disposal sites in the county. Both are located south of Orland and are limited to accepting nonhazardous drilling mud (nonhazardous drilling mud is certified by the driller and/or hauler as containing only those additives that are listed in the DHS Nonhazardous Drilling Mud Additive List). The California Regional Water Quality Control Board classifies the drilling mud being disposed of at the Glenn County sites as a "designated waste" on the basis of the total dissolved solids (salts) in the fluid derived from a Wet Extraction Test. High total dissolved solids are not hazardous but may cause degradation of groundwater if not properly managed.

At the present time, drilling mud is received at the Fulton Reclamation and Recycling Facility, which operates under a waste discharge permit from the Regional Water Quality Control Board. The drilling mud is spread over the land in order to increase the agricultural capacity of the very gravelly native soils.

The other facility, the Valley Rock drilling mud disposal site, is an old borrow pit that was filled with drilling mud. Although this facility has a current permit from the Regional Water Quality Control Board, it is not operating at this time. The site originally operated under a Conditional Use Permit from the County. The facility was closed by the County for noncompliance with the conditions of approval and the Conditional Use Permit was subsequently revoked. The site is now closed. The CHWMP does not estimate the projected life of this facility; however, according to the Energy Facility Siting in Glenn County - Working Paper, both facilities are approaching capacity.

In addition to the drilling mud disposed of at these two sites, DHS reported 13.44 tons of drilling mud exported from Glenn County in 1986 from the Bounde Creek gas field. This drilling mud was sent to a Class I disposal site.

It has been assumed in the three Issue Papers that gas well drilling and production will continue during the planning period for the General Plan. It is also fairly safe to assume that regulations

for disposal of drilling mud will become more, rather than less, restrictive. Accordingly, the Energy Element of the General Plan should estimate needs and address the issues and potential sites for additional and/or expanded drilling mud disposal facilities in Glenn County.

9.7 Production Water Injection Wells

Natural gas occurs in marine deposits that also contain salt water. This salt water, known as "production water", is discharged from gas wells along with the natural gas. The production water is stored at the gas well site in plastic or steel tanks and carried to injection wells for disposal into gas wells that are no longer productive. Injection is permitted only into salt water bearing formations. There are four injection wells in the county, regulated by Glenn County (through a well ordinance and the conditional use permit process) and the Division of Oil and Gas.

As with drilling mud disposal sites, the availability of production water injection wells will need to keep pace with gas well development and production. The Energy Element should estimate needs and address issues and potential sites for additional injection wells.

9.8 Contaminated Sites

As is the case with most California cities and counties, leaking underground tanks comprise a large percentage of known contaminated sites in Glenn County. The Glenn County Agricultural Commissioner has responsibility for the County's underground tank testing and cleanup program. It is estimated in the CHWMP that approximately 10 percent of all registered tanks are not in compliance, and that exposure of contaminated soil to air will be the accepted cleanup practice.

Other known and potential contaminated sites include a former aircraft wash rack at the Willows Airport (a County-owned facility); the Orland Haigh Field Airport; a former Louisiana Pacific Corporation sawmill site in Elk Creek and two old Forest Service landfill sites, a building and steel drums near Alder Springs. A map of contaminated sites is included in Appendix I of the CHWMP. Any additional sites which are identified will be added to the Plan as it is updated. The Plan states that it is anticipated that all contaminated sites in Glenn County will be cleaned up by the year 2000.

The CHWMP concludes that the government owned sites on Forest Service land and the Willows Airport are not likely to be sold to private parties. The low number of contaminated and potentially contaminated sites leads to the conclusion that this does not represent a significant planning issue for Glenn County.

9.9 Solid and Hazardous Waste Opportunities, Constraints and Conclusions

- There is no need for an additional landfill site in Glenn County within the time frame of the revised General Plan. The existing site has adequate capacity throughout the planning period, and this capacity will be extended to the extent that planned composting, recycling, and source reduction programs are successful.

- Land use compatibility issues in the vicinity of the existing landfill and potential sites for recycling and composting facilities should be addressed in the Land Use Element of the General Plan.
- Limitations on septage disposal may present one of several constraints to new development on septic systems. The General Plan should consider potential alternative sites for septage disposal.
- County goals and policies with respect to solid waste source reduction, recycling, composting and special waste should be incorporated into the revised General Plan.
- The goals, policies, siting criteria and implementation measures of the Glenn County Hazardous Waste Management Plan have been incorporated into the Glenn County General Plan. The maps depicting general areas to which site selection criteria might be applicable for various types of facilities should be taken into consideration when assigning land use designations to these areas. Necessary ordinance amendments to implement and assure compliance with the CHWMP should be initiated immediately following adoption of the revised General Plan.
- If a hazardous waste facility proposes to locate in Glenn County at some point, the County should consider imposition of a "gross receipts tax" to enhance County revenues.
- The Energy Element of the General Plan should address the need, and possible locations, for additional drilling mud disposal sites and production water injection wells in light of continued natural gas exploration and production.
- Contaminated sites do not appear to pose any serious constraints upon new development at this time.

10.0 ALTERNATIVES

For each Issue Paper, three alternative scenarios are to be developed and reviewed with the staff, Citizen's Advisory Committee and decision makers. As suggested in the State General Plan Guidelines, for any set of circumstances, a number of possible courses of action or planning scenarios exist. It is our purpose in this Section to identify a reasonable range of alternatives related to Public Safety in Glenn County and to explore the various pros and cons of the potential courses of action. The alternatives should also be examined for consistency with the goals and policies in the previous Section of this Issue Paper.

The alternatives need not be mutually exclusive and ultimately the decision makers may choose to consolidate ideas from more than one scenario. Further, it must be kept in mind that decisions concerning Public Safety alternatives will have an impact on alternatives identified for Community Development and Natural Resources, and vice versa, requiring alternative futures in all three areas to be reviewed and absorbed prior to decision making.

The General Plan Guidelines recommend that each alternative be evaluated for its short-term and long-term environmental and social effects. This Issue Paper will use the suggested format, to the extent it is applicable to public safety issues. Evaluation of the environmental effects of each alternative will also be the focus of evaluation of project alternatives pursuant to the California Environmental Quality Act, at such time as the EIR for the General Plan is prepared.

The role of Glenn County and that of present and future cities will also be explored. Public safety is greatly influenced by the degree to which cities and the County engage in development practices which lend themselves to effective and efficient servicing of future population. This is particularly true in areas of fire protection and law enforcement. Public safety is also influenced by the degree to which the County and its cities cooperate to deliver those services.

10.1 Scenarios

Three general scenarios which are potentially possible in the public safety area include one in which public safety concerns dominate the agenda, leading to an inability to approve new development which is economically feasible and which would foster new economic activity (Alternative 1PS), one which balances public safety concerns against the need for housing, jobs and economic activity (Alternative 2PS), and a third which deemphasizes public safety concerns in order to capture greater economic activity (Alternative 3PS). Each scenario is described and evaluated in the following paragraphs.

Alternative 1PS

Description

As noted previously, this scenario assumes public safety will be of sufficient concern that the County will be left with an inability to approve new development which is economically feasible. Change in the manner in which public safety services are delivered is resisted and there is a strong bias in favor of leaving things as they are, with present organizations and institutions remaining in place. Efforts to consolidate services or create new mechanisms for delivery of services will be unpopular and will remain untried. Growth will be resisted as present institutions fear they will be incapable of accommodating growth and change. Concerns for public safety are often a proxy for broader concerns about growth in general and the effect growth may have on the present character of communities and quality of life.

Shifting growth to new communities or to foothill areas will be difficult to achieve as agencies focus on present plans and capabilities, without searching for new means to fund services and deal with potential opportunities to create economic activity. As a means to combat unwanted growth, costly standards and regulations dealing with geologic hazards, flooding, water quality, noise and hazardous waste may be advocated which cripple economic development. Air quality concerns will extend beyond those identified in approved air quality attainment plans and relatively undefined perceived air quality impacts may become the basis for turning away economic development opportunities. Alternative forms of transportation will be emphasized to reduce air quality problems, even though their economic viability may be many years away.

Discussion

Alternative 1PS would severely constrain economic development in the County. It would essentially assure the status quo with little institutional change and little change in the present economic mix. Most proposals which fostered change would likely be defeated under the theory that present institutions cannot support the change or that such change would result in irreparable harm to the environment.

Without question, the County's physical environment will undergo less impact in the short-term and long-term under this scenario. Less growth will mean less exposure to seismic activity, less air quality degradation, less waste to dispose of, less noise generated, and less need to disturb floodplains or other potentially hazardous areas.

The social effects are less encouraging, both short-term and long-term. A policy such as that outlined will not permit change, thus the problems of employment opportunity and general lack of economic activity will remain with the County. In the long-term this protectionist posture will only exacerbate the problem. Quality of life in Glenn County, if viewed in terms of economic opportunity and standard of living, will likely diminish under this scenario. Present institutions and ways of life will, however, be protected and perpetuated. This has value of its own and must be weighed against the relative attractiveness and value of other opportunities.

Alternative 2PS

Description

As noted above, this alternative attempts to balance public safety needs against the need to foster new economic activity. Means would be sought to accommodate new development while providing for reasonable protection of the public health and safety. In this effort, institutional change would be actively pursued in order to meet the demands of changing times.

Consolidation of services would be explored and effectuated where more cost effective or efficient patterns of service delivery would result. The County would look to play a role in service areas in which it had not previously participated, if necessary, to bring about improved service levels. Paid fire personnel would be added in urbanizing areas, and urban fire departments as distinct from rural departments would be considered. Consolidations of police services in urbanizing areas would also be explored, either through annexation or other service agreements. Financing for services, as well as needed capital outlay, would be built into new project approvals to assure adequate levels of service while accommodating new development. The latter could be accomplished in part through service impact fees and financing mechanisms such as Mello-Roos.

New communities would be permitted as long as the necessary financing and physical safeguards were built into the development, including appropriate measures to protect development from flooding and wildland fires. Appropriate standards sufficient to protect development from

various geologic and water quality hazards will be adopted and applied to all new projects. Adopted air quality attainment plans will be implemented and necessary steps will be taken to encourage alternative transportation, where it is feasible, as well as jobs/housing balance, in order to avoid degradation of the County's air resources. Source reduction of solid and hazardous waste will be encouraged through the many programs outlined in the applicable plans and will include the County's active involvement.

Discussion

Alternative 2PS recognizes the legitimate concerns of public safety service providers and actively seeks solutions to identified problems, including institutional change and new sources of financing. It assumes the County will play an active and direct role in solving public safety service problems and will facilitate change and consolidation of responsibility, when appropriate. While recognizing public safety concerns, growth and new economic activity are seen as vital to the County's future and ways are sought to accommodate development which is in accordance with County plans.

Emphasis is placed on finding ways to finance change and growth for the future and some risk is assumed in order to expand economic opportunity. Short-term and long-term environmental impacts include more land utilized for development than would be the case if public safety concerns were used as a basis for discouraging growth. Because additional growth can be accommodated under this scenario, there is greater environmental risk, which may include development in areas of high fire hazard or areas subject to flooding or geologic hazard. The County must have adequate yet reasonable standards and regulations in place to assure that hazards are mitigated. To accomplish this, the County must be willing to form various financing and maintenance districts to deal with issues as they arise.

There is also the potential for an increase in noise levels and air quality will be a continuing concern requiring close attention. Implementing a reasonable set of standards in these areas that are in step with those of other jurisdictions should mitigate concerns to an acceptable level. Additional space and processes will be required for waste disposal. Adequate fees must be charged for this service and emphasis must be placed on source reduction.

Balancing safety concerns with the opportunities of economic development should have long-term social benefit. Short term benefits will also result from increased development activity. Long-term, unemployment should be reduced and greater choice in goods and services should become available. Greater opportunity for younger persons to remain in Glenn County will be present and the general quality of life should increase. There are, of course trade-offs as more people bring greater service burdens, and changes in the manner in which institutional activities have been carried out are required.

This scenario requires a proactive approach to problem identification and solution. It assumes people are constantly looking for better ways to do things. Although tradition will always have its place, the challenges of the future will require an appetite for change as well.

Alternative 3PS

Description

Under this scenario it is assumed that capturing economic development takes precedence over perceived safety concerns. Existing service providers remain in place and struggle to meet the demands of growth and development. Little in the way of additional revenue programs are implemented for fear of dampening development activity. As a consequence, service levels decline.

There is reluctance to adopt new standards and regulations which protect property and people from safety hazards, including fire, flood, noise, crime, air and water quality for fear that it will increase the cost of development and make Glenn County less competitive. Issues of jobs/housing balance and alternative forms of transportation to improve air quality are given little weight in decision making even though remote development, including new communities, is entertained.

The County views its role in the domain of public safety as limited, deferring to the actions of others. Little effort is exercised in the area of institutional change with the individual agencies left to cope. Fragmentation of responsibility is compounded as growth continues, and problems in public safety service delivery are commonplace.

Discussion

From an institutional perspective, this scenario is not far from Alternative 1PS. The difference, however, is that under Alternative 1PS, limited growth allows agencies to continue to cope. Under this scenario, the agencies will ultimately break down and the public will demand change or will revert to an Alternative 1PS approach to solution of the problem.

Environmental impacts under this scenario will be most severe as growth unconstrained by safety concerns proceeds. Resulting development patterns will have a greater impact on air quality, geologically hazardous areas, and areas subject to flooding, as well as areas which experience wildland fire. The lack of new revenue sources will compound environmental impacts as potential mitigation measures go unfunded. Long-term financial burdens will be created for the County as areas require remedial action and protection, years after the development is complete. This can include drainage, fire flow and access improvements, among others.

Social impacts may well be positive short-term as development proceeds unconstrained by safety concerns and costs, resulting in greater economic activity and jobs. Long-term, however, the costs that will ultimately be borne by the public to correct problems created through poor development practice or underfunding of services will be substantial and may result in a backlash against further economic expansion. An additional point that should not be overlooked concerns the question of liability at the County level. Inattention to safety concerns can expose the County and its citizens to substantial claims by property owners that believe they have been

harmed through the County's lack of diligence when approving new development. Issues which may arise include failing septic systems, unstable building sites, and exposure to destructive fires. Although such problems may not surface in the short-term, the long-term impacts can be substantial to the County's financial resources and credibility.

10.2 Role of County vs. City

In most aspects of public safety, the County and cities have a shared role. For such matters as air quality, water quality and flood hazards, similar regulations promulgated at the regional, State and federal level apply equally to all jurisdictions, although there is some local discretion. In other areas such as noise, geologic hazard, fire and law enforcement, decisions are generally made locally. If cities and the County can adopt the same or similar standards and regulations in areas of local discretion, more coherent development patterns and decision making will result. This is especially true with regard to public safety, since safety impacts, such as flood, fire and geologic hazard don't always follow political boundaries.

The public safety issues generally of greatest shared interest among cities and counties are law enforcement and fire protection. Inefficient service delivery patterns often result through development decisions and/or annexations. Although this is a very limited issue in Glenn County at this time, an increased rate of growth could lead to problems requiring solutions. Ideally, cities would operate fire and law enforcement departments geared to delivering service to compact urban areas, while counties and rural districts would concentrate on service delivery to rural areas with a different mix of land use and infrastructure. If all development of an urban nature were annexed to cities, and occurred in compact fashion, few problems would result. Where this does not occur, cities and the County should explore service agreements for law enforcement permitting the city police department to take responsibility for urban areas, while the Sheriff's patrol focuses on rural areas. As has been noted earlier, it also makes sense to operate urban fire departments in urban areas and rural fire departments in rural areas, since the required mix of equipment and personnel are often different.

Recognizing that both the County and cities share a similar role in the public safety area, it is in the public interest if the jurisdictions work cooperatively to serve the public, sharing information and procedures where possible and making land use decisions which protect public safety. Where it is found that one jurisdiction is in a better position to provide the necessary level of protection, jurisdictional lines should be changed, if possible, or agreements entered into that permit the most suitable agency to serve the area.

SECTION 3 - COMMUNITY DEVELOPMENT ISSUE PAPER

1.0 INTRODUCTION

The Community Development Issue Paper is one of three papers prepared to assist in the formulation of an updated Glenn County General Plan. The other two papers are the Public Safety Issue Paper and the Natural Resources Issue Paper. Originally published separately, as draft documents, the three papers have now been updated and bound into a single volume (Volume II). Each paper focuses on several topics which have been identified for discussion in the General Plan. Topics were suggested either by participants in the process or are identified by the State General Plan Guidelines as matters which must be addressed.

The Community Development Issue Paper focuses on topics which are related to growth and development in Glenn County. Included are land use and growth, preservation of agricultural lands, transportation and circulation, housing, public services and facilities, and economic development. The focus is on the urbanized and urbanizing areas of Glenn County and on programs and ways to direct, enhance and serve new development to the County's benefit. In addition to a discussion of issues, the document contains three alternative community development scenarios for Glenn County. The draft Community Development Issue Paper also contained recommended goals, policies, implementation strategies and standards. These goals, policies, implementation strategies and standards have been reviewed and have been incorporated, with modifications, in the Policy Plan document (Volume I).

The series of papers was preceded by the Environmental Setting Technical Paper which was released in September 1991. The Technical Paper contains much of the data on which the present papers are based. Where necessary, that data was supplemented through additional research. References are made to the Technical Paper and it will be helpful for the reader to have access to a copy of the previous document when reviewing the issue papers.

2.0 LAND USE/GROWTH

Background

Land use and growth is a subject somewhat daunting in its potential breadth. According to the 1990 State of California General Plan Guidelines:

The land use element has the broadest scope of the seven mandatory elements. In theory, it plays the central role of correlating all land use issues into a set of coherent development policies.

In terms of issues which must be discussed, and the depth with which they are treated, a "shoe fits" doctrine is applied. In other words, land use issues identified in State law which are of the most importance to Glenn County will be discussed in the greatest detail, others will be given cursory attention, and still others (such as coastal issues) will not be discussed at all.

As concluded in the Environmental Setting Technical Paper, based on historical growth rates and development patterns, the region has been largely unaffected to date by the unprecedented growth, and its attendant opportunities and problems, impacting many areas of California. This situation may, however, be on the verge of change due to the area's scenic beauty, quality of life, proximity to Chico and housing affordability.

Next to budgetary issues, land use issues often occupy the greatest attention of the Board of Supervisors. As described below, land use and budgetary issues are frequently related to one another. New and proposed developments are typically of great interest to private citizens, property owners and the media, so land use decisions have a high profile in the community.

As stated in the General Plan Guidelines, "an adequate general plan is one that serves as a useful guide for local decision making." This section includes a discussion and analysis of agricultural lands, distribution of land uses, zoning and quality of life. These analyses are used to formulate suggested goals and policies, which form the policy basis for making consistent decisions on land use and development proposals.

The predominant land uses in Glenn County are agriculture, forests and open space/grazing lands. The mountainous portion of the county is primarily forest land, including approximately 200,000 acres within the Mendocino National Forest. Two-thirds of the county's area is encompassed by agriculture, approximately half of which is grazing land in the western foothill areas, with the remaining land on the valley floor used for production agriculture.

Generalized land use for Glenn County is depicted on Figure 4-1 of the Environmental Setting Technical Paper. Urbanized areas, including the cities of Willows and Orland and the unincorporated communities of Bayliss, Glenn, Ord Bend, Capay, Codora Four Corners, Artois, Hamilton City, Butte City, North Willows, Northeast Willows and East and West Orland, make up a minor percentage of the total land area, most of which is located on the Valley floor. Agriculture is the single most important component of the county's employment and economic base. Accordingly, agricultural land use issues are of great importance in Glenn County. Please refer to Section 2.1 of the Natural Resources Issue Paper for a related analysis of agricultural resource issues.

Specific Concerns

2.1 Preservation of Agricultural Lands

Several counties in California have elected to adopt an agricultural element as part of their general plans which addresses agricultural issues exclusively. There has been some discussion at the State level of requiring an agricultural element. Agricultural issues can be addressed in the land use, conservation and open space elements, and will obviously figure quite prominently in the Glenn County General Plan. The General Plan can make a strong statement in support of local agriculture and affirm the County's commitment to maintaining agriculture as an important part of the local economy and way of life.

2.1.1 Urban/Agricultural Interface

The potential for land use conflicts exists wherever agricultural and urban land uses are in proximity to one another. In Glenn County, this situation occurs around the edges of the cities of Willows and Orland, and around unincorporated communities such as North Willows, Northeast Willows, East and West Orland, Artois, Butte City, the Capay area, and Hamilton City. Such conflicts can also occur, and may even be more acute, when residences are located on relatively small, scattered parcels in agricultural areas. Potential sources of conflict include noise from agricultural operations (including farm equipment and crop dusting), drift of agricultural chemicals, restrictions on application of agricultural chemicals due to nearby residences, dust, odors, and vandalism of farms. Nearby residents may resent the intrusion of farm operations, and farmers may resent limitations imposed on their operations by encroaching development.

Glenn County has adopted a "Right to Farm" ordinance as a tool for reducing potential urban/agricultural land use conflicts. This ordinance, which has been adopted in various forms by numerous agricultural counties throughout the state, requires purchasers of property and applicants for discretionary permits in commercial agricultural areas to acknowledge in writing that their property may be subjected to noise, dust, fumes, odors and chemicals from agricultural operations. State law (Civil Code Section 3482.5) also provides that using land for commercial agricultural production cannot be deemed a nuisance to surrounding land uses if it has been operating for at least three years. The Glenn County ordinance provides that no commercial agricultural activity, operation, or facility, which is conducted or maintained in a manner consistent with proper and accepted customs and standards, shall become a public or private nuisance, if it was not a nuisance when it began. While this ordinance establishes commercial agriculture as a priority and puts would-be purchasers and permit applicants on notice that such impacts may occur, it is not clear that it actually reduces complaints or prevents civil nuisance actions from being pursued.

Agricultural processing plants and facilities, such as food processing or packing operations, may also result in land use conflicts, whether inside or adjacent to a community. It is important to recognize that such uses are industries, and present the same potential or actual conflicts as many manufacturing uses, including noise, light and glare, odor and traffic. Examples of such facilities in Glenn County include the Holly Sugar plant in Hamilton City and the Sun Beet Plant near the Orland airport. The County Zoning Code currently requires conditional use permits for these facilities, which allows potential land use conflicts to be addressed and mitigated.

Because a large percentage of Glenn County residents are employed in agriculturally-related occupations, and there has not been a large influx of residents from outside the area, actual complaints arising from land use conflicts have been very minimal to date. The increase in new dairies locating in Glenn County, and the potential for rural residences to be built and occupied by new residents on existing small parcels in agricultural areas, represent a potential for increase in land use conflicts in the future. The General Plan offers the opportunity to set clear policy regarding appropriate locations for new dairies and agriculturally-related industry, as well as rural residential development. Locational policies for dairies should support present adopted dairy standards.

2.1.2 Urban Limit Lines.

Urban boundaries, or urban limit lines, can be adopted as part of the County General Plan to establish the limits of urban development, or the urban/agricultural interface, around cities. According to Professor Irving Schiffman, in the guidebook *Alternative Techniques for Controlling Land Use*, the definition of an urban boundary is:

A planning device that defines the ultimate growth area around incorporated cities, within which the cities and the county seek to cooperate in matters affecting land development. County land use policies are designed to discourage urban-type growth from occurring outside of urban area boundaries. Some communities establish several lines within the urban area boundary, intending them to correspond with the phasing of growth over an extended period of time. (p. 84)

Urban boundaries can also be established around unincorporated communities to define the area where urban development can occur. Its other function--as a means of coordinating planning between a county and a city--does not apply in this type of situation, as the County is the planning agency for the community as well as the surrounding area. A discussion of city/county land use planning interface is contained in Section 2.2.4 below.

Professor Schiffman's guidebook provides the following description of the customary procedure followed in establishing urban boundaries or urban limit lines:

- Population growth is projected over a specific time period. The population forecast is then used as a basis on which to predict land demand within the urban area.
- The boundary is drawn in conformity with planning criteria, employing natural physical barriers and existing road patterns where possible. Planning objectives may include the promotion of contiguous and fiscally sound growth along with protection of open space and agricultural lands, scenic corridors, environmentally sensitive areas, and archeological and historic sites.
- The boundary is related to the projected ultimate service area of the city as determined in its general plan.
- The boundary should include land necessary to fill in and complete existing neighborhoods while utilizing existing public investments to the fullest.
- The boundary is drawn so as to minimize urban interference with agricultural or other resource uses. Where necessary, low-density development is proposed for the boundary's edge. (p. 84-85)

He has also identified the following potential benefits and limitations of this approach:

Potential Benefits.

- Unlike the sphere of influence designation, it commits the county to the policy that urban development take place in locations where urban services can be provided in the most efficient and economical manner.
- Preserves agricultural, forested, and open space lands outside the boundary area while reducing leapfrog development.
- Lessens uncertainty about future urban use, thus reducing the amount of long-term speculation and development buying in fringe areas not designated for future urban development.
- Allows county officials to concern themselves primarily with the delivery of rural services.

Limitations.

- To the extent that adoption of an urban area boundary reduces the supply of developable land, it could lead to higher land prices. Planning policies may need to be adopted to assure that such goals as providing affordable housing are not compromised.
- Potentially shifts land values from rural to urban service areas, creating political problems.
- After the boundary is adopted, county decisionmakers may face pressure from those seeking to develop within the urban areaboundary at a time or in a place not acceptable to the city. (p. 85-86)

As alluded to above, the primary benefit of urban limit lines to agricultural land preservation is defining and limiting the areas within which non-agricultural development can occur. Large, contiguous and commercially viable areas can thus be retained for agriculture. Urban development can also be guided to less productive agricultural lands, where there is an opportunity to make such a choice around an existing city or community.

The land use element of the general plan is an appropriate forum for establishing urban boundaries or limit lines around the cities and communities in Glenn County, taking into consideration population projections, physical constraints and opportunities, road patterns, projected development densities, and plans for public services and facilities. In response to the first limitation listed above, it is important that these boundaries accommodate sufficient land to allow for choice and to accommodate property owners who may not choose to develop their land within the General Plan time frame. The cities of Willows and Orland and the community services districts for Artois, Butte City, Elk Creek, Hamilton City, Northeast Willows and Ord need to be involved in these deliberations.

2.1.3 Old "Paper" Subdivisions in Agricultural Areas

This topic refers to the existence of old subdivisions (subdivisions "on paper" only) created in agricultural areas, prior to modern regulations and practices regarding the division of land. The

State Subdivision Map Act and the Glenn County Land Division Ordinance require that new subdivisions be consistent with the General Plan and that roads and other infrastructure be installed prior to the sale of lots and construction of dwellings. Land must also be properly zoned to permit subdivisions.

The existence of these old lots represents a potential that they may be sold and developed at some point in the future, in inappropriate locations and without necessary facilities and services. Problems which may result include an unanticipated demand for County services at remote locations and urban/agricultural land use conflicts. The greatest concentrations of such subdivisions are in the vicinity of Hamilton City, Ord Bend, Butte City and the Capay area. The lots in the Butte City area are reportedly being purchased by duck hunters from the Bay Area to use for hunting purposes.

The State Subdivision Map Act provides that the local agency (in this case, the County) can initiate the merger of contiguous parcels under common ownership in accordance with Government Code Section 66451.10 et seq. The law requires that the County adopt an ordinance to implement the procedures prescribed in the Map Act. A merger can be initiated if any one of the contiguous parcels does not conform to the standards for minimum parcel size in the County Zoning Code, and all of the requirements in the Map Act are satisfied, which include absence of structures on at least one parcel, substandard lot area, lack of compliance with laws and ordinances in effect at the time the subdivision was created, lack of compliance with current standards for sewage disposal and domestic water supply, legal access, health and safety hazards, and consistency with general and specific plans. Other restrictions on mergers apply as set forth in the Map Act.

The local ordinance may establish the standards described above which are applicable to parcels to be merged, regarding sewage disposal and water supply, slope stability standards, access, health and safety hazards, and plan consistency. Adoption of such an ordinance would provide the County with the necessary tools to merge old paper subdivisions which remain under common ownership. The difficulty with actually accomplishing such mergers is that there is normally a high level of opposition to such mergers by property owners, who may view such action as depriving them of property rights and future development potential.

Chapter 17.26 of the Glenn County Land Division Ordinance provides for the merger of two or more contiguous parcels or units of land by the Planning Commission when the standards and requirements of Government Code Section 66451.11 are met. However, this ordinance does not establish standards unique to Glenn County.

2.1.4 Variances for Parcel Size in Agricultural Areas

The County's existing agricultural zones establish the following minimum parcel sizes:

Foothill Agricultural/Forestry Zone	(FA)		160 acres
Agricultural Preserve Zone	(AP)	prime land	80 acres
		non-prime land	160 acres

Exclusive Agricultural Zone	(AE)		
Sub-Zone		AE-20	20 acres
		AE-40	40 acres
		AE-80	80 acres
Agricultural Transitional Zone	(AT)		
Sub-Zone		AT-5	5 acres
		AT-10	10 acres
		AT-20	20 acres

The zoning classifications are designed to maintain viable agricultural parcels. The AP zone, which is applied to lands covered by a California Land Conservation Act (Williamson Act) contract, specifically does not permit variances for parcel size. County staff has identified a need to provide for variances from the minimum parcel size requirement in cases where circumstances beyond a property owner's control have resulted in parcels which fall short of the acreage required for land division (e.g. 79 acre parcel in an AE-80 zone) but are still consistent with the overall densities established in the General Plan. Examples of such situations include parcels that are portions of a section which contain less than the normal acreage due to an anomaly in the original survey and parcels crossed by roads, canals, levees or some other physical feature which create a nonfunctional parcel.

The purpose of a variance is to prevent unnecessary hardships that would result from a strict or literal interpretation and enforcement of the Zoning Code. The Code (Chapter 19.16) requires that the Planning Commission make the following findings in order to approve a variance:

- Due to special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.
- The adjustment authorized by the variance shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated. The Planning Commission shall impose such conditions as will assure continued compliance with this finding.
- The variance does not authorize a use or activity which is not otherwise expressly authorized by the zone regulation governing the parcel of real property.

These findings can be limited to the types of situations described above, and can be further limited so as not to exceed a given percentage (such as 10 percent) of the minimum acreage and to assure consistency with the General Plan. The General Plan can establish such a policy, to be implemented through an amendment to the Zoning Code. As an alternative to the granting of variances, the County could establish "exceptions" in its Zoning Code for specified circumstances, which are supported by policy in the General Plan. This procedure would allow

for administrative handling of such matters and would eliminate the need to make the findings for a variance in each instance.

2.1.5 Irrigation Water.

As noted in the Environmental Setting Technical Paper, there are water and irrigation districts, as well as some private water companies, in Glenn County. These special districts and companies were originally formed to provide irrigation water to farmers within their district boundaries. Some of these districts now are supplying domestic water to rural residential parcels in addition to their traditional role as a purveyor of agricultural water.

An example of such a situation is the Orland Unit Water Users Association; which, however, is a private association, and not a public special district. According to the Orland Area General Plan:

The Orland Unit Water Users' Association supplies water for irrigation to land around Orland. The Orland Unit Water User's Association secured a water right to water from Stony Creek in 1902 and the first water was delivered to the Orland Project in 1910.

At this time (1990) the Orland Unit Water User's Association has 1100 share holders...Only 90 share holders have forty (40) or more acres. Six hundredseventy nine (679) share holders farm from five to forty acres. There are 331 parcels with less than five acres in the Association. These farming operations can be considered as hobby farms or supplemental income since all the owners have other jobs for their main source of income.

The apparent trend toward conversion of water users from large-scale farming operations to five-acre "hobby farms" marks a change in the Association's original mission, and may raise dilemmas within the Association should issues arise which divide their diverse clientele. Although the Association does not provide drinking water to its users, by providing irrigation water to small parcels (5 acres or less), it can be argued that the Association encourages, or at least does not discourage, the creation of parcels of a size not viable for commercial agriculture, and may thwart County land use policies. It can also be argued that water delivery to non-viable agricultural parcels represents a waste of a public investment intended to support agricultural operations.

In the case of special districts, LAFCO can amend their Spheres of Influence and/or require detachments from a district upon annexation to a city. However, in the case of a private water company, the decision as to whom they will serve is a matter for the board of directors and/or shareholders of the company.

2.2 Distribution of Residential, Commercial and Industrial Uses and Open Space

Section 65302(a) of the California Government Code states that the general plan shall include "a land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation and enjoyment of scenic beauty, education, public buildings and

grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land."

2.2.1 Land Use Needs

The physical distribution of planned land uses in the county will be expressed generally in the required land use diagram for the general plan, which is a reflection of the goals, policies and standards which are a part of the general plan. The proposed distribution of uses is based upon existing land use patterns and proposed future land use patterns. These proposed uses are normally based upon projections of needs for residential, commercial, industrial and other uses, which are in turn based upon projections of future population and economic conditions. With regard to open space (including agricultural lands), parks and recreation facilities, the amount of land proposed to be devoted to these uses depends upon the County's goals, anticipated population growth, and the existing open space and parks to population (acres/thousand inhabitants) ratios. The amount of land needed for public facilities (such as schools, public buildings and grounds) must also be projected based upon existing and projected numbers of school aged children, projected increases in land use intensity and population, and the correlated need for additional services.

Forecasts of economic conditions and market demand also enter into the land use projection equation. However, it must be kept in mind that the general plan is a long-term planning document, and that most economic cycles will even out over the twenty-year time frame. Any known or anticipated large new development (such as a university campus) should be incorporated into the plan, but none are currently contemplated for Glenn County. Suffice it to say that it is important that land use projections be grounded in reality, and that simply designating land for some desired use does not cause it to actually be developed.

When calculating the acreages needed for various land uses, other factors must also be taken into consideration. One factor is the amount of vacant land already planned and zoned for each particular use. Another factor is the assumptions made with regard to density of development. For example, if it is assumed that residential development in the unincorporated area will occur on one and five acre parcels, obviously far more land will be needed for residential use than if all new development were planned for 6,000 square foot lots. Finally, the general plans for the cities need to be considered, and an allocation made of projected population growth between the two cities as well as the unincorporated area of the county and unincorporated communities such as Artois, Elk Creek and Hamilton City.

The 1991 Glenn County Profile has projected a population increase of 5,400 persons by 2005. Projected out to 2010, the increase is an estimated 8,563 persons. The 1991 Orland Area General Plan is based on an assumption that the rate of growth in Orland is expected to increase from its present level of under 2.0 percent annually to around 5.0 percent annually as a result of growth pressures from Chico. Based on this assumption, the City's population growth would account for 8,344 persons, or 97.4 percent of the county total by 2010.

The Land Use Element of the Willows General Plan projects a population increase of 1,199 persons between 1990 and 2000, at an estimated annual growth rate of 2.0 percent. Projected out to 2010, the City's population growth would account for 2,697 persons, or 31.5 percent of the county total by 2010.

The total 1990-2010 projected population growth for the two cities is 11,041, which is higher than the projected population growth figure of 8,563 for the total county. Several explanations can be advanced for this discrepancy. It is possible that the county could lose population to the cities through annexations and/or relocation of persons from the unincorporated area to the cities. It is also possible that the county projections are too low, the city projections are too high, or some combination of both scenarios. The assumptions upon which the county and city projections are based need to be examined as part of the General Plan revision process, and decisions made regarding assumptions and population projections to be utilized, before land use forecasts can be formulated.

2.2.2 Land Use Designations

According to the State of California General Plan Guidelines (1990):

A land use element should contain a sufficient number of land use categories to conveniently classify the various land uses identified by the plan. Land use categories should be descriptive enough to distinguish between levels of intensity and allowable uses and there should be categories reflecting existing land use as well as projected development.

The County's existing Land Use Element, adopted in 1985, contained the following land use designations:

- Open Space/Recreation
- Timber/Forestry
- Agriculture Upland Grazing
- Agriculture Intensive
- Agriculture General
- Rural Residential
- Residential
- Commercial
- Industrial
- Commercial/Industrial Reserve
- Mineral Extraction
- Public Facilities

The Land Use Element also includes, for each category, a statement of purpose, a description of the character of each land use, a listing of typical permitted uses, and the parcel size/density range for the category.

In 1990, a general plan amendment was adopted which included revisions to the "Industrial" land use category, and which established the following commercial land use categories:

- Local Commercial
- Community Commercial
- Service Commercial
- Highway and Visitor Serving Commercial

For each of these categories, there is a statement of purpose and definition, a listing of typical permitted uses, a description of development intensities and criteria, and designation criteria which must be met for zoning proposals.

As part of the General Plan revision process, the existing land use categories (including their population density and land use intensity standards) will be reviewed to determine whether any categories need to be added, deleted or revised. It will be necessary, at the very least, to conform the text format for all of the categories. The current residential designation does not differentiate between single and multiple family residential uses, and a multiple family residential category may be desirable. In addition, there is local interest in eliminating the Mineral Extraction designation. Other categories may arise through the citizen and staff participation and review process.

2.2.3 "Fiscalization" of Land Use.

The "fiscalization" of land use, or "zoning for dollars", refers to the practice of planning and zoning to attract land uses which generate revenues for local government above and beyond the costs of the services they receive. Such uses are typically retail uses which generate large volumes of sales taxes, including automobile dealerships and regional shopping malls. The advent of "auto malls" throughout the state, some successful and some not, is an outgrowth of this trend.

This phenomenon has largely occurred in response to the decreasing percentage of local government revenues from property taxes since passage of Proposition 13, and the inequitable and insufficient distribution of sales tax and other revenues by the State of California. This situation is particularly acute for rural counties, which typically receive a low percentage of sales tax revenues (because most retail uses are located in cities), have high health and welfare caseloads, high unemployment rates, a low rate of property tax increase, and receive inadequate State funding to cover State-mandated programs.

The problem with "zoning for dollars" is that it is often at odds with sound land use planning principles. As stated succinctly in *Alternative Techniques for Controlling Land Use*, "Government decisions based solely on fiscal considerations may conflict with other explicit or implied community objectives such as adequate housing or a balanced community." Policies which value the preservation of agricultural land, and promote compact development within urban limit lines (see Section 2.1 above), are not compatible with the creation of commercial and industrial uses in agricultural areas or on the edge of an existing city. Yet counties which have

adhered to sound land use policies, including Glenn County, face serious budgetary problems every year. For this reason it is important that the County seek out areas that may be appropriate for commercial and industrial development outside of established urban areas and designate those areas accordingly on the land use diagram. Decisions should weigh the development potential due to location, access and availability of urban services, against the agricultural viability of the sites and surrounding area.

Another problem that is created is that of "unwanted" land uses. Residential development is considered to require more services than it generates in tax revenues (fiscal impact assessment methods typically do not take into consideration sales taxes paid by residents or the multiplier effect of their incomes; however, these monies may be spent in other jurisdictions). Planning and zoning to maximize one jurisdiction's tax revenues results in competition for land uses between cities and counties, cities and other cities, and attempts to "shuffle off" less lucrative uses into other jurisdictions.

Glenn County needs to determine its priorities and make land use planning decisions based on its vision and goals for the county over the long term. At the same time, fiscal issues cannot be ignored. Other counties, such as Yolo County, have agreed to refrain from urban development around cities in exchange for agreements to receive a share of city sales tax, redevelopment fund pass-throughs, and/or other funds. Similar tax-sharing agreements can be achieved through the annexation process, which requires that an agreement for sharing property taxes be reached between the annexing city and the county before an annexation can become final. Other counties have used this process as an opportunity to share in sales taxes as well. Finally, counties (through the California State Association of Counties and other means) must continue to work for changes at the State level to achieve an equitable distribution of tax revenues.

2.2.4 City/County Land Use Planning Interface

The two incorporated cities, Willows and Orland, have Spheres of Influence adopted by the Glenn County Local Agency Formation Commission (LAFCO). These boundaries are defined in State law as "A plan for the probable ultimate physical boundaries and service area of a local agency" (Government Code Section 56076), taking into consideration present and planned land uses, present and probable need for public facilities and services, present capacity of public facilities and adequacy of public services, and the existence of any relevant social or economic communities of interest (Section 56425). All annexations to these cities must be consistent with (that is, within) their adopted Spheres of Influence.

There are no such boundaries for the unincorporated communities in Glenn County, although there are adopted Spheres of Influence for community services districts and other special districts. The County has also adopted a planning boundary for the community of West Orland (in the West Orland Specific Plan), and has jointly adopted the Orland Area General Plan with the City of Orland, which establishes a Planning Area around the city.

Even though adopted Spheres of Influence exist for the two cities, there are several advantages to having a county- and city-adopted urban boundary or limit line as well. One reason is time

frame; while the Sphere of Influence, as an "ultimate growth boundary", represents an indefinite time frame, cities and counties typically plan in 10 to 20-year increments, and a Sphere of Influence may be too large for that purpose. The Sphere of Influence is also not a specific land use planning tool, in that it does not establish land use designations within the boundary. Finally, a Sphere of Influence is adopted by LAFCO only and does not represent a commitment on the part of the city or the county.

Cities and counties can use urban boundaries as a tool to achieve concurrence on land use issues on the edge of a city, by striving to adopt identical, or at least compatible, land use plans for the area within the boundaries. Glenn County has already largely achieved this goal with the joint adoption of the Orland Area General Plan. The Orland Area General Plan includes land use and zoning plans for both the city and county and establishes policy regarding changes in land use designation, annexation and development within the planning area.

In addition to urban/agricultural interface issues, it is not uncommon for cities and counties to disagree on land use plans for the area surrounding a city. Speaking hypothetically, the County has jurisdiction over an area which may one day be part of the adjacent city, and the city normally desires that the area develop in accordance with city policies and standards. The County may feel obligated to accommodate county residents and property owners, or simply take a different view as to which policies and standards are appropriate. In the case of Glenn County, it would be necessary for the County to develop and administer two sets of improvement standards, for example, to satisfy the different standards adopted by Willows and Orland. Another approach, which largely eliminates the need to adopt similar land use controls and improvement standards, is for the County to adopt policy that urban uses will not be allowed in the unincorporated area around cities, and that agricultural uses will be retained until such time as annexation and development occur.

The Orland Area General Plan establishes policy regarding the respective roles of the City and County in annexation and development. The Plan does not allow certain lands within the Orland Planning Area to be designated or zoned to allow parcels smaller than ten (10) acres in size prior to annexation. The stated purpose of this policy is to preserve land in parcel sizes large enough that it will be possible to annex them into the City and develop them. According to the Plan, "Since there are only a few areas which are adjacent to the City and which can be served by City services they should not be used for other types of less intensive development".

It is further stated that those areas shall be annexed to the City of Orland and shall be developed to full City of Orland development standards. Areas which will be part of the City of Orland in the future are required to be developed with streets and other infrastructure that will be compatible with City standards. According to the Plan, "this will prevent problems for the City in the future because the City will not be saddled with areas which do not meet the City standards and are thus more expensive to serve, a safety hazard, an aesthetic nuisance, and/or provide land use conflicts."

Other issues arise when substantial areas of urban settlement have developed over time in the unincorporated area adjacent to the cities. The communities of East and West Orland and North

and North East Willows are cases in point. Residents of such areas typically do not want to annex to the city (unless a particular service is needed or desired by residents) and, through the election process, can prevent annexation from occurring. However, cities often feel that residents of such areas use city services without supporting them through taxes or fees, and counties typically do not provide a level of service equivalent to cities (although services may also be provided by a community services district or other entity).

The General Plan revision will address land use planning issues around the City of Willows, including the unincorporated communities of North Willows and North East Willows. Those two communities have been largely developed for many years, no major changes are anticipated (except to upgrade existing conditions where needed), and annexation is considered unlikely. Areas to the south and east of the city are currently planned to remain in intensive agricultural use. The area to the west of the city, including the airport, is an area where city and county land use designations and a planning area boundary need to be coordinated.

2.3 Zoning

Zoning is the regulatory tool used most frequently to implement a general plan. The State Supreme Court has stated that "...zoning is intended to represent a considered, specific, and lasting implementation of the broad statements of policy of the general plan." It is a precise, immediate, property-specific method of land use control and regulation. State law requires zoning to be consistent with the adopted general plan. The County intends to change zoning on properties as necessary to achieve consistency with the revised General Plan.

In the American Farmland Trust publication *Saving the Farm*, three factors for effective zoning of agricultural areas for the protection of agricultural land are identified:

- Defining precisely the permitted uses within the zone.
- Determining the characteristics of agriculture in the area that is to be protected.
- Determining the suitability of a particular parcel for inclusion into an agricultural zone.

Glenn County has already applied exclusive agricultural zoning to large areas in the foothills and on the valley floor which meets the criteria set forth above. However, with the exception of lands in Williamson Act contracts, property owners can apply for general plan amendments and changes of zone to a nonagricultural classification. The current General Plan does not address the circumstances under which such requests should be approved or denied.

The County's agricultural zones allow individual residences, and farm labor camps and structures for transient labor with a conditional use permit, but do not allow subdivisions. Additional residences are permitted in some zones if they are occupied by relatives of the owner or employees who work on the property. Such provisions are practical in light of the distances, in many cases, between farms and communities, as well as the need for an on-site presence to prevent theft and vandalism.

This is also an opportune time to review the County's Zoning Code to determine whether any new zones should be added to the code to promote the implementation of the land use designations which are a part of the General Plan. The County may find it desirable to add some provisions to the code to provide more flexibility in land use control. The major disadvantage of such approaches is the additional staff time and resources required to administer them. If the County determines to eliminate the "Mineral Extraction" land use from its General Plan, it will also be desirable to examine the need for the E-M, Extractive Industrial Zone. Examples of some potential zoning tools which the County may wish to consider are described below.

2.3.1 Gross vs. Net Acreage

Gross and net acreage refer to total lot or site area and total area minus easements, rights of way, public and private roads and streams and other unbuildable areas, respectively. The Zoning Code establishes minimum lot areas for the rural residential zones, as follows:

Rural Residential Estate Zone	(RE)		
Sub-Zone		RE-1	40,000 sq. ft.
		RE-2	2 acres
		RE-5	5 acres
		RE-10	10 acres

The ordinance is silent as to whether it refers to gross or net acreage. However, in the Single Family Residential (R-1) and Multiple Family Residential (R-M) zones, the ordinance states that the minimum lot area refers to net square feet or acreage. The lack of specificity for the RE zone can lead to confusion on the part of County officials and the public. In practice, the County Planning Department has applied a gross acreage standard to parcels of five or more acres, and a net acreage standard to parcels smaller than five acres. This standard is not uncommon in other counties. It would however, provide greater clarity to establish a policy regarding density standards which guides this interpretation, implemented by amendment to the Zoning Code.

2.3.2 Conditional Zoning and Development Agreements

Conditional rezoning, also known as contract zoning, is defined in the guidebook Alternative Techniques for Controlling Land Use as follows:

The attachment to a rezoning of special conditions that are not set forth in the text of the ordinance and do not generally apply to land similarly zoned. Conditional rezoning adds flexibility to the land use control process by allowing local decisionmakers to tailor zoning restrictions to the character and location of the rezoned land and to the potential impacts of the proposed use.

The guidebook describes three categories of conditional rezoning, while noting that other variations may exist:

- A requirement that final development plans be submitted for approval to the board of supervisors
- A restriction of the uses allowable on the rezoned property; for example, disallowing uses otherwise permitted within the zone classification if they will generate a high volume of traffic
- The imposition of special development requirements, such as an extra large setback from an adjoining use or more intensive landscaping

Conditional zoning offers a greater opportunity to control the type and quality of permitted uses, and/or mitigate environmental impacts, than is afforded by zoning alone. Examples of some permitted uses in County zoning categories which might generate interest in conditional zoning include sawmills in the FA zone, fish farming operations in the AT and RE zones, and auto repair in the RE and R-1 zones. Conditional rezoning is implemented through execution of an agreement between the property owner and the County, which is recorded and runs with the land.

Similar, but not identical, to a conditional zoning agreement is the development agreement, a tool established by Section 65864 et. seq. of the Government Code. The major difference between the two types of agreements is that a development agreement locks in place the applicable land use regulations and development standards of the County at the time the agreement is executed, while the conditional zoning agreement may not. Either tool would be useful in providing Glenn County with a greater measure of land use control.

2.3.3 Clustering

Cluster zoning is defined in the 1990 State of California General Plan Guidelines as:

...a district which allows the clustering of structures upon a given site in the interest of preserving open space. Cluster zones typically set an allowable density and minimum open-space requirement to encourage the clustering of structures.

According to the publication of the American Farmland Trust, *Saving the Farm*, clustering can reduce sprawl in rural areas where limited development is allowed to occur. The cluster zoning is typically achieved through a concentration of the overall gross density of development permitted on a site to a smaller portion of that site. For example, instead of ten houses on a 40-acre parcel, using four-acre lots, a clustered development would place the ten houses on ten acres, using one-acre lots, or five acres, using half-acre lots. Using this tool, agricultural land, open space and sensitive environmental areas can be preserved, while at the same time allowing some development (usually residential) to occur. In theory, clustering should reduce development costs by reducing the length of roads and utility lines which must be constructed. If such developments are outside urban limit lines, however, the overall costs of providing public services will not be reduced.

In Alternative Techniques for Land Use Control, it is noted that cluster development "can be used as a form of buffer where residential development is permitted next to farmland; the housing is clustered away from the farmland and the development's open space acts as a buffer between the two uses." This concept is valid only if the location is determined to be a permanent urban development boundary. If development is ever permitted to occur beyond the buffer, it will cease to function as a buffer, it will probably lose its agricultural viability, and the cost of providing services beyond the buffer will increase.

Cluster development is defined in the Glenn County Zoning Code as "three or more detached buildings located on a parcel of land and having common open space areas." The Glenn County Zoning Code provides for clustering in its Planned Development Residential (PDR) and Planned Development Commercial (PDC) zones, which require a conditional use permit for a specific plan of development. As with all zoning, such zoning must be consistent with the general plan. Clear policy on this subject in the General Plan would provide guidance to staff, the public and decision makers regarding the suitability of cluster development in various parts of the county.

2.3.4 Planned Developments

Local interest has been expressed in providing for new, larger-scale planned developments in Glenn County which are not part of existing communities. It is anticipated that such communities would be somewhat self-contained, providing some employment opportunities, commercial development, public facilities and recreation as well as residential uses. New development at a sufficiently large scale provides opportunities for higher density development and a community design with a pedestrian orientation. Such an orientation provides an alternative to the private automobile for short trips by providing more direct, "pedestrian-friendly" access within a development rather than cul-de-sacs, circuitous street systems and routes which are unpleasant or dangerous to negotiate on foot.

The County's Zoning Code already includes zoning districts which allow these types of developments. The County's existing Planned Development Residential ("PDR") zone allows "creative and innovative developments that are environmentally pleasing through the application of imaginative land planning techniques not permitted within other residential zones with fixed standards." This zone also allows local commercial uses and resort commercial uses when the development is of a certain size, as well as recreation facilities and community facilities. A conditional use permit for a specific plan of development is required, and a rezoning application must be accompanied by a general plan of development unless the rezoning is initiated by the County to implement the General Plan or an adopted community plan.

The Zoning Code also includes a Planned Development Commercial ("PDC") district for "creative and innovative commercial or industrial developments that are environmentally pleasing through the application of imaginative land planning techniques not permitted within other zones with fixed standards." This zone allows commercial and industrial uses and recreation facilities, and has requirements similar to the PDR zone.

While the Zoning Code currently provides the tools for implementing the planned development concept, the General Plan should provide guidance as to the suitable location for such developments. Appropriate locations can be designated on the land use diagram, or can be determined through policies and performance criteria such as existing land use, surrounding land use, soil capability, agricultural preserve status, existing parcel size, surrounding parcel size, cropping history, access, jobs/housing balance, etc.

2.4 Quality of Life

The term "quality of life" does not have a precise definition. When applied to a community, it usually refers to such value-related factors as a feeling of personal safety, knowing one's neighbors, good schools, a sense of community, scenic quality, clean air and the absence of some more urban characteristics such as traffic congestion, noise, smog and gang violence. While a general plan cannot create a desirable quality of life, it can establish policies designed to maintain and enhance the qualities which already exist in Glenn County.

2.4.1 Design Review.

The cities and communities in Glenn County are still small and unchanged enough that they embody a rural, small-town atmosphere which is regarded by many as a community asset worth preserving. The older homes and commercial buildings evoke an earlier era which many communities today are working hard to restore. "Neo-traditional town planning", which promotes grid street systems and shopping within walking distance of homes, already exists in most Glenn County communities. While the County General Plan does not apply inside the cities of Willows and Orland, it can include policies designed to preserve the desirable physical and design features in communities such as Hamilton City, and carry them over into new development, so that old and new development appear compatible with one another. According to the State Office of Planning and Research, 23 counties currently have design review boards, and 29 (including Glenn County) have design review procedures.

The County's Zoning Code includes design guidelines and a development review process for multiple family, commercial and industrial development. The development review process may be waived if a conditional use permit is required. The guidelines establish desirable and undesirable design characteristics and guidelines for community/neighborhood commercial uses, heavy commercial/light industrial uses, shopping centers, signs, landscaping, circulation and parking, site preparation, utilities and lighting, and energy conservation. The inclusion of policies in the General Plan would evidence a firm commitment by the County to the principles embodied in the guidelines. The goals established in the guidelines are as follows:

- To encourage attractive buildings and landscaping which reflect the values of the County.
- To project a positive image to the traveling public which enhances local business opportunities.
- To promote architectural diversity and creative, cost effective design solutions which are compatible with the rural agricultural environment of Glenn County.

- To provide safe and efficient access and parking while minimizing conflicts between vehicles and pedestrians.

In practice, the County has found these guidelines to be ineffective. Some level of design review has been achieved through the Planned Unit Development process, which is also a part of the Zoning Code. The County may want to consider limiting the application of a design review process to selected areas of the county, such as within the Spheres of Influence of Willows and Orland, compatible with city requirements, and along the I-5 corridor (see Section 2.4.2 below).

2.4.2 I-5 Corridor

The Interstate 5 corridor through Glenn County represents a major opportunity for the County, as well as the cities of Willows and Orland, to attract development which is highway or visitor oriented, as well as industries which value freeway access. The design guidelines in the Zoning Code state that "it is important that development provide a positive initial impression which complements the natural setting and predominantly rural character of the area...Retail and tourist trade in an area can be greatly enhanced by the projection of a positive image to the traveler and resident alike."

The land along I-5 in Glenn County is primarily agricultural. The General Plan can designate specific sites in the unincorporated area along I-5 for highway commercial and industrial uses based on such criteria as access, availability of public services, agricultural capability, flood zones, etc. The designation of such sites would provide for future development and limit the conversion of agricultural land to these specific areas. The Plan can also establish unique design standards for such areas to assure that an aesthetic appearance is achieved.

2.5 Land Use/Growth Opportunities, Constraints and Conclusions

- Although the County does not intend to adopt a separate agriculture element of the General Plan, the role of agriculture and preservation of agricultural land will figure prominently in the revised General Plan, receiving special attention in the land use, conservation and open space elements. The existing Land Use Element has goals and policies to protect agricultural land and the County has zoned large areas for exclusive agricultural use. In order to assure the continued preservation of agricultural lands, the General Plan should establish standards and criteria under which General Plan amendments and zone changes will be permitted or denied. Such criteria might include existing land use, surrounding land use, soil capability, existing parcel size, surrounding parcel size, cropping history, etc., and assure that the best agricultural land is retained for agricultural use, while allowing some less valuable land to be developed.
- Although actual complaints related to urban/agricultural land use conflicts are few in number, as growth and development increase so does the potential for such conflicts. The General Plan should limit scattered rural residential development and establish urban limit lines in order to minimize potential conflicts, by continuing to require conditional use

permits for agricultural processing plants and facilities in exclusive agricultural zones, and also by expressing continued support for the Right to Farm Ordinance.

- A planning area which functions as an urban limit line has already been established jointly by the County and the City around the City of Orland. Urban limit lines should be established around the City of Willows and the unincorporated communities of Hamilton City, Artois, Elk Creek, Butte City and the Capay area in order to allow adequate land for new urban development and protect surrounding agricultural lands. These boundaries should be based upon realistic projections of population growth and local service delivery capabilities. The General Plan should include policies which define and establish standards for the location of such boundaries, and provide for city/county coordination of land use planning within the boundaries. Policies should encourage infill of existing urbanized areas and provide for higher densities where public facilities and services allow.
- In exchange for establishing urban limit lines around Willows and Orland and directing new development to the cities, the County should seek equitable tax-sharing agreements for proposed annexations which address property tax, sales tax and (if applicable) redevelopment funds.
- Some consideration should be given to the utility of providing "buffers" between existing or planned urban development and agricultural lands. Where it can be determined that urban development will not expand beyond a certain point, potential land use conflicts may be minimized by designating areas adjacent to agricultural parcels for lower densities, such as rural residential, and/or clustering development away from adjacent agricultural parcels. Buffers should not be utilized in areas where it can reasonably be determined that urbanization will continue to occur, since the lower density areas could ultimately be surrounded by urban development, resulting in increased public services costs and inefficient land use patterns.
- Old "paper" subdivisions pose potential problems for the County in the future should lots be sold and developed at some point. The County should prioritize areas with such subdivisions which qualify for the merger process under State law, and proceed to merge lots in these potential problem areas. To address lots which may have already been sold individually, the County's Land Division Ordinance should also be amended to reference specific standards which such lots would be required to meet prior to development, including but not limited to standards for sewage disposal, domestic water supply, and access.
- In order to maintain the integrity of the exclusive agricultural zones and the General Plan, while also promoting the spirit of the law, the Zoning Code should allow for variances or exceptions for parcel size which are consistent with the General Plan, which are within 10 percent of the required minimum parcel size, or which are necessary due to short sections or existing physical barriers such as canals, roads, streams, levees, etc.

- Policies regarding irrigation water service to rural residential parcels by water suppliers may conflict with County land use policies. The County should request private water companies to increase the minimum parcel size for service, and request LAFCO to require that parcels below 10 acres in size be detached from water or irrigation districts.
- The General Plan should not attempt wholesale changes in existing and planned land use patterns, but rather refine existing plans to assure that adequate provision is made for all types of uses and that land use patterns are coherent. The issue of population projections and distribution must first be resolved before land use needs can be determined.
- The General Plan Guidelines require that general plans include standards for population density and building intensity for each land use category. In order to distinguish between different types of residential uses, the General Plan should provide for single and multiple family residential categories.
- The General Plan should establish locational criteria and standards for planned developments which are not part of existing communities, based in part on agricultural suitability, jobs/housing balance and availability of public services. This performance approach allows greater flexibility than specific designations on the land use diagram. New developments within existing communities should also attempt to incorporate a pedestrian-oriented design if feasible.
- The Zoning Code should be revised as necessary to achieve consistency with the revised General Plan and to provide the full range of implementation tools and flexibility desired by the County. A standard for gross vs. net acreage should be established. Provision for conditional zoning, development agreements, and clustering should be incorporated into the Zoning Code. The design review guidelines should be refined and applied to specific areas in order to be more workable and effective.

3.0 TRANSPORTATION/CIRCULATION

Background

A broad range of issues exists for the transportation system in Glenn County. This results from the variety of travel modes which provide the movement of freight and persons for a diverse group of users. The County is faced not only with maintaining the adequacy of the existing system but providing for future needs. The analysis of transportation issues is a four-step process, as follows:

- Identify issues;
- Establish the appropriate role for Glenn County;
- Establish priorities, and
- Generate adequate funds to meet, at a minimum, all high priority needs.

Of particular importance in this analysis is the Glenn County Regional Transportation Plan (RTP), prepared in 1986 and updated every two years, and the 1990 Transportation Needs Assessment and Funding Study.

At this stage in the development of the General Plan, the focus is on step 1 but the other steps are given consideration, as appropriate and where adequate information exists. Step 2 recognizes that the potential role of the County will vary significantly from issue to issue. For example, the County has very limited jurisdiction for rail services but full responsibility for County roads.

Many of the elements of the transportation system are in part funded or operated by other public agencies or private companies. Addressing the issues in many cases will not be the sole responsibility of the County but will require a cooperative and coordinated process. Steps 3 and 4 require the matching of needs with available funding. Funding is an important issue by itself but also impacts many of the other issues.

Specific Concerns

3.1 Transportation Priorities and Funding

Funding for road projects within Glenn County is derived from five sources, as follows: (1) categorical federal funds for Interstate, Primary, and Secondary road mileage administered by the State; (2) categorical federal funds for miscellaneous federal programs, such as the Forest Highway program; (3) miscellaneous categorical funds administered by the State for safety, railroad crossings, and bridge rehabilitation; (4) non-categorical road funds from the State (priorities selected by County), and (5) locally-generated funds. Table 3-1 presents a comparison of the estimated needs and revenues based on existing funding programs. It shows that over the next twenty years needs are estimated to be approximately 27 percent greater than the existing source of revenues. The shortfall will exist primarily for the maintenance and upgrading of existing County roads. Table 3-2 presents a percentage breakdown by cost of the estimated road and public transit needs.

The County is confronted with the difficulty of matching increasing needs with a fixed amount of revenue from existing sources. This process involves a combination of prioritizing needs to distinguish essential projects from those that are only desirable or perhaps even unnecessary and also to develop new sources of local funding. Separate issues listed in the 1986 Regional Transportation Plan, as follows, address both the supply and demand sides of the equation -- prioritizing needs and developing adequate funding resources.

- A 5-year prioritized listing of desired highway improvements and unmet needs is necessary to make the best use of funds and provide an emphasis toward improving those routes most frequently used within Glenn County (p. 34).
- Since the transportation facilities and transit systems of the Glenn County region have needs greater than those obtainable by available funding under current revenue sources and allocation procedures, new sources of funding should be sought (p. 35).

The County in 1990 took a major step towards development of a long-range prioritization of road improvements with the Transportation Needs Assessment and Funding Study, prepared by CHEC Consultants, Inc. in co-operation with California State University, Chico. It provides a needs assessment in five-year increments for the 20-year period 1991-2010 and relied heavily on the results of a Pavement Management System developed concurrently by the study team.

The program assumes that all structural needs will be met within the first five years of the program and redone ten years later, and that all roads with substandard widths will be widened within the 20-year period. The study balanced the needs so that the range of the five-year programs was approximately \$38 to \$49 million. The needs assessment, however, did not include any additional road mileage that might be required by new residential or commercial/industrial development.

The needs assessment study analyzed several strategies to address the forecast shortfall between needs and existing revenue sources. Table 3-3 shows four different scenarios for a county-wide sales tax and unchanged income from assessment districts and developer impact fees, based on that analysis. Scenario 1 has a 1/2 cent sales tax. Scenario 2 is based on the minimum sales tax (0.53 cents) to meet the 20-year needs, Scenario 3 is based on the minimum sales tax (0.93 cents) to meet forecast needs during each five-year period, and Scenario 4 is based on the minimum sales tax (0.76 cents) to meet all needs by itself.

The funding analysis shows that the County needs to raise a significant percentage of road construction revenues from local sources if it is to meet future needs (27.2 percent of total 20-year needs in constant dollars). The issue of whether or not all needs should be funded is addressed in more detail in issues related to maintenance of existing systems (Section 3.2) and functional classification (Section 3.5). It is possible that standards need to be relaxed for certain conditions so that needs can be more in line with revenues. Whatever sources are selected, their applicability to identified needs and their reliability over time need to be addressed. The accuracy of estimates for traffic impact fees, for example, depends upon the amount of development that actually occurs. Assessment fees require special elections and can only be used for projects within the boundaries of the assessment district. Even if these funding sources are implemented, the need exists for a flexible funding source to pay for maintaining the existing system. Projects related to pavement management (structural needs and seal coating) over the next twenty years will account for approximately 44 percent of total projects not on State highways. These projects in general are not those that are funded by assessment districts or impact fees, but require a flexible, ongoing source of income such as a sales tax or property tax.

The role of categorical State and federal funding over time also needs to be addressed. It is possible that the federal contribution to non-Interstate roads will decrease over time and that the County minimum allocation of State funds will continue to be spent primarily on Interstate 5. In this case, it might be necessary for the County to generate local funds to improve sections of the State highways. Numerous counties in the State have included projects on State highways in programs funded by an increase in the county sales tax.

3.2 Maintenance and Improvement of the Existing Road System

The size of the road system within Glenn County is not expected to change significantly over the next twenty years. In the 1986 Regional Transportation Plan, the inventory of existing mileage was 1,421 miles for all categories, and the only change forecast by 2005 was an additional ten miles of local road mileage. Also, no mileage was expected to change from one category to another. Although growth that may have been unforeseen in 1986 may occur, clearly the emphasis during the next twenty years will be on maintaining and improving the existing system.

Projects on the existing road system can be divided into four categories, as follows:

1. Maintaining the existing roadway with its present dimensions and surface type. Virtually all of the projects in this category are identified through either the State or County pavement management systems. They range from reconstruction where major surface and subsurface failures exist to periodic seal coating.
2. Major improvements within and outside of the right-of-way to minimize potential damage from flooding. For example, projects have been identified on Route 162 east of Willows.
3. Functional improvements. These improvements include widening of the roadway surface to reduce congestion or to bring the roadway up to County width standards.
4. Spot improvements to improve safety. Such improvements can include installation of traffic control devices, realignment of intersections, and at-grade rail crossing controls as well as others.

The listing of issues in the 1986 Regional Transportation Plan highlights categories 2 and 4, as follows:

- The need for flood prevention along Glenn County's system of roads is a major issue (p. 33).
- The need for replacement fill dirt to stabilize highway shoulders, medians, and fills at various bridge structures and County road approaches along Interstate 5 is a problem that is extensive in Colusa County and occurs along portions of Interstate 5 in southern Glenn County (p. 34).
- The need for highway intersection traffic signals, turning pockets, and other safety improvements to the roadway network in Glenn County should be determined and focused on locations with greater than average accident histories (p. 34).
- The need for improved safety at railroad grade crossings within Glenn County is an issue that should be dealt with as funds become available (p. 34).

Despite the justifiable concern about flooding and safety, projects in these categories are estimated to account for only ten percent of County road needs in the next twenty years, as follows: Flood Protection: \$8 million on Highway 162; Minor Street Improvements: \$2.5

million; and Bridge Rehab, Safety, and Rail Crossings: \$6.8 million. Except for minor street improvements, a high percentage of the funding for these projects will come from State categorical programs. The ability to meet needs in the other two categories -- pavement management and functional improvements to County roads -- should also be of concern. The functional improvements indirectly address safety issues because accident rates will increase on roads that do not meet design standards or have an acceptable level of service. Projects derived from the pavement management system protect a considerable investment in the existing road system.

3.3 Alternative Transportation Modes

Alternative modes for the transportation of persons include public transit, and for the transportation of persons and freight include rail and aviation. Issues related to rail and aviation are discussed under Section 3.4, Promotion of Economic Development. The 1986 Regional Transportation Plan did not list any issues associated with public transit, but the results of the public opinion survey conducted as part of the development of the Plan showed a strong desire for improved public transit. Respondents were asked to prioritize the importance of the following four transportation elements: public bus or taxi system, bikeways along existing roads, better maintenance on the existing road system, and improvements to the existing road system. Public transit was selected as the number one priority most often, and it ranked second when a point system was used to rank responses.

Public transit demand in low-density areas correlates strongly to the number of elderly and disabled persons. The 1990 Census shows that from 1980 to 1990 not only the number but the percentage of elderly in the county increased (12.6 to 13.4 percent), and the percentage of disabled remained approximately the same at 2.5 percent.

In 1991, the County completed a Transit Feasibility Study, which analyzed four service alternatives, as follows: Alternative 1: minor modifications to existing taxicab and social service operations; Alternative 2: expand service through better coordination; Alternative 3: add accessible vanservice between Orland and Willows; and Alternative 4: add service to Chico. Based on that report, the following issues need to be addressed:

- Improve existing demand-responsive services through better coordination and expansion of services as demand warrants. The 1986 Regional Transportation Plan includes an action plan for the coordination of social service transportation services, and the recommendations need to be carried out and updated on a regular basis.
- Participate in cooperative planning efforts to develop new intercity bus services if financially feasible. The two priorities would be service between Hamilton City and Chico and service between Orland and Willows.

Available local funds for public transit come from the State's Transportation Development Act (TDA). Counties are required to first meet all reasonable public transit needs with these funds, and remaining funds can then be used for road projects. Glenn County at the present time

expends approximately one-third of the funds on public transportation. If it is established that there are unmet transit needs and additional TDA funds are expended on public transit, additional local funds would be required to meet road needs.

3.4 Promotion of Economic Development

Economic development, as it relates to transportation, has three components: (1) increased recreational usage requiring access on State and County roads; (2) industrially-related activities, such as timber, agriculture, and manufacturing; and (3) medium-scale commercial development to serve concentrations of residential development. Refer to Section 6.0 of this Issue Paper for a complete discussion of economic development issues.

No new major recreational destinations have been identified during the next twenty years. One objective would be to increase participation of both residents and visitors in small-scale recreational activities, such as fishing, hunting, camping, and general tourism. If increased residential development is planned in the corridor between Orland and Chico, it will stimulate new commercial development.

The availability of efficient transportation services and facilities can play a role in promoting existing industrial activities and attracting new activities. Elements of the transportation system related to industrial activity include the following: road systems with adequate structural strength to support large truck movements on a regular basis; road systems with adequate levels of service throughout the day for freight and employee movements; availability of adequate rail loading and unloading sites for freight and regular service to these sites; and airport facilities to support agricultural operations (crop dusting and limited freight and passenger movements in small, private planes). Most of the transportation services that would serve development activities in the county are located outside of the county, including trucking companies and railroads.

Four issues were identified in the 1986 Regional Transportation Plan that relate to economic development, as follows:

- The need for improved motor vehicle transportation facilities in Glenn County for moving commodities oriented to farming, ranching, and forestry activities is a high priority (p. 33).
- The need for developing and extending Forest Highway 7 (State Route 162) westward to Covelo should be assessed to determine if Federal funds could be obtained to provide better access for timber hauling and recreation (p. 34).
- The need to limit adverse impacts to public airport facilities from commercial and residential encroachment, through height and proximity restrictions is a future issue that should be pursued (p. 35).

- The need for more local rail service should be explored to determine if the construction of a local railroad freight depot in Orland (rather than carload service only) would improve transportation options to Glenn County agrarian, forestry, and local businesses (p. 34).

The first issue recognizes that the road system is the primary means of moving development-related freight to, from, and within the county and that this system must be maintained and upgraded as necessary to acceptable standards. It emphasizes that truck loadings need to be considered in the design and maintenance of both low and high-volume County roads. This issue corresponds to Section 3.2 above. The Forest Highway issue also relates to an existing road facility, but the emphasis is on recreation and forestry rather than farming and ranching. The ability to address this issue will depend on the availability of Federal funds and road improvements in Mendocino County, but it appears likely that funds will be made available by the Federal Highway Administration.

For the rail mode, the ability of the County to influence the extent or quality of rail service is very limited. It can serve in an advocacy position and possibly help finance rail loading and unloading facilities for common or private uses. However, it must ensure that any expenditures will generate the intended results and not adversely affect the ability of the County to address other transportation needs, and demonstrate that the project would not have been accomplished without County involvement.

The County addresses the issue of the aviation mode primarily through regular updates to the comprehensive land use plans for the two public airports it operates. The latest updates were in 1991 for the Willows Glenn County Airport and the Orland Haigh Field Airport. These plans specify allowable land uses in the clear, approach, and overflight zones. Long-term aviation needs of economic activities in the county can be met as long as leases on airport land are aviation-related.

3.5 Design Standards and Functional Classification

Three categories of road systems are relevant to the planning and implementation of roads in Glenn County. They are the Federal classification system, a county-wide functional classification system, and County road design standards. Although these systems are related, each serves a separate purpose, and problems arise in trying to make one system totally consistent with another. In 1991, a major change in the Federal classification system occurred. The Interstate system and major Primary roads now make up the National Highway System (NHS). What used to be the Federal Aid to Secondary System (FAS) and Federal Aid to Urban Systems (FAU) now make up the Surface Transportation Program (STP) system. New system designations have not as yet been made within the State of California. With increased flexibility for all Federal and State funding programs, distinctions between programs are less important than they have been in the past.

The functional classification system is used to establish construction standards and to ensure the efficient movement of traffic between origins and destinations. It is based on projected land use and traffic conditions at the end of the planning period, in this case twenty years. In

development of the system, consideration is given to traffic levels as well as network continuity and the location of major trip generators. Generally, the designations for the Federal-aid system reflect the functional classification system, but there is no requirement that the two coincide in all respects.

The official documents specifying functional classifications for roads within Glenn County include the State/County Road System Map developed jointly by the County and the State, the Circulation Element of the County General Plan, and the Regional Transportation Plan. The current functional classification system categories and the road designations vary significantly between each of these documents. The classifications in each of the documents are as follows:

State/County Road System Map (updated 1990)

- State Highway
- Arterial
- Collector (no designations)
- Minor

Circulation Element of County General Plan (1987)

- Major Divided Street or Road
- Major Street
- Collector Street or Road
- Local Street or Road

Regional Transportation Plan (1986)

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local Road
- U.S. Forest Service Road

The Glenn County Regional Transportation Plan, first adopted in 1975 and last updated in 1986, based the functional classification system on Federal funding categories. For example, interstates were classified as Principal Arterials, primary roads as minor arterials, and secondary roads as major collectors. The reliance on the Federal aid system for classification prevented any County roads not on the FAS system from being classified as a major collector.

In the current Glenn County Circulation Element (adopted in 1987), the classification system was based on the three major classifications in the subdivision design standards, as follows: (1) Major Divided; (2) Major Road (4 lanes), and (3) Two-Lane Collector/Local/Cul-de-Sac. Separate standards are provided for urban, estate, and rural/agricultural conditions. These classifications are confusing because they equate function with number of lanes, which is not

always the case. For example, many of the roads classified as Major certainly will not have four lanes within 20 years.

Examples of current inconsistencies between the three documents are as follows:

- Road 99W between Orland and Willows and Road 200 West of Orland. Listed as an Arterial in State/County System Map, a Major Street in Circulation Element, and a Minor Collector in RTP.
- State Route 162 between Road 306 and Road 406. Listed as a State Highway on the System Map, a Collector in the Circulation Element, and a Major Collector in the RTP.
- Black Butte Road from Newville Road to south end of Black Butte Reservoir. Listed as an Arterial in System Map, a Major Collector in RTP, and a Local Road in Circulation Element.

No issues were listed in the 1986 Regional Transportation Plan. Specific concerns identified at this time include the following:

- Need for a consistent, county-wide functional classification system. The functional classification systems used in the RTP and circulation elements should be identical and, to the extent possible, should be as consistent as possible with the System Map jointly developed by the State and County. Such consistency will become more important if increased development outside of city boundaries is planned. Decisions regarding the functional classification system should reflect the following considerations: traffic volumes, alternate routes, breakdown of local vs. regional traffic, adjacent land uses, and truck usage. At the present time, the functional classification definitions are based solely on traffic volumes.
- Difference between design and traffic requirements for rural and urban streets and roads with the same functional classification. The design requirements for arterials, collectors, and local roads can differ significantly between rural and urban areas because of traffic characteristics (travel speed, truck percent, and time-of-day distributions) and abutting land uses. It is recommended that classifications be given separate rural and urban designations, where appropriate. The urban designations would be used not only around city boundaries but in unincorporated areas that are around incorporated cities or in larger unincorporated communities such as Hamilton City. As an example, narrowing the width requirements for rural local and minor collector roads to less than 40 feet of road surface would reduce the functional needs and make it easier to focus available resources on high priority projects.
- Status of the unbuilt section (5.90 miles) of FAS V455 between Road 305 on the west and Road 200A on the east. No projects on this road have been identified in the 1990 Road Needs Assessment Study or in the 1986 RTP. The County has decided that needs on FAS mileage already in place are greater than the construction of this segment. The County should consider eliminating this road section from the FAS system and reducing its

functional classification from major collector. It is likely that the next Federal Surface Transportation Act will significantly alter the existing Federal classification system.

3.6 Corridor Studies to Identify Long-Range Transportation Needs

Highway 32 between I-5 and the county boundary at the Sacramento River is the only major road section with level of service below "C" at the present time. Significant growth in Chico and Hamilton City is expected to create additional congestion unless capacity is increased. The Caltrans Route Concept Plan, which is based on traffic forecasts to the year 2010, calls for widening of the road section between Hamilton City and the county boundary to provide continuous left-turn channelization. The ultimate transportation corridor planned by Caltrans is five lanes for the first one mile of State Route 32 east of I-5, two lanes for the next 8.6 miles, and five lanes again for the next 1.3 miles to the county boundary.

The Needs Assessment Study conducted for Glenn County in 1990 recommends a more aggressive improvement program for Highway 32 than is contained in the Caltrans Route Concept document. Widening to four lanes is recommended for the entire section within Glenn County by the year 2000, with widening of the section from State Route 45 to the Butte County line by 1995. The study suggests that an Orland bypass should be studied because State Route 32 cannot be widened within the city limits within the existing right-of-way.

Highway 32 currently passes through the center of Orland and on the northern edge of Hamilton City. Widening Highway 32 in these areas to the ultimate width of five lanes likely would eliminate some existing businesses and create a barrier effect that would impact the overall development of the community. An alternative would be a bypass route to the north of the two communities. If the bypass route proved to be desirable from both traffic and land use perspectives, Caltrans would relocate State Route 32 to the bypass route, and the County/City of Orland, as appropriate, would then be responsible for maintenance of the existing road section. County road maintenance costs, thus, would increase; and the County as well as the City of Orland would need to determine whether the advantages of a bypass route are adequately offset by the additional road maintenance costs and other factors, such as the loss of land that would be required by the bypass route.

3.7 Regional Transportation Planning Process

The on-going process of updating the multi-modal Regional Transportation Plan, including its goals, objectives and policies, is a cooperative, coordinated, and comprehensive process that involves elected officials, technical staff, and the general public throughout. The decision-making body for the process is the Glenn County Transportation Commission, which consists of three members of the County Board of Supervisors and three representatives of the two incorporated cities in the County, Orland and Willows. The Commission ensures that the plan is updated on a regular basis and is based on up-to-date data and the input of affected groups and agencies. A Technical Advisory Committee (TAC) includes representatives of staff from city and county public works departments, Caltrans, the California Highway Patrol, and the U.S. Forest Service. The committee is the focal point for establishing overall priorities and coordinating the development of projects that affect more than one jurisdiction or organization.

3.8 Cooperative Planning and Funding

The role that the County can play in planning for, funding, and operating the various services and facilities that make up the overall transportation system varies significantly. At one extreme, the County has major responsibilities for County roads that are not on the Federal-aid system. On the other hand, the County has little impact on the rail services that are provided within its boundaries. The timely implementation of needed improvements in the transportation system will require a coordinated and cooperative process that identifies needed projects, prioritizes them, and obtains adequate funding for implementation. In some cases, the County does not have a direct role in the funding or operation of services and facilities and is limited to an advocacy or brokerage role, e.g. promoting coordination among providers of social service transportation. The updating of the Regional Transportation Plan serves as the focal point for coordinating the policies and programs of existing agencies and companies funding or operating transportation facilities and services.

No specific issues were listed in the 1986 Regional Transportation Plan that were oriented primarily towards cooperative planning and funding. This issue is one that cuts across other categories of issues. Its importance depends upon who has responsibility for the funding and operation of services and facilities as well as such factors as location of problem areas. Specific issues listed below are items where coordination and/or cooperation by the County is critical to project implementation:

- Improved coordination of social service transportation providers.
- Timely funding for the improvement of intercounty routes, specifically Forest Highway 7 into Mendocino County and Highway 32 to Chico in Butte County.

In addition, the County could take a leadership role in advocating improvements to transportation services operated by private companies, such as Southern Pacific Transportation Company and Greyhound Bus Lines, where a consensus position can be generated.

3.9 Compatibility of Land Use Designations and Transportation Facilities

Incompatibilities between land use designations and transportation facilities can generate transportation impacts that may be expensive to mitigate and, in some cases, unable to be mitigated. Of particular concern would be the location of schools and hospitals and land uses along arterials, adjacent to railroad tracks, and in close proximity to interchanges and major at-grade intersections.

3.9.1 Land Uses Adjacent to Interchanges

Lands adjacent to interchanges which are not in Williamson Act contracts should be available for commercial development as long as the potential for congestion can be adequately mitigated for long-range traffic forecasts in a cost-effective manner. At the major interchanges serving Willows and Orland, the first priority should be on serving traffic unrelated to nearby development. Otherwise, congestion caused by nearby developments could result in areawide

impacts. Development at more rural interchanges likely will emphasize travel-related services, such as gas stations, restaurants, and overnight lodging. The same criteria should be applied at such locations, but the lower background volumes likely will make such developments feasible from a traffic perspective.

3.9.2 Appropriate Land Uses for the Functional Classification of a Roadway

Arterials emphasize the movement of through traffic, local streets emphasize access to adjacent property, and collectors provide a balance between access and mobility. It is important that land use designations reinforce the intended long-range function of a street. Single family dwellings should abut local streets and not arterials, and small commercial businesses serving neighborhood needs are more appropriately located on collectors than on arterials. Policies should be placed in the General Plan reinforcing this concept including limited or restricted access to arterial streets.

3.10 Transportation/Circulation Opportunities, Constraints and Conclusions

- The County will have difficulty over the next twenty years acquiring the necessary funding for transportation facilities and services to meet countywide needs, as currently described. The solution likely will be to address both the supply and demand side of the funding equation. On the demand side, design standards need to be carefully reviewed, as well as thresholds dividing essential from desirable improvements. On the supply side, the introduction of development fees likely will be the easiest to implement because they will require new developments to pay their fair share of roadway improvements and will not affect existing businesses or residents. Uncertainty exists as to the extent local residents are willing to support sales tax or assessment measures to support the maintenance and improvement of County transportation facilities.
- The management of the existing road system to achieve safe and efficient travel and to protect the existing infrastructure should be a top priority in the development of short and long-range capital programs. The County should have adequate resources to address concerns related to safety and flood protection issues. However, unless major new funding sources are developed, the County will have difficulty meeting all functional and pavement management needs on County roads.
- The likelihood exists that public transit needs will increase over the next twenty years throughout the county as population increases. The focus will be on the elderly, whose percent of the population can be expected to slowly increase. Also, the growth of traffic in the Highway 32 corridor between Orland and Chico likely will generate sufficient demand to support fixed-route bus service.
- The recommendation of the Needs Assessment Study regarding the Orland bypass for SR 32 should be expanded to include a Hamilton City bypass. No widening beyond three lanes (40 foot paved section), which is the current Route Concept Plan, should occur before a decision is made concerning whether a bypass route is needed.

- The County does not have direct responsibility for addressing some of the transportation issues which involve economic development, such as the desire for less-than-carload freight service. It should be careful about subsidizing projects that might not otherwise be financially feasible. Maintaining the existing system to acceptable design and level of service standards will have a positive impact not only on travel by the general public but in providing favorable conditions for economic development.
- The development of a revised functional classification system will be important in establishing a realistic road improvement program for the next twenty years and in developing realistic funding requirements for developers on a countywide basis. It is recommended that a consistent system be developed that can be adopted by the State, incorporated cities, and the County. The new system should reflect the different traffic characteristics and land use patterns that exist in urban and rural areas.
- For many elements of the transportation system, the County does not have the major responsibility for funding or operations. Problems related to these elements can only be addressed through development of formal or informal coordination and cooperation with appropriate agencies and affected interest groups. Combining resources to maintain and improve existing services will become more important because the gap between needs and financial resources is likely to increase.
- A compatible functional classification road system and land use designations can minimize traffic impacts, reduce the need for costly improvements to the road system, and promote orderly development of the General Plan.

4.0 HOUSING.

Background

The housing element is one of the seven mandatory general plan elements. Section 65580 et. seq. of the California Government Code contains directives for preparation of local housing elements. It is intended to direct residential development and renewal efforts in ways that are consistent with the overall economic and social values of the County and that work towards achievement of the State goal of accommodating the housing needs of Californians at all economic levels. The residential character of the county is, to a large extent, dependent upon the variety of its housing units, their location and maintenance.

The housing element is the County's official response to findings by the State Legislature that availability of decent housing and a suitable living environment for every Californian is a high priority. By identifying local housing needs, adopting appropriate goals and policies, and providing local legislation and programs to meet these needs, local government may be more effective in dealing with the housing needs of its residents.

In 1983 Glenn County adopted the Tri-County Housing Element which was prepared by the Tri-County Planning Council. The Tri-County Housing Element was a regional approach to meeting State and local housing objectives through a cooperative effort between Glenn, Colusa and Tehama counties and the cities within those counties. This served as Glenn County's Housing Element until 1984, when a revision was undertaken to reflect specific changes for Glenn County and the unincorporated area of Glenn County. The other counties and cities are responsible for maintaining their own respective housing elements. The existing Housing Element was adopted in 1989. Unlike other general plan elements, the time frame for adoption and updates of housing elements is specified in State law. Glenn County is required to adopt a housing element update by July, 1992 which has a planning period of five years (1992-1997).

Specific Concerns

4.1 Provision for Existing and Projected Housing Needs for all Economic Segments of the Community

Like most other areas of the State, Glenn County's goal of providing a decent home and suitable living environment for every family has not yet been achieved. The following analysis of current housing conditions documents Glenn County's housing needs relative to various segments of the population.

Housing need is a complex issue, consisting of at least three major components: housing affordability, housing quality, and housing quantity. In addition, certain segments of the population have traditionally experienced unusual difficulty in obtaining adequate housing. Those unusual difficulties experienced by the elderly, the handicapped, female heads of household, large families, the homeless and farm workers are discussed as special housing needs in this section.

Section 4.4 of the Environmental Setting Technical Paper contains a community profile with 1980 and 1990 data on the existing housing stock, housing types, total households, average household size, housing tenure, housing condition, overcrowding, elderly and disabled population, large families and female heads of household.

Table 4.1-1

**Table 4-1
Household Income by Monthly Owner Costs as a Percentage of Household Income
Glenn County Unincorporated Area**

Household Income	Percentage of Income					Total
	0-19%	20-24%	25-29%	30-34%	35%+	
Less than \$10,000	56	19	7	6	94	1901
\$10,000 - \$19,999	110	5	32	20	72	239
\$20,000 - \$34,999	150	72	29	5	47	303
\$35,000 - \$49,999	182	54	40	8	0	284
\$50,000 or more	277	45	0	0	0	322

1 Does not include 8 households not computed
 Source: 1990 Census of Population and Housing Summary Tape File 3 (Corrected)

Table 4.1-2

Table 4-2
Household Income by Gross Rent as a Percentage of Household Income
Glenn County Unincorporated Area

Household Income	Percentage of Income					Total1
	0-19%	20-24%	25-29%	30-34%	35%+	
Less than \$10,000	0	6	7	22	127	162
\$10,000 - \$19,999	22	42	26	70	140	300
\$20,000 - \$34,999	183	104	21	7	10	325
\$35,000 - \$49,999	100	13	0	0	0	113
\$50,000 or more	23	0	0	0	0	23

1 Totals do not include 271 households not computed.
 Source: 1990 Census of Population and Housing Summary Tape File 3 (Corrected)

4.1.1 Targeting of Most Serious Needs
Housing Affordability

State housing policy recognizes that cooperative participation of the private and public sectors is necessary to expand housing opportunities to all economic segments of the community. A primary State goal is the provision of a decent home and a satisfying environment that is affordable. The private sector generally responds to the majority of the community's housing needs through the production of market-rate housing. There are many components involved in housing costs. Some of these factors can be controlled at the local level, others cannot. The County can establish a goal to adopt local policies and procedures which do not unnecessarily add to housing costs.

Some of the effects or problems which result from increased housing costs include the following:

- **Declining Rate of Homeownership:** As housing prices and financing rates increase, fewer people can afford to purchase homes. Households with median and moderate incomes who traditionally purchased homes compete with less advantaged households for rental housing. This can be expected to result in lower vacancy rates for apartment units and higher rents. By the same token, stable housing prices and lower financing rates result in greater numbers of people who qualify to purchase homes.
- **Overpayment:** When housing prices rise, lower income households must be satisfied with less house for the available money. This can result in overcrowding which places a strain on physical facilities, does not provide a satisfying environment, and eventually causes conditions which contribute to both deterioration of the housing stock and neighborhoods. Buying a new home has become a major obstacle for many families, particularly first-time home buyers.

The 1990 Census provides information regarding the numbers of Glenn County residents overpaying (paying more than 25 percent of their income for housing). Tables 4-1 and 4-2 below present the number of households by tenure (owner and renter) who are overpaying. Lower-income households are defined as those at or below 80 percent of median income. The median household income for the Glenn County unincorporated area in 1990 was \$24,683; 80 percent of median income would be \$19,746. Therefore, the first two categories in the tables (less than \$10,000 and \$10,000 - \$19,999) represent the lower-income households and the three categories showing lower-income households paying 25 percent or more of their income for housing represent those overpaying. A total of 231 lower-income owner households in the Glenn County unincorporated area, or 17.3 percent of all owner households, are therefore determined to be overpaying. If 30 percent of income is used as the measure of overpayment, the figures are 192 and 14.3 percent, respectively (Table 4-1).

For renter households, 392 lower-income households (42.5 percent) are paying over 25 percent of household income for housing, while 359 households (38.9 percent) are paying over 30 percent for housing (Table 4-2). Not surprisingly, the number and percentage of renter households overpaying is significantly greater than the number and percentage of owner households overpaying.

The 1991 study prepared by the Community Housing Improvement Program (CHIP), *The Need for Migrant Housing in Northern Glenn and Southern Tehama Counties*, reported that 92 percent of migrant farmworkers are paying 37 percent or more of their income on housing needs as compared to the overall county average.

- **Overcrowding:** Table 4-34 of the Environmental Setting Technical Paper shows that 10.7 percent of the total housing units within the Glenn County unincorporated area were overcrowded in 1990. The U.S. Census bureau defines overcrowded housing units as those in excess of 1.00 persons per room average. Of the total households, 8.5 percent of owner and 15.3 percent of renter units were overcrowded in 1990.

Overcrowding is often reflective of one of three conditions: a family or household living in too small a dwelling; a family housing extended family members (i.e. grandparents or grown children and their families living with parents); or a family renting inadequate living space to non-family members (i.e. families renting to migrant farm workers). Whatever the cause of overcrowding, there appears to be a direct link to housing affordability. Either homeowners/renters with large families are unable to afford larger dwellings, older children wishing to leave home cannot do so because they cannot qualify for a home loan or are unable to make rental payments, grandparents on fixed incomes are unable to afford suitable housing or have physical handicaps that require them to live with their children, families with low incomes may permit overcrowding to occur in order to derive additional income, or there is an insufficient supply of housing units in the community to accommodate the demand.

The existing housing stock in Glenn County consists predominantly of low- and moderate-income housing. According to the 1989 Glenn County Housing Element:

The largest housing developments in the County in the 1980's have been entirely for low-income families. These developments include the Holly Subdivision in Hamilton City (29 units of self-help housing), 14 units of self-help housing constructed on scattered lots in Hamilton City, Ledgerwood Estates Subdivision in Orland (67 lots for self-help housing) and the Pine Ridge Apartments in Willows (180 apartments).

Special Needs

State law requires that the special needs of certain disadvantaged groups be addressed. The needs of the elderly, handicapped, large families, and female heads of household are described below; the needs of farm workers and migrant workers are described in Section 4.3 below.

- **Elderly Persons:** The special housing needs of the elderly are an important concern since they are likely to be on fixed incomes or have low incomes. Besides this major concern, the elderly maintain special needs related to housing construction and location. The elderly often require ramps, handrails, lower cupboards and counters, etc., to allow greater access and mobility. They may also need special security devices for their homes to allow greater self-protection. The elderly have special locational needs, including access to medical and shopping services and public transit. In some instances the elderly prefer to stay in their own dwellings rather than relocate to a retirement community, and may need assistance to make home repairs.

Table 4-35 of the Environmental Setting Technical Paper indicates that 1,583 residents, or 12.6 percent, of the unincorporated area population was age 65 or over in 1980, as compared with 1,849 residents, or 13.4 percent, in 1990, consistent with a national and statewide trend toward a growing elderly population.

- **Disabled Persons:** There are many types of disabilities and definitions are not simple. Local governments utilize the definition of "handicapped" person as contained in Section 22511.5 of the California Administrative Code for vehicle and building code enforcement.

Disabled persons often require specially designed dwellings to permit free access not only within the dwelling, but to and from the site. Special modifications to permit free access are very important. Title 24 of the California Administrative Code mandates that public buildings, including motels and hotels, require that structural standards permit wheelchair access. Rampways, larger door widths, restroom modifications, etc., enable free access to the handicapped. Such standards are not mandatory for new single family or multi-family residential construction.

Like the elderly, the disabled also have special locational needs. Many desire to be located near public facilities and transportation facilities that provide services to the disabled. It should be noted that many government programs that group seniors and disabled persons (such as HUD Section 202 housing) are inadequate and often do not serve the needs of the disabled.

Table 4-36 of the Environmental Setting Technical Paper indicates the number of persons in 1980 and 1990 who had disabilities that either restricted them from working or from using public transportation. It should be noted that the listing of those persons with transportation disabilities includes a large number of persons 65 years of age and older. The table indicates that 5.1 percent of Glenn County unincorporated areahouseholds contained members unable to work because of a disability, and 2.5 percent had transportation disabilities. These statistics give only a general idea of the problem and are not conclusive.

- **Large Family Households:** Large families are indicative not only of those households that require larger dwellings to meet their housing needs, but also are reflective of a large number that live below the poverty level. Table 4-37 of the Environmental Setting Technical Paper indicates the number and percentages of those households that had five or more members and those that had six or more members in 1980 and 1990. In the Glenn County unincorporated area, 16.0 percent of owner households had 5 or more persons, as compared to 17.8 percent of renter households.
- **Female Heads of Household:** Families with female heads of household experience a high incidence of poverty. The Glenn County unincorporated area had 267 female headed households with one or more child in 1990, compared to 241 in 1980. Table 4-38 of the Environmental Setting Technical Paper lists the numbers and percentages for 1980 and 1990. A high poverty level often results in poorly maintained dwellings since income is more likely to be spent on more immediate needs such as food, clothing, transportation, and medical care.
- **Homeless:** Housing programs for the homeless are generally targeted for two client groups as follows:
 - Local residents in need of emergency and/or long-term shelter and
 - Transients

Transients requiring housing generally only require short-term or emergency shelter.

An inventory of homeless persons in the unincorporated portions of Glenn County was conducted by the Glenn County Sheriff's Department during the first two weeks of September 1991. The Sheriff's Department conducted this survey between the hours of 2 a.m. and 6 a.m. every day. The survey identified two male persons camping within automobiles. These individuals, however, appeared to be transient since they did not remain at the identified site for more than one night.

A probable reason for the low homeless count is that the unincorporated area of Glenn County is rural with few services and facilities. It appears that homeless persons entering Glenn County stay within the incorporated cities of Willows and Orland.

The housing needs of the homeless have become an ever increasing problem. The County of Glenn administers programs to meet the needs of the homeless. The Social Services,

Community Services and Mental Health Departments administer these programs. All of these programs have certain criteria that the applicant must meet to qualify for assistance.

Glenn County Community Services Department: The Glenn County Community Services Department, the County's community action agency, receives funding from the Emergency Shelter Program (ESP) and from the Federal Emergency Management Agency (FEMA). These two programs are the Emergency Motel Vouchers Program (funding from both ESP and FEMA) and the First Month's Rent Payment Program (FEMA funds).

The Emergency Motel Vouchers Program provides housing for qualifying homeless clients in local motels for a defined period of time to allow them sufficient time to find permanent housing. The First Month's Rent Payment Program will pay up to \$300.00 for one month rent for a homeless family to move into permanent housing.

The applicant must meet certain income criteria to qualify for Emergency Shelter. Once the income criteria has been met, a voucher for a motel is issued. If funds are available, families are housed in a room with a kitchenette. These funds are generally available for two to three weeks. The assistance is dependent on the efforts of the people to help themselves. For example, assistance can be extended until a paycheck is received from a new job to meet the housing payment.

The only motels used for this program are located within the city limits of the two incorporated cities of Orland and Willows. The homeless are not sheltered in the unincorporated area of the county. There are no public facilities available for housing the homeless such as the National Guard Armory.

From August 1990 to August 1991, the Emergency Motel Voucher programs housed 214 people county-wide for 1,605 nights. From January 1, 1991 to August 1, 1991, the First Month's Rent Payment program assisted 41 people county-wide for a total of 1,103 sheltered nights. These programs help people from both the cities of Willows and Orland as well as people from the unincorporated area of Glenn County.

The Community Services Department reports that there is an increasing demand for these funds. They are often pressured to allocate these funds before the funds are received. The gap in service is being filled by a Memorandum of Understanding with Catalyst-Women's Advocates, Inc. and Community Action Agency of Butte County.

The Catalyst-Women's Advocates Program in Chico is directed to help battered wives and their children. This program provides shelter as well as services to battered wives and their children. The Community Action Agency of Butte County will accept referrals from Glenn County for their transitional shelter located at 2505 The Esplanade in Chico. This transitional facility will allow families to be sheltered up to six months while waiting for permanent shelter.

Glenn County Social Services Department: The Glenn County Social Services Department administers a State funded homeless program. The applicant is eligible for a maximum sixteen

days housing every 24 month period. Usually, these people will have eviction notices. The Social Services Department has a computer tie-in with other State agencies to prevent people from garnering excess benefits by moving from one area to another. For the month of July 1991, Glenn County had three transfer cases.

The total number of cases for July 1991 was 32. All of these cases were also receiving Aid to Families with Dependent Children (AFDC). The 32 cases benefitted 30 adults and 48 minors. For the previous fiscal year, July 1990 through June 1991, this program made provisions for 2,313 nights for approximately fifty people per month.

Effective on August 1, 1991, the State changed the benefits for this program. Previously, qualifying applicants were eligible for a maximum of four weeks housing every twelve month period. Now the applicant is entitled to sixteen days housing every 24 months; this assistance granted for three days, then for seven days, then for six days. The applicant is usually housed in a motel. Assistance is provided by a check made out to the motel.

Glenn County Mental Health Department: The Glenn County Mental Health Department's program is very limited since qualification for funding under this program is based upon the applicant's having a diagnosed mental illness. Cases of stress, for example, do not qualify. These people are generally housed in board and care homes. There are two board and care homes in the City of Willows and one for senior citizens in the City of Orland. Most of these people are housed out of the county. Motels may be used occasionally. Food can be provided by a restaurant or grocery store. Clothing may be obtained from the Discovery Shop which is a used clothing store located in Willows.

For Fiscal Year 1989-90, 30 clients were served: 28 single people, 2 married people, 28 males, 2 females. Two were under the age of 21 years and 28 were between 21 and 64 years of age. Approximately \$7,900.00 was spent for the year.

This program will assist people until they are covered by Social Security or welfare. The process for Social Security takes time, but the applicant is paid retroactively; in these cases, the agency gets paid back from these retroactive funds. This program is funded by Federal McKinney funds consisting of a \$2528.00 allocation; the remainder is from Short-Doyle State Mental Health funds.

General Plan and Zoning Analysis for the Provision of Housing for the Homeless

The County's General Plan allows for the location of special housing for persons and families in need of emergency shelter. The "Residential" designation states the following:

- The goal of Glenn County is to promote a diversity of Residential Densities which are consistent with the social economic, transportation and environmental goal of the County.

The County's Land Use Element designates 2076 acres of land allowing densities of one unit per acre or more.

The "RM" (Multiple family) Zoning District of the Glenn County Zoning Code allows single family and multiple family dwellings. Boarding and rooming houses require a conditional use permit. A shelter for the homeless would require a conditional use permit in that zone. Requirements for a homeless shelter are not more restrictive than any other use requiring a conditional use permit. The process normally takes approximately two to three months with a conditional use permit processing fee of \$685.00.

The "RM" (Multiple family) Zoning District provides for the development of apartments as a permitted use. Apartment units used as temporary shelter is permitted in Glenn County's "RM" Zoning District.

Temporary housing utilizing a hotel or a motel for the homeless is also permitted in the "C" (Commercial) Zone, the "C-M" (Commercial/Industrial Reserve) Zone, and the "HVC" (Highway and Visitor Commercial District) without a conditional use permit. The "CC" (Community Commercial Zoning District) permits a hotel or a motel with a conditional use permit.

Information presented in Sections 4.1 and 4.4 of the Environmental Setting Technical Paper documented recent growth which has occurred in the population and housing stock of the Glenn County unincorporated area. Between 1980 and 1990, the population has increased by 7.7 percent, while the total number of housing units has grown by 10.7 percent. Long-range projections indicated that the total population of Glenn County will expand from 25,000 in 1990 to 27,780 in 1997. The total number of households in the unincorporated area generated by this growth is predicted to expand from 4,770 in 1990 to approximately 5,300 in 1997.

The Tri-County Planning Council is required to determine housing market areas for the Tri-County Planning Area (consisting of Colusa County, Tehama County and Glenn County) and define the regional housing need for persons at all income levels within each city and the unincorporated area within the counties. The distribution of regional housing needs takes into consideration market demand for housing, employment opportunities, availability of suitable sites and public facilities, commuting patterns, type and tenure of housing need, the loss of units contained in assisted housing developments, and the housing needs of farm workers. The law stipulates that the distribution shall seek to avoid further impact of localities with relatively high proportions of lower income households. This distribution will be used to determine the number of new housing units, or basic construction need, for Glenn County.

This Regional Housing Needs Plan projects household need for Glenn County between 1992 and 1997, based upon current conditions. It also gives a basic construction need unit figure between 1992 and 1997, by income level (very low income, other lower income, moderate income, and above moderate income), as well as the annualized new construction need. It is convenient to analyze the need for housing assistance in this manner because the increase in need can be annualized, providing a numerical goal for yearly housing assistance programs, the attainment of which will result in no increase in need. Programs can be structured to address the annual increase in need, and to minimize the existing need. This format will enable the performance of

housing programs to be readily monitored and progress toward meeting both components of need quantified in future revisions of the housing element.

4.1.2 Low Income Housing at Risk of Conversion

State law requires that housing elements address subsidized housing units at risk of conversion to market rate units. Three developments in Glenn County have been identified which are at risk of conversion; however, one is in the City of Orland and two are in the City of Willows, and will be addressed in the cities' respective housing elements.

There are several low-income housing programs in Glenn County. These programs consist of rehabilitation loans in targeted areas with a condition that the dwelling shall remain for low-income housing for the period of time required by the revenue source; i.e. Community Development Block Grant (CDBG) is for five years. There has been no new construction of low-income housing in the unincorporated portion of Glenn County using federal funds with the exception of single family detached self-help housing in Hamilton City using CDBG funds. These dwellings are to remain low-income units as long as CDBG funds are involved.

None of these housing areas is in danger of being converted to a nonresidential use at this time. Also because of the regulations of the programs, most are not in danger of being converted to other than low-income housing at this time.

The following is an inventory of assisted housing programs in the unincorporated portion of Glenn County:

1. U.S. Department of Housing and Urban Development (HUD) programs:
 - a) Section 8, Lower-income Rental Assistance project based programs. Please see Community Development Block Grant below. There are no Section 8 units in the unincorporated area of Glenn County.
 - b) Section 101, Rent Supplements. The County has not participated in Section 101.
 - c) Section 213, Cooperative Housing Insurance. The County has not participated in Section 213.
 - d) Section 221 (d) Below-market interest rate mortgage insurance program. The County has not participated in Section 221.
 - e) Section 236 Interest Reduction Payment Program. The County has not participated in Section 236.
 - f) Section 202, Direct Loans for Elderly or Handicapped. The County has not participated in Section 202.

g) Community Development Block Grant Programs.

With the exception of the Community Development Block Grant Program (CDBG), Glenn County has not participated in federal housing assistance programs for low-income rental assistance. In 1986, CDBG monies were used in Hamilton City to construct 34 low-income single family units (self-help housing). These units were built by low-income residents meeting CDBG criteria. These units are to remain low-income during the 15 year loan pay back period.

Community Development Block Grant funds have recently been used to upgrade single family homes in the North East Willows area, and applicants must have low income. This project was to allow owners to rehabilitate their homes to Section 8 Housing Quality Standards.

Low income is defined as an annual income of \$13,600.00 for a single person and goes up to \$24,300.00 for a household of 8 persons.

The owner who rehabilitates rental property must consent to rent to the lower income population for a period of five years since this is a CBDG regulation. There were nineteen owners who participated in this program. Of the nineteen, three owners rehabilitated their rental properties.

CDBG reuse funds have been made available to continue CDBG eligible activities such as low income single family detached home repairs/rehabilitation. The Community Housing Improvement Program (CHIP) project funded single family detached self-help homes in the Hamilton City area for low-income persons (through loans and grants) in the unincorporated North East Willows area. Owners who rent properties must agree to rent to a low-income person for a period of at least five years.

1. FmHA Section 515 Rural Rental Housing Loans. The County has not participated in FmHA Section 515 loans.
2. State and local multi-family revenue bond programs. There have been no bonds issued in the unincorporated area of Glenn County for low income housing.
3. Redevelopment programs. The County has not participated in a Redevelopment program.
4. Local in-lieu fee programs. The County has no local in-lieu fee program.
5. Developments which obtained a density bonus: Glenn County has provisions for increasing the density of housing for low-income through its "planned development process".

The only State program in which the County participates is a California Energy Commission Grant. The Glenn County Community Services Department has recently been awarded the California Energy Conservation Rehabilitation Program for Glenn, Colusa and Trinity Counties. This program would allow thirty single family units for all three counties to be rehabilitated, of

which fifteen dwellings must be rental units. Under this program, the owners must also rent to the low income person or family for a five-year period.

4.1.3 Ability of the County to Assist in Housing Element Program Requirements

According to a publication of the State Department of Housing and Community Development (HCD) entitled Housing Element Questions and Answers, local governments are not expected to solve their housing problems alone. However, having identified the housing needs of low- and moderate-income households, the State expects local agencies to employ strategies which can assist in meeting those needs:

Localities can offer direct support for the development of affordable housing through bonding and redevelopment powers. Assistance can also be provided through the utilization of appropriate federal and State financing and subsidy programs, such as HUD Section 8, Section 202, State Rental Housing Construction Program and Community Development Block Grants. Localities can also establish an equity sharing program to provide affordable homeownership or rental housing opportunities for low- or moderate-income households, or establish a local housing authority or nonprofit development corporation to develop or operate low- and moderate-income housing. Local governments can also indirectly facilitate the development of more affordable housing.

Examples given of programs that have been successfully implemented by California cities and counties in order to comply with State law and address their housing needs include density bonus programs; provision of one or more regulatory concessions or incentives to developers of projects with 20 percent of units reserved for lower income households; designation of housing opportunity sites (also known as inclusionary zoning); requiring developers of commercial and industrial projects to contribute to the development of affordable housing for employees; use of land write-downs or sale of surplus lands for affordable housing; development agreements for developers to provide public facilities in exchange for certain development rights such as land use changes and density increases; and fast-track processing for low- and moderate-income housing projects.

While these examples may not represent direct costs to the local government, the cost in terms of staff time and resources is not acknowledged. Especially in a relatively small county such as Glenn, the administration of relatively complex State and federal housing programs would require a fairly significant staffing commitment from a department or departments which already operates with limited staff. Another concern is the cost of programs which require developer participation. In an area with comparatively low property values, the type and scale of proposed developments most often will not support the types of exactions that are more common in metropolitan areas.

This is not to say that the County is incapable of facilitating or assisting in the provision of affordable housing, simply that proposed programs must be realistic in light of County resources. The HCD publication states that "Many localities have found that working with local nonprofit

housing groups makes assisting in the development of affordable housing much easier and more effective."

Glenn County has worked cooperatively over the years with the Community Housing Improvement Program (CHIP), a nonprofit housing corporation, to accomplish a number of housing objectives. CHIP has worked with families to construct virtually all of the self-help housing in Glenn County, most of which is located in Hamilton City. CHIP has also constructed multiple family dwellings and assisted in the administration of Community Development Block Grants (CDBG) for housing rehabilitation.

Although there is no local housing authority, the Glenn County Community Services Department operates a weatherization program for low-income households and administers the HUD Section 8 rent subsidy program and a Rent Eviction Prevention Program. A continuation and enhancement of these existing relationships and programs appear to offer the greatest opportunity for housing assistance at the local level.

4.2 Housing Rehabilitation and Preservation

In 1991, QUAD Consultants completed a windshield housing condition survey of the unincorporated communities of Artois, Bayliss, Blue Gum area, Butte City, Capay area, Codora Four Corners, Elk Creek, Glenn, Hamilton City, North East Willows, North Willows, Ord Bend and West Orland. For the communities of Artois, Butte City, Elk Creek, Hamilton City, and North East Willows, this survey updated information from a 1987 survey completed by the Colusa-Glenn-Trinity Community Action Agency. The results of the 1991 survey are presented in Table 4-33 of the Environmental Setting Technical Paper. The rating system used in the 1991 survey was based on the system prescribed by the State Department of Housing and Community Development. Since there is no survey data prior to 1987, it is not possible to compare housing conditions over time.

The results of the survey show that the communities of Bayliss, Blue Gum area, Capay area, Codora Four Corners, North Willows and West Orland have the highest percentages of sound housing (all over 70 percent), and the communities of Artois, North East Willows, Elk Creek and Butte City have the highest percentages of dilapidated housing (all over 7 percent). Although the data is not available for Glenn County there is normally a high correlation between age of the housing stock and housing condition. Because available State and federal programs do not provide adequate funding to address all housing rehabilitation needs, it is essential that the County target its efforts to obtain funding to communities with the greatest needs.

While age certainly is contributory to housing quality problems, another factor which partially explains housing condition is overcrowding. This factor, which often correlates with substandard conditions, is a problem in many of the sparsely populated agricultural areas of the county. Lack of appropriate size housing units, low incomes, large families, and other conditions encourage severe overcrowding, especially during the harvest season when migrant farmworkers expand the local labor force and compete for housing accommodations.

4.3 Farmworker and Migrant Worker Housing Needs

The State of California Employment Development Department (EDD) reported that in 1988, 1,375 persons were directly employed in agriculture in Glenn County; in 1993, the figure is forecast to remain the same. The figures include farmers and unpaid family members and do not include a breakdown of the permanent and seasonal workforce. The State of California defines seasonal employees as those who are employed fewer than 150 consecutive days by the same employer. Seasonal workers may be migratory or they may be persons or family members who are temporarily employed but permanently located in Glenn County. The State defines a local worker as a seasonal laborer who resides close enough to the job site to return home each night.

Farmworker and migrant worker housing needs are one of the more important housing issues in Glenn County because of the county's agriculture-based economy. According to the County's existing Housing Element, there is no housing allocated specifically for seasonal farm workers, leading to temporary conditions of overcrowding in conventional housing on the valley floor which is rented to seasonal workers. Housing shortages may exist during peak seasonal labor periods when a large influx of migrant workers occurs, such as during the olive harvest. During these periods, every form of temporary, substandard and standard shelter may be occupied.

The Department of Housing and Community Development contracted with the Community Housing Improvement Program (CHIP) in 1991 to conduct an assessment of migrant housing needs in northern Glenn and southern Tehama counties. Two surveys were conducted to collect data for the study: in-field interviews with migrant laborers and a grower survey, both conducted during the 1991 fall harvest season. Results of the surveys are reported for both counties, and are not provided for Glenn County alone (Community Housing Improvement Program, The Need for Migrant Housing in Northern Glenn and Southern Tehama Counties, 1991).

The purpose of the migrant worker survey was to:

- determine the adequacy, availability and cost of housing in which farmworkers reside in Glenn and Tehama counties
- determine the agricultural employment patterns of farmworkers (migrant, local, seasonal and permanent)
- gather demographic information on the farm labor population (age, sex, marital status, income, etc.)
- provide data for purposes of securing public funding for migrant worker housing

The goals of the grower survey were to:

- determine the characteristics of the employed migrant worker (including duration of employment, place of residence, and salary levels)

- determine the number of crops and acreage
- determine anticipated changes in the counties' work force and crop production over the next five years
- determine the types and amounts of grower-provided housing and growers' experiences in its provision
- determine grower interest in the construction of additional migrant worker housing

The grower survey concluded that, of workers employed at the time the survey was taken (Fall 1991 harvest season), 12 percent were permanent (long-term), 40 percent were seasonal workers, and 48 percent were migrant workers (migrant workers are defined as those that travel more than 50 miles one way from their home base and establish one or more temporary residences). The study notes that these percentages differ from Employment Development Department (EDD) statewide employment data. Compared to EDD data, Glenn and Tehama counties have twice as many migrants employed by local growers as statewide estimates. Projections based on all 1600 Glenn and Tehama County growers employing farmworkers show that a total of 3,128 permanent, 10,712 seasonal, and 12,712 migrant workers are employed.

The statistics for provision of housing by growers in Glenn and Tehama counties indicate that one third of the growers provide housing. Of that third, only 3 percent provide housing for seasonal workers and 2 percent provide housing for migrant workers. Glenn County has no registered labor camps. The study estimates that, based on an estimated range of 1,589 to 12,712 migrants employed in both counties during peak harvest season, between 1,340 and 12,463 beds are needed for migrant housing.

4.4 Governmental Constraints

Governmental constraints on housing are potential and actual policies, standards, requirements, or actions imposed by the various levels of government or development which constrain the maintenance, improvement and development of housing. Although federal and State programs and agencies play a role in the imposition of governmental constraints and increases in housing costs, they are generally beyond the influence of local government and cannot be effectively addressed in this document.

An analysis of potential local governmental constraints in Glenn County is presented below. HCD has indicated that, for each policy or procedure identified as a constraint, the housing element should include a program to eliminate or modify the constraint or demonstrate how it will be offset by another policy or program. When a city or county determines that it is inappropriate or not legally possible to remove a potential constraint (e.g. for public health and safety reasons), the analysis used to reach that conclusion should be presented.

4.4.1 Land Use Controls

Land use controls are basically minimum standards included within the County's zoning and land division ordinances. Zoning regulations control such features as height and bulk of buildings, lot area, yard setbacks, population density, building use, etc. If zoning standards are too rigid and do not allow sufficient flexibility, housing development costs could increase, and interest in development may decrease. The Land Division Ordinance governs the process of converting raw land into building sites. It allows the County to control the internal design of each new subdivision so that its pattern of streets, lots, public utilities, and any amenities will be safe, pleasant and economical to maintain. As with zoning, overly restrictive standards may result in higher land development costs and/or lack of interest in development.

Glenn County offers many housing incentives in its Zoning Code and Land Division Ordinance, including the following:

- The Zoning Code allows Planned Unit Developments. The maximum density of a planned unit development may exceed the permitted density allowed for the underlying zones in the AE and RE zones up to twice the permitted density; and may exceed up to 1.25 times the permitted underlying density in the R-1 and R-M zones.
- The Zoning Code allows a second residential dwelling unit on all residential and agricultural parcels upon the issuance of an administrative permit. The second unit may be an attached unit, a detached unit or a mobile home. It may be rented or occupied by a family member or employee. This ordinance provision has allowed many second units which were previously illegal in the R-1 zone to be brought up to code.
- The Zoning Code allows mobile homes in all zones provided they meet certain standards. Planned mobilehome parks are allowed, with a conditional use permit, in the commercial and industrial zones as well as in residential zones.
- The Zoning Code allows agricultural labor camps in the AP and AE zones, upon the issuance of a conditional use permit.
- The environmental impact report (EIR) prepared for the General Plan will be used as a base document for the preparation of environmental findings for private development proposals.

As described in Sections 5.1.7 and 5.1.8, the County does not currently require dedication of open space or payment of in-lieu fees as a condition of the subdivision approval process. With regard to parking, the County does not require garages to be provided for residential. Setbacks and yard requirements are fairly typical; however, less restrictive standards are available in the Planned Development Residential zone.

While counties are not required to have a zoning ordinance or subdivision ordinance, they are required to adopt a general plan and to implement that general plan. Zoning is one of the most common tools for implementing a general plan. The County is required to comply with the State

Subdivision Map Act, certain provisions of which are required to be implemented by local ordinance. The county has determined that while not illegal, the lack of a zoning or subdivision ordinance would endanger the public health, safety and welfare, and that, as constituted, they do not pose a constraint to the development of housing for all income groups.

4.4.2 Building Codes

Building codes regulate the physical construction of dwellings and include plumbing, electrical and mechanical divisions. The County adopts and follows the Uniform Building Code as established by State law. The County operates a one-stop building permit processing procedure. Refer to Sections 4.4.4 and 4.4.5 below; the County has determined that it is not legally possible or safe to repeal building codes, and that application and enforcement of building codes do not pose a constraint to the development of housing for all income groups.

4.4.3 Site Improvements

Site improvements are regulated by the County Land Division Ordinance, and through conditions and standards imposed through the Zoning Code, including the conditional use permit process. On- and off-site improvements include required off-street parking, roads, sidewalks, landscaping, walls, and policies regarding connection to existing sewer, water and storm drainage systems. The County's improvement standards are typical of rural counties and are not unusual or excessive in nature. Many rural roads in Glenn County are unpaved. Standards are reduced for rural and agricultural developments, as compared to urban developments. Off-site improvement requirements are quite limited, involving only connection to a dedicated and improved street and improvement of abutting roads to County standards. The County does not require any improvements other than those deemed necessary to maintain the public health, safety and welfare, and it has been determined that the improvement requirements do not pose a constraint to the development of housing for all income groups. Refer to Section 5.0 of this Issue Paper for a comprehensive discussion of public facilities and services.

4.4.4 Fees

Although development processing fees do contribute to the total cost of development, and therefore housing, the fees charged by Glenn County are very modest in comparison to fees charged by other counties and cities in the region. The current fee schedule is included in Appendix A of this Paper. However, the County is not the only public agency which imposes fees on new development. Impact fees are also charged by school districts, the State (for review of environmental documents by the Department of Fish and Game), and special districts for hookup fees. In addition to hookup fees, fees are normally charged for future water system expansion and sewer treatment plant expansion based on each development's share of projected costs.

By law, fees cannot exceed the cost of providing the particular facility or service for which they are charged. As stated above, application fees for development projects are very modest in Glenn County. Building permit fees are as established by the 1986 edition of the Uniform Building Code, and charges are lower than most cities and counties. It is not economically feasible for the County to reduce fees and continue to provide necessary and mandated services.

Planning and building fees are therefore determined not to pose a constraint to the development of housing for all income groups.

4.4.5 Development Processing

The Glenn County Planning Department has published Development Processing Guidelines to assist property owners and developers with the development process. This publication describes the development review process, including the local government structure, development standards and regulations, environmental determinations, and applications for general plan amendments, zone changes, administrative permits, conditional use permits, variances, reclamation plans, Williamson Act, parcel maps, lot line adjustments, certificates of compliance, annexations, and the appeals process. For each type of application, the Guidelines provide a step-by-step description of the process.

Applications are processed in an expeditious manner within State-established time limits. Items are advertised for hearing at the Planning Commission even before they are considered by the Technical Advisory Committee, so that the hearing can be held as quickly as possible. As an example, tentative parcel maps and conditional use permits can be approved in as little as two months if the required information is supplied at the time of application. Administrative permits for second dwelling units are normally processed within two days. The Building Department usually completes plan checking within one week, a significantly shorter period than most other county building departments in California. Most residential projects do not require environmental impact reports, the most time-consuming process. Development processing is therefore determined not to pose a constraint to the development of housing for all income groups.

4.5 Nongovernmental Constraints

Non-governmental constraints are those generated by the private sector which are beyond the control of local government, as well as physical/environmental constraints. With respect to Glenn County, these include availability and cost of financing, price of land, construction costs, and consumer preference.

4.5.1 Availability and Cost of Financing

Interest rates for both construction and take-out financing probably have more impact on housing than any other factor, at least in the short term. When interest rates are high, or financing is not generally available, an increasing number of households cannot afford home ownership even if housing prices are affordable. A 1992 analysis of the components of monthly housing cost for a single family dwelling costing \$100,000, purchased with a 10 percent down payment and financed at 8.5 percent for 30 years, indicates that a \$10,000 reduction in land and development costs results in a 10 percent reduction in monthly payment, while a 4 percent increase in take-out financing interest rates results in a 38 percent increase in the monthly payment.

The November 20, 1991 edition of the Willows Journal listed 54 existing single-family homes for sale ranging in price from \$35,000 to \$260,000. The average price was \$111,340, with 8 homes below \$50,000 and 16 homes over \$100,000. Thirty homes fell between \$50,000 and

\$100,000, comprising 55 percent of the homes listed for sale. A number of these homes were located either on farmland or on a ranch. One listing advertised a 40-acre farm with a three bedroom/one bath home, two barns and storage buildings for \$260,000. Rent for homes and apartments ranged from \$250 to \$900 per month. The average rent for an apartment was \$316 per month, and \$559 per month for a house.

As this Issue Paper is written, interest rates for fixed-rate mortgages are the lowest they have been in two decades. To mitigate the impact of high interest rates, when they occur, one of the few options available to local government is to find a means of subsidizing those rates for the home buyer and/or developer. This has been accomplished in the past primarily by the sale of mortgage revenue bonds, often coordinated at the county level. This process has been complicated by changes in federal law and State caps on the amount of bonds that can be issued statewide. State and federal mortgage subsidy programs are available at various times to qualifying projects and developers. While mortgage interest rates are currently at their lowest point in twenty years, as stated above, the availability of construction and development financing is very tight, primarily in response to savings and loan institution failures and foreclosed development projects on the national level.

4.5.2 Price of Land

According to the California Building Industry Association, the cost of land represents an ever-increasing proportion of the total housing development cost. In 1980, land cost represented approximately 30 percent of the cost of a new home in California, but by the end of the decade that component accounted for nearly 35 percent of the costs. In Glenn County, land costs are still reasonable compared to other, similar areas in California.

Vacant lots for single family homes ranged from \$20,000 to \$30,000 for one acre lots to \$71,000 for 19 acres. The average cost of a multiple family lot is difficult to estimate due to the small number and unique characteristics of such lots (most are located within the two incorporated cities in Glenn County).

Measures available to local government to address land costs include the use of redevelopment funds to write down land costs, and development of housing by a nonprofit corporation such as a Housing Authority. Use of surplus government-owned land for housing is an option not often available to a small county, due to a general lack of suitable publicly-owned land. However, this option should be kept in mind when such an opportunity occurs. Finally, attempting to stabilize or reduce land prices through increasing the supply of available land can only be effective if a full range of public services and facilities are available at a reasonable cost.

4.5.3 Cost of Construction

Rising costs of labor and materials have contributed to nongovernmental constraints on housing development and improvement. These costs, plus energy costs, formed a substantial part of housing cost increases during the 1970s, increasing by 10 percent during that decade. Labor and materials costs continued to increase during the 1980s. The cost of wood is expected to continue to increase due to significant projected cutbacks in timber harvesting in the United States for

environmental reasons. Labor costs for publicly constructed housing are higher than for privately-constructed housing due to the requirement to pay prevailing wage rates, which in an area such as Glenn County are significantly higher than local wage rates.

Because land costs in Glenn County are relatively low, construction costs represent a higher percentage of the cost of new housing. Fees are addressed in Section 4.4.4 and included in Appendix A, and financing is addressed in Section 4.5.1. Labor costs are also relatively low. Materials and labor represent approximately 70 to 75 percent of the total new housing cost. A majority of the new dwellings erected in the unincorporated area are mobilehomes, at less than half the construction cost of a new conventional dwelling.

Local governments can use Community Development Block Grant (CDBG) funds and redevelopment funds to finance infrastructure improvements (e.g. water and sewer lines), which assist in lowering housing costs. Glenn County has participated in this program, as described elsewhere in this document.

4.5.4 Consumer Preference

Part of the increase in housing costs in the 1980s has been due to consumer preference and lifestyle expectations regarding dwelling unit size and amenities. All of these lifestyle choices have costs associated with them. As housing costs and/or interest rates make detached single family dwellings less affordable, alternatives such as smaller lots, smaller units, and attached housing become more acceptable, but are still not the housing of choice for the majority of households. Local government can assist in making a variety of housing types available through permitting higher densities, zero-lot-line housing and smaller lots; only, however, if infrastructure permits.

4.6 Equal Housing Opportunity

Although essential to meeting housing needs, the provision of a sufficient number of dwelling units will not in itself ensure that the entire population will be adequately housed. A large segment of the population lives on very low incomes, and as housing costs increase, they are forced to apply an excessive amount of their budget to housing costs. In order to remain in the housing unit of their choice, some residents pay such a large portion of their income on housing that they are unable to purchase other basic necessities. In the case of a large family, lack of sufficient income usually restricts housing choice to a dwelling which is inadequate for their needs in size and quality. For many other households with sufficient income to purchase quality housing, choice of housing location is sometimes not available because appropriate housing at acceptable cost is not equally dispersed geographically throughout the county or within individual communities.

Although inadequate geographic distribution of affordable housing within a community or region is an important constraint, discrimination due to race, religion, or ethnic background is an equally significant factor affecting equal housing opportunity. Actions which result in illegal discrimination in the rental or sale of housing violate State and federal laws and should be reported to the proper authorities for investigation. The State agency responsible for

investigation of housing discrimination complaints is the State Department of Fair Employment and Housing.

4.7 Residential Land Resources

In order to properly plan for future housing needs, undeveloped lands available for housing within existing communities and projected growth areas must be inventoried. Figures 4-2 through 4-14 of the Environmental Setting Technical Paper show existing vacant parcels within the communities of Artois, Bayliss, Blue Gum, Butte City, Capay area, Codora Four Corners, Elk Creek, Glenn, Hamilton City, Ord Bend, North East Willows, North Willows and West Orland. Table 4-3 below presents the total acres of vacant land potentially suitable for residential development for each community and East Orland as well.

Development of vacant bypassed lands within these communities can be encouraged by the County through general plan policies in order to protect agricultural lands on the fringes and provide greater utilization of existing infrastructure. Incentives can be provided to encourage development of bypassed remnant parcels, such as higher densities.

State law requires that zoning be consistent with adopted general plans (except charter cities). Glenn County's undeveloped lands have been zoned in accordance with the present Land Use Element and specific plans, and will be rezoned as necessary to achieve consistency with the updated General Plan. Development potential may be determined based on the maximum allowable density of each zoning district. Table 4-3 includes estimated holding capacity for each community based on existing land use plans and zoning.

It is more difficult to determine the development potential of fringe areas where agricultural zoning is in place, and dwelling unit potential in agricultural areas. However, for planning purposes, future development may be estimated based on average densities.

Table 4-4 indicates the development potential for each residential zone by minimum lot size and density in units per acre. Since the previous Housing Element was adopted in 1989, only one subdivision has been applied for and approved in the unincorporated area. The subdivision created five-acre lots on a site zoned for five-acre lots. While the Glenn County Zoning Code allows lower densities to be developed within zones allowing higher maximum densities, the County's experience has been that projects are developed to the maximum density permitted in the zone, where community sewer and water service are available.

Table 4.7-1

**TABLE 4-4
GLENN COUNTY RESIDENTIAL ZONING DEFINITIONS**

Zoning Category	Minimum Lot Size	Density in Units per Acre
RE -1 Zone	40,000 sq. ft	1
RE-2 Zone	2 acres	.5
RE-5 Zone	5 acres	.2

RE-10 Zone	10 acres	.1
RE-NW Zone	40,000 sq. ft.	1
R-1 Zone1	5,000 sq. ft.	8
R-1 Zone2	20,000 sq ft.	2
R-1 Zone3	40,000 sq. ft.	1
R-M Zone1	5,000 sq. ft.	20

1Served by public sewer and water facilities

2Served by public sewer or water facilities

3Served with septic tank and well

Source:Glenn County Zoning Code

4.8 Housing: Opportunities, Constraints and Conclusions.

- Because Glenn County does not have the resources to meet or assist in meeting all local housing needs, the County needs to determine which housing needs are most critical and focus its efforts on those needs.
- When reviewing State mandates, Glenn County is fortunate that the existing housing stock, including the largest recent developments, is predominantly in the low and moderate income range. It is recommended that the County target its efforts and programs at improving the condition of the housing stock (housing rehabilitation) and facilitating the provision of housing for farm workers, including migrant workers, which will help to alleviate overcrowding. Housing rehabilitation programs should be targeted in the communities of Artois, North East Willows, Elk Creek and Butte City.
- Most of the homeless in the unincorporated area of Glenn County appear to be transients, and the numbers are relatively low. Existing programs and sites to accommodate emergency shelter facilities are adequate to meet existing need. However, State funding to support State-mandated assistance to the homeless is not adequate to cover County costs.
- The County will need to review the regional housing need figures provided by the Tri-County Planning Council and determine the most appropriate way to incorporate them into the Housing Element.
- There are a number of ways in which the County does currently and can in the future assist in meeting the housing needs of its residents which are suited to the housing market conditions and local government constraints of the Glenn County environment. The types of programs which have been successful in the past and hold most promise for the future include Community Development Block Grant programs for infrastructure and housing rehabilitation, continued operation and enhancement of the programs managed by the Community Services Department, and continued cooperation with the housing development efforts of CHIP.
- Several types of housing assistance programs which are employed in more urbanized jurisdictions with higher property values are inappropriate or unworkable in the context of

Glenn County. These include density bonus programs, developer participation programs, inclusionary zoning and write-down of sale of surplus lands.

- The County's existing land use controls, building codes, site improvement standards and fees are necessary for public health, safety and welfare and do not represent undue constraints on housing development in Glenn County. Compared to more urbanized areas, the County's processing procedures and time frames are already greatly streamlined. The County may wish to consider a multiple family zone which allows higher densities for appropriate areas where public sewer and water facilities are available.
- The land use element and housing element are interrelated in the sense that the land use element designates sites and areas for residential development, and the housing element is required to provide for adequate sites for residential development with adequate services for all economic segments of the community. The housing element is concerned with a five-year time frame (1992-97), while the land use element plans for a 20-year time frame (1992-2012). The General Plan revision will take this requirement into account when proposing land use plans for the unincorporated communities, as well as the larger unincorporated area.
- If urban limit lines are established around unincorporated communities, the restrictions on location of new residential development may impact housing costs unless the supply of vacant land is adequate to meet expected needs. However, infrastructure costs should be reduced or stabilized due to availability of existing facilities and the limitation of distances required to extend roads, sewer and water lines.

5.0 PUBLIC SERVICES AND FACILITIES.

Background

The public services and facilities topic covers the necessary hardware and related services which are directly supportive of community growth and development. Included are water systems, sewage collection and disposal systems, gas and electricity, schools, parks and recreational facilities, and public buildings. Police and fire services are covered in the Public Safety Issue Paper.

Domestic water is provided in Willows and Hamilton City by California Water Service. Orland supplies its own domestic water, while the Black Butte Water Company supplies domestic water in West Orland. There are three community services districts which supply domestic water in Glenn County: the Elk Creek Community Services District, Butte City Community Services District and Artois Community Services District. Other domestic water in Glenn County is supplied by individual wells.

There are three wastewater treatment facilities and collection systems serving most of the urbanized portions of Glenn County: Willows, Orland and Hamilton City. All other waste disposal is by individual septic system with the exception of Caltrans' I-5 rest stop, and Glenn

Milk Producers and Holly Sugar's industrial wastewater treatment ponds. Natural gas and electricity are provided by Pacific Gas and Electric Company.

There are ten public school districts in Glenn County, each with its own Board of Trustees. The districts operate ten elementary schools, two intermediate schools, five high schools, and three continuation schools. The districts are: Capay Joint Union, Lake School, Plaza School, Hamilton Union Elementary, Orland Joint Union, Hamilton Union High, Willows Unified, Princeton Joint Unified, Stony Creek Joint Unified, and Orland Joint Union High.

The Glenn County Building and Grounds Department operates nine parks encompassing approximately 100 acres. The cities of Orland and Willows each maintain four parks totalling forty-two acres of park land in Orland and thirty-two acres of park land in Willows. Willows and Orland also operate recreational programs for residents while the County does not. Most County offices are located in Willows, including County administration and the courts, with some departments maintaining offices in Orland as well.

Specific Concerns

5.1 Growth/Development and Service Delivery Capabilities

The ability to grow is closely tied to service delivery capability. By most standards, Glenn County has a relatively low service capacity (primarily a function of size) and is constrained financially from expanding that capacity. To grow without addressing service capacity will soon lead to serious problems and reactions on the part of those who have had their services diluted. It is incumbent upon the County to find ways to pay for growth in services, if the County intends to accommodate or encourage growth. There can be very positive economic spinoffs of growth. There can also be unexpected negative results, if the County does not have a plan in hand to pay for services.

Glenn County could choose to direct development to incorporated cities and to discourage growth in unincorporated areas. Although this position often looks attractive to land use planners, the economic consequences of such a policy is generally negative due to the way in which local government is financed in California.

In most counties, traditional forms of government revenues such as property tax are not sufficient to cover the cost of needed infrastructure. It is mandatory, therefore, that newer and creative ways of meeting up-front costs as well as operations and maintenance be identified. Such need has become particularly acute since voter imposed limitations on local taxes while at the same time the State has continued to ask counties to do more and more. No help can be expected from State and federal government, nor can the developer be expected to cover all of the front-end costs of desirable development. If Glenn County is to attract desirable development and compete with other jurisdictions for economic development, financing plans must be put in place which permit County government to meet public infrastructure and service demands while at the same time making development economically feasible in Glenn County from the private sector perspective.

5.1.1 Infrastructure Financing and Fees.

There are a variety of ways to finance facilities and services that are needed to implement the General Plan. Four principal funding sources are taxes, exactions, fees and assessments. While taxes raise revenue for general purposes, the other sources are used to finance specific improvements or services. Exactions include dedications of land, improvements, or in-lieu payments imposed on new development to fund construction of capital facilities. The type and intensity of exactions imposed are limited by the finding of a burden-created nexus (i.e., connection) between the actual proposed development and General Plan-mandated infrastructure requirements. Types of fees include impact and/or in-lieu fees, which are in the category of exactions, or user fees that can be used to defray the operating costs of providing facilities or services. Special assessments are one of the oldest means of funding construction of infrastructure, facilities, and in some cases, services. Special assessments are charges made by a government against a property owner for that part of the cost of public improvements made adjacent to his/her property that is especially useful or beneficial to that property.

A number of infrastructure financing methods are listed and summarized below. Some may be better suited to Glenn County's needs than others and these will be emphasized in further discussion.

Mello-Roos Districts, also known as community facilities districts (CFDs), Mello-Roos districts can be created to finance a broad range of facilities and services, including those that benefit property in a general way, as opposed to benefiting specifically identified parcels. This versatile method of financing public facilities, infrastructure, and services associated primarily with new development arose from the Mello-Roos Community Facilities Act of 1982. More than one agency may enter into a joint community facilities agreement to allow for the disbursement and utilization of proceeds from one CFD. The types of facilities and services that can be financed through Mello-Roos is limited only by the scope of authority of the particular agency to construct, own or operate such facilities. A Mello-Roos district may finance the purchase, construction, improvement, expansion, or rehabilitation of any real or tangible property with an estimated useful life of five or more years. The following types of facilities and services are authorized (but not limited to) by the Act: parks, recreation, and open-space facilities; school sites and buildings; libraries; child care facilities; utilities facilities; police and fire protection services; ambulance and paramedic services; flood and storm protection systems; hazardous substance cleanups; and many other purposes (Merritt and Robinson 1991:1-4). Mello-Roos financing is particularly suited to large-scale new development where the landowners/developers are cooperative and supportive of forming a district in order to publicly finance the needed infrastructure and services to accommodate their development. Formation of CFDs in developed areas may be more difficult because of the requirement to obtain a two-thirds vote in order to levy the special tax.

Special Assessment Districts can be used to finance improvements when a direct and specific benefit can be established between the improvements and specified parcels of real property. Revenue generated from bonds sold for special assessment districts can be used for construction, installation or maintenance of facilities.

General Obligation Bonds may be used for financing the acquisition or improvement of real property only. The issuance of general obligation bonds requires approval by two-thirds of the voters casting ballots.

Revenue Bonds may be used for financing projects which generate revenues, such as wastewater treatment plants and convention centers. The revenues generated by these projects are used to repay the bonds, and no voter approval is required.

Certificates of Participation generally involve a form of lease transaction, and a source of repayment must be identified. This method does not require a public hearing or election.

Integrated Financing District. A fairly new mechanism, integrated financing districts can be used on their own or in conjunction with other financing tools to construct improvements without imposing a financial burden on the portions of the districts not yet ready to develop. Major infrastructure improvements can be financed when only a portion of the benefitted land is initially able to bear the costs of such improvements by providing for contingent liens to be placed on land to be developed later, so that each property will bear its fair share of the cost of the improvement at the time the development begins. This type of district can be used when a developer is resistant to forming a Mello-Roos district and when the particular development project has significant infrastructure needs that must be constructed before the development can occur, but which will also benefit other developers that are developing their property on slower schedules.

Community Rehabilitation Districts provide financing for the rehabilitation, renovation, repair or restoration of existing public facilities.

Infrastructure Financing Districts use tax increment financing in areas outside of redevelopment areas. The tax increment may be used for payment of Mello-Roos bonds. "Tax increment" is the property tax "increment" above the property tax level for a base year, which increases over time as property is improved and/or sold.

Redevelopment. Adoption of a redevelopment plan, and establishment of a redevelopment project area, also enables the County to use tax increment financing, either on a "pay-as-you-go" basis or to repay tax increment bonds to fund capital improvements within the project area. Because of the requirements under State law, as a practical matter this type of funding is only an option for the unincorporated communities in Glenn County where a potential for redevelopment exists.

Developer Fees differ from the above examples of "pay-as-you-use" financing, where revenue becomes available on a "lump-sum" basis through the issuance of bonds or similar instruments that are repaid through taxes or assessments. In contrast, developer fees are a form of "pay-as-you-go" financing where funds become available for construction of public improvements or acquisition of land, etc., on an "incremental" basis. Developer fees can ensure that new development will pay its fair share for providing the necessary facilities, or in some cases, its fair

share of the cost of mitigating identified environmental impacts. Developer fees can generate supplemental revenues that can reduce future special taxes or assessments or free up tax increment. They also can generate reimbursement revenues for property owners or public agencies who have previously paid more than their fair share of public improvement costs.

Once areas are designated for desired growth, a Public Facilities Financing Plan can be developed that can provide an overall strategy for financing required facilities and identify an equitable mix of developer fees and public financing mechanisms to provide the necessary improvements to adequately serve new development and/or correct existing deficiencies.

5.1.2 Ability of County General Government to Accommodate Growth and Development

When new development is proposed and planned for, most attention is generally given to public services which are directly impacted by development, such as police, fire, schools, sewer and water service, etc. General governmental services are also impacted by growth and development, yet typically are not addressed in evaluations of new plans and projects. These services include the courts and correctional system, health, welfare, County administration, Auditor, Treasurer and Assessor, to name a few. Fee recovery by such County departments is typically minimal. Like most rural counties in the State, Glenn County government is struggling to meet State mandates and still provide some discretionary services desired by residents (such as Sheriff's patrols, parks and libraries).

The ability of County general government to accommodate growth and development will depend a great deal on the rate at which growth takes place. A slow, steady growth is obviously easier to plan for and to adjust operating budgets accordingly. Unfortunately, development does not always occur at a slow, steady pace. Planning for anticipated growth by designating specific growth areas, establishing strong development policies through the General Plan process, and developing a financing plan to accommodate necessary services needed for anticipated growth will provide some assistance by freeing some of the general fund revenues that might otherwise be encumbered for those needs. A comprehensive financing plan which also recognizes the needs of general government is critical if Glenn County is to benefit from future growth rather than becoming its victim.

5.1.3 Use of County Service Areas

Glenn County currently has two County Service Areas, however, only one is active. The Ambulance Service Area is not funded and is inactive. The North Willows County Service Area (CSA), formerly referred to as Storm Drain Maintenance District #2, provides storm drain maintenance to a defined area northeast of Willows. Storm Drain Maintenance District #3 provides service to an area between the Kanawha Water District and the Willows Airport but does not function as a CSA. County Service Area No. 3 will serve the Parkway Estates development located north of Willows. Formation is expected to be completed in February 1992. Improvements and services to be provided include common leachfields, water for fire protection, storm drainage and street lights.

CSAs, once formed, can provide multiple services where assessment districts generally serve a single purpose. One advantage of using CSAs is to avoid overlapping or stacked assessment districts. Another advantage of forming CSAs, as opposed to a special district, is that the Board of Supervisors acts as the governing board of the district so that the County retains authority and discretion over its activities. Also, because a CSA operates under a separate budget, costs for improvements, maintenance, staffing, etc., will not dilute existing County revenue and personnel.

5.1.4 Public Utilities.

As indicated in the Environmental Setting Technical Paper, natural gas and electrical service within the county is provided by Pacific Gas and Electric Company (PG&E). The existing transmission lines in the county are currently operated below their capacity because of relatively low demand. According to Phil Longo, Service Planning Representative for the Glenn District (PG&E), natural gas service in the unincorporated area of the County is limited due to the lack of peak demand. Natural gas service can readily be extended but demand for service has to warrant extension in relatively remote areas. In general, PG&E will extend service if a developer or individual is willing to put up money for the cost of extension, unless the anticipated recovery from the extension is not considered adequate by PG&E.

Pacific Telephone Company provides telephone service to Glenn County. According to Pacific Telephone Company, there are no major limitations for service within the county. As distance from existing development increases, service extension becomes more costly. Rural subdivisions with larger lots of one acre or more typically do not meet the company's density standards and line extension costs for this type of development are more costly.

5.1.5 School Capacity and Overcrowding.

Eight of the ten school districts in Glenn County currently assess school impact fees on new development. In order to assess these fees, each district must first adopt findings of need. Section 65996 of the Government Code states that payment of impact fees on new development shall be deemed adequate mitigation and that no public agency shall deny approval of a development project based on the adequacy of school facilities.

There have been three court decisions which have bearing on the issue of school impact fees. The first was a 1988 decision, *Mira Development Corp. v. City of San Diego*, which ruled that the issue of school overcrowding could be used as a basis for denying a rezoning application. It was reasoned that Section 65996, referenced above, applied only to "development projects" and not rezoning actions which are legislative acts. In 1991 the *William S. Hart Union High School District v. Regional Planning Commission of the County of Los Angeles* reaffirmed the *Mira* decision and ruled that Section 65995(e) of the Government Code, like Section 65996, applied only to requirements for school facilities financing imposed by a local agency on a development project. In the *Murrieta Valley Unified School District v. County of Riverside* decision, it was ruled that because a general plan amendment is also a legislative act, such an amendment is not a "development project" and subject to the exclusive mitigation measures stated in Section 65996.

The County should include Mira language in the General Plan in order to clarify the County's position on development and its impact on school facilities. This language would make it clear that prior to approval of a legislative action, a finding must be made that approval of such action would not adversely impact existing schools.

5.1.6 Need for Paid Staff for Special Districts

In general, most special districts, including fire districts, within the county operate on a volunteer basis. Because special districts have their own boards of directors and operate independently of the County, funding and staffing for special districts is not an issue typically addressed through the General Plan process. It can be said, however, that the need for paid staff, in a variety of capacities, will grow as Glenn County grows. If districts are not capable of responding to growth pressures, the County's efforts to expand its economic base could be frustrated. The increasingly complex and demanding State and federal regulations also make it ever more difficult to operate sewer and water systems without full time certified staff.

An option to small understaffed and underfunded special districts is to create County Service Areas to replace them. The resulting centralized administration and decision-making will allow for cost efficiencies and permit the hiring of full time staff where such staff may not be justified on a district-by-district basis. The issue of staffing for fire districts is discussed in Section 3.1 of the Public Safety Issue Paper.

5.1.7 Parks and Recreation Acquisition and Staffing.

As indicated in the Environmental Setting Technical Paper, the Glenn County Building and Grounds Department operates nine parks throughout the unincorporated area of the county. These recreational areas cover approximately 100 acres and serve the unincorporated population of 14,050 (1991 Glenn County Profile). Based on these figures, the existing park land to population ratio is approximately seven acres per 1,000 persons. This is slightly higher than the generally accepted ratio of three to five acres per 1,000 persons. Additional park land will be required to maintain this level of service as the county grows.

The location, acquisition, development and management of public and private parks and recreational areas will be addressed during the General Plan process by adopting goals, policies and implementation programs. Once these goals, policies and implementation strategies are adopted, the County can adopt an ordinance requiring the dedication of park land or payment of fees in lieu of dedication for new development that occurs in the county pursuant to the Quimby Act. Land dedicated or fees paid pursuant to a Quimby ordinance can be used for acquiring and developing new parks or rehabilitating existing facilities needed to serve new development. The standards for adopting such an ordinance will be discussed in Section 5.1.8 of this Issue Paper.

Dedications and/or fees received through the implementation of a Quimby ordinance can only be used as described above. The County will need to look at other ways of funding to staff and maintain park sites. One way would be to form a Parks and Recreation District. Another would be to include park development and maintenance as a function of a County Service Area. User fees could also generate revenue to help defray the cost of park maintenance.

5.1.8 Standards for Quimby Act Fees.

The enabling legislation for adoption of a Quimby ordinance is contained in Section 66477 of the Government Code. Once adopted, the local legislative body may require dedication of land, payment of in-lieu fees, or a combination of the two for park and recreational purposes, as a condition of tentative or parcel map approval. The ordinance must include standards for determining the amount of land to be dedicated or fee to be paid based on the residential density of the proposed subdivision and the average number of persons per household (based on the most recent available federal census data). The dedication or payment required cannot exceed the proportionate amount necessary to provide three acres of park land per 1,000 persons proposed to reside in the subdivision, unless the ratio of existing park land per capita is higher. In such case, the legislative body may adopt a higher standard not to exceed five acres per 1,000 residents.

Section 66477 includes additional specifications for inclusion in a Quimby ordinance which will need to be addressed at the time of adoption, if the County decides to pursue such a path. The General Plan should contain language that will support the adoption of an ordinance based on definite principles and standards. Standards to be considered include:

- An established park land per capita ratio
- A formula for determining the amount of an in lieu fee to be paid when dedication of land is not made
- Under what circumstances payment of a fee in lieu of dedication of land will be accepted
- The minimum size of park that will be maintained

Because the existing park land/per capita ratio is approximately seven acres per 1,000 persons, adopting a ratio of five acres per 1,000 persons, the maximum allowed under State law, would seem reasonable and justifiable. When considering the amount of the fee to be paid in lieu of dedication, the fee should be based on the cost per acre to purchase land in accordance with the established land/per capita ratio. If land is dedicated for park and recreational purposes as part of the Subdivision Map Act, the land would typically be zoned for residential use. It would, therefore, be equitable to assess a fee based on the average cost per acre of land zoned and assessed for single family residential use.

Section 66477(g) of State law states that only the payment of fees may be required in single family subdivisions containing 50 parcels or less. The word "may" indicates that this standard is a permissive one and not mandatory. The County will need to establish a threshold under which only fees will be assessed and dedication of land will not be required. For an example, based on the per capita ratio of five acres per 1,000 persons, a 50 lot subdivision would require .7 acres of park land; a 72 lot subdivision would require one acre of park land; and a 357 lot subdivision would require five acres of park land. One factor to take into consideration in establishing this threshold would be the minimum size of park sites the County wishes to develop and maintain.

If a 50 lot threshold is established, the County could end up with numerous small parks with little or no recreational development potential. A five-acre park site could be developed as a neighborhood playground. If five acres is established as the minimum which the County will develop and maintain, only subdivisions of 357 lots or more would be required to dedicate land; divisions of 356 lots or less would pay an in-lieu fee equivalent to the proportionate acreage requirement.

5.2 Wastewater Treatment.

Within the three areas presently served (Orland, Willows and Hamilton City), wastewater treatment should not be a major problem. Present facilities have surplus capacity and future expansions can be planned and accommodated. Regardless of jurisdiction, all future wastewater should be collected and treated at a single plant within each of these three communities.

In other areas of the county, provision of wastewater treatment facilities will be much more difficult due to the tremendous capital costs associated with plant construction. Densities in newly developing areas can be planned so as to make centralized collection and treatment of wastewater feasible. In addition, the number of new communities or PUDs should be severely limited to assure adequate concentrations of population in those which are developed to support operation and maintenance of facilities.

5.2.1 Plant Capacities and Facilities Planning.

There are three community wastewater treatment facilities which serve most of the urbanized area of Glenn County. The Hamilton City Community Services District treatment system is operating at approximately one-half of its design capacity. This facility can serve an additional 2,500 residences before expansion will be necessary. The City of Orland is planning for expansion of its sewer treatment ponds to accommodate expected future growth. This wastewater treatment plant presently operates at approximately one-third of its capacity. The City of Willows operates its wastewater treatment facility at a little over half of its design capacity. The facility is capable of handling the area's current annual growth rate.

5.2.2 Location of Future Wastewater Treatment Facilities.

The siting of new wastewater treatment facilities should be undertaken as a coordinated effort between the County, cities and special districts. If these facilities are not adequately planned for, the potential for land use conflicts is more likely to result. Establishing policies through the General Plan process will not only assist in the siting of new facilities but can also encourage concentric growth and infill development by directing new development to the areas which can be served by current facilities. The potential for new facilities will depend on County growth location policies, the demand created and funding for construction.

5.2.3 Sewage Disposal in West Orland.

Individual septic tank systems are the method of wastewater disposal in the West Orland area. In general these systems have been satisfactory. Because the soils are extremely porous and the groundwater table is fairly high in this area, there have been cases of groundwater contamination reported. In 1986 the County adopted the West Orland Specific Plan which included a policy

statement setting the minimum parcel size for parcels served by an on-site well and septic tank at two acres. This policy was based on a residential development density study prepared by Carroll/Resources Engineering and Management in 1985. In 1991 the Specific Plan was amended to include objectives and policies to implement the Plan. One policy which was adopted, Policy II.A, requires that development at a density of one acre or less shall occur on a sewer system.

Because of the extremely porous character of the soils, the County should set extension of sewer service to West Orland as a high priority. As noted in the Natural Resources Issue Paper, West Orland is situated in an area of high groundwater recharge. This also means that septic effluent can easily enter groundwater aquifers. Unfortunately, expansion of the Orland sewer system to serve West Orland is blocked by I-5 which will make extension of sewer service a very expensive proposition.

5.2.4 Septic System Limitations.

Limitations on the use of individual septic systems include soil permeability, topography, depth to groundwater and other physical characteristics. Septic tanks operate well in the parts of the county where the soil drains well and is considered gravelly. The soils characterized by rapid percolation, such as those in the West Orland area, provide inadequate treatment for the sewage before it reaches the groundwater. The southern part of the county is dominated by heavy clay soils with a slow percolation rate and high groundwater table. The soils in the North Willows area are deep, well-drained and slowly permeable, resulting in the need for large leach fields to adequately treat the sewage. Septic tanks in the foothills are difficult to install, primarily due to the limited amount of soil covering rock. Installation of individual disposal systems in areas containing soils with specific limitations typically have to be specially designed or engineered to accommodate or compensate for those limitations.

In May 1990, the County adopted new sewage disposal regulations for on-site wastewater disposal systems. These regulations are contained in the Land Division Ordinance, Title 17, and in the Land Development Ordinance, Title 20. Title 17 sets forth the requirement that public or community sewage disposal systems are required on lots less than 10,000 square feet, and on lots larger than 10,000 square feet if no public or community water system is available and site conditions are not conducive to individual systems. Site conditions include the limitations described above. Title 20 specifies the procedure for obtaining a permit for installation of a disposal system as well as site evaluation requirements for designing the system. The County Health Department is in the process of initiating a study to further evaluate these regulations with regard to adequate filtration, the design of alternative systems in areas of extreme soil conditions, and the development of construction standards for the installation of trench systems.

5.2.5 Septage Disposal Limitations.

Concern has been expressed at the local level regarding limitations on septage disposal. The County generated 636,000 gallons of septage in 1991. According to the Glenn County Health Department, there is one site in the county used for this purpose located at Road 35 and Road N. The site is approximately 85 acres in size and is used for sheep grazing. The property owner has

allowed the local pumping companies under permit with the County Health Department to spread septage over the ranch on a gratis basis. The site is currently under review by the State Regional Water Quality Control Board (SRWQCB) for establishment of waste discharge requirements. If for some reason a permit is not issued by WQCB, alternative disposal sites would need to be identified and established. The County landfill does not currently accept septage. A revision to the County's operating permit would most likely have to be obtained from the California Integrated Waste Management Board prior to accepting septage at the landfill. Alternative disposal sites within the county would be the municipal wastewater treatment plants. If a site is not identified within the county, septage would have to be transported out of the county, increasing the cost of septic tank maintenance.

5.2.6 Identification of Development Densities Requiring Community Sewer Systems.

Chapter 17.42 of the County's Land Division Ordinance states that proposed development on lots less than 10,000 square feet shall be required to connect to a public or community sewage disposal system. A review of the minimum parcel size requirements of the zoning categories that allow the creation of parcels one acre or less is contained in Table 5-1. The standard for these urban classifications is 20,000 square feet when served by either public sewer or water. The standards contained in the two ordinances are not consistent. The 20,000 square foot standard contained in the various zoning regulations is more restrictive than the standard set by the Land Division Ordinance. The more restrictive standard provides for a larger area which is more appropriate to ensure adequate setback is provided from property lines, adequate separation is maintained from water sources, whether on- or off-site, and adequate replacement area is available should leach lines fail. The County may want to establish minimum standards through the General Plan process and amend the ordinances to reflect that standard.

5.3 Water Service.

Groundwater is relatively abundant in Glenn County and can normally be found in sufficient quantities to serve development. Its availability could become problematic, however, should the County determine to direct development to the foothills where geologic conditions add difficulty to the search for water and typically reduce yields. Surface supplies are not presently utilized for domestic purposes and it is unlikely present growth rates and groundwater conditions will require pursuit of surface supplies.

Table 5.3-1

**TABLE 5-1
URBAN ZONES MINIMUM PARCEL SIZE REQUIREMENTS**

Zone	Minimum Parcel Size if Served by Both Public Sewer and Water1	Minimum Parcel Size if Served by Either Public Sewer or Water1	Minimum Parcel Size if Served with On-site Septic System and Well1
R-1 (Single Family Residential)	5,000 s.f.	20,000 s.f.	40,000 s.f.

R-M (Multiple Family Residential)	5,000 s.f.	20,000 s.f.	40,000 s.f.
C (Commercial)	6,000 s.f.	20,000 s.f.	1 acre net
M (Industrial)	10,000 s.f.	20,000 s.f.	1 acre/5 acre ²
LC (Local Commercial)	8,000 s.f.	20,000 s.f.	40,000 s.f.
CC (Community Commercial)	8,000 s.f.	20,000 s.f.	40,000 s.f.
SC (Service Commercial)	12,500 s.f.	20,000 s.f.	40,000 s.f.
HVC (Highway and Visitor Commercial)	8,000 s.f.	20,000 s.f.	40,000 s.f.

¹Except in a Planned Unit Development project.

²Varies on sub-zone requirements of M-1 or M-5.

Source: Glenn County Zoning Code

5.3.1 Water Distribution System Planning

As noted earlier in this Issue Paper, domestic water is provided throughout the county by several sources: California Water Service Company, the City of Orland, Black Butte Water Company, Elk Creek Community Services District, Butte City Community Services District, and Artois Community Services District. These water distribution systems are not under County control. Coordinating with these individual districts and companies is vital to the planning process. Each agency should be consulted during the development application/permit review process to evaluate the impacts of development on the existing system and to facilitate extension/expansion design.

State law requires special districts and other public agencies proposing to undertake capital improvements to submit a list of projects to the local planning agency for a general plan finding of consistency prior to undertaking any construction (Government Code Section 65401). The County should assure that special districts are complying with this requirement in order to facilitate general plan implementation.

In newly developing areas, the County may choose to establish systems under the auspices of a County Service Area. This will provide greater control over the planning and development of such systems and will permit closer coordination between infrastructure availability and development opportunities. Where existing special districts are unable to meet the demands of new regulations and growth, the County may wish to consider taking over such operations. Water facilities can be operated without posing a burden to County taxpayers as long as a realistic rate structure is adopted.

5.3.2 Identification of Development Densities Requiring Community Water Systems

The Land Division Ordinance of Glenn County, Chapter 17.44, addresses when a public or community water system shall be required as a condition of subdivision map approval. A water system is required when either of the two following conditions exists:

- The development is within the Urban Development classification with lots smaller than 10,000 square feet; or
- The development is within the Urban Development classification with lots larger than 10,000 square feet and no public or community sewage disposal system is available.

A review of the minimum parcel size requirements of the "urban density" zoning classifications is shown on Table 5-1. The minimum parcel size requirement if a parcel is served by either public sewer or water is 20,000 square feet for all the classifications listed. This standard, which approximates one-half acre, is generally more appropriate when individual wells are utilized in order to provide adequate setbacks from property lines and separation from septic systems, whether on-site or on adjoining property. The County may want to establish minimum standards through the General Plan process and amend the ordinances to reflect that standard.

Another aspect to consider in identification of development densities in relation to community water systems is the requirement for adequate fire flow. The Land Division Ordinance sets forth the requirements for fire flow and this subject is discussed in more detail in Section 3.5 of the Public Safety Issue Paper.

5.4 Location and Distribution of Public Facilities.

The location and distribution of public facilities needed to serve new development should reflect the demand created by the anticipated growth. In order to address this issue the County must first determine where the growth will occur. Once land use patterns are established, the location and distribution of public facilities can be identified. When dealing with specific plans, actual sites for facilities can be established and developers can be requested to dedicate such sites.

Policies and standards, including level of service standards, addressing public facilities should be included in the General Plan. The County should be careful, however, in actually designating lands for such uses in the General Plan in order to avoid claims of inverse condemnation and property devaluation. Policies and standards, if well written, can guide future decision-making to assure that adequate sites are reserved. As growth continues in the north part of the county, it is likely that greater concentrations of public service facilities will be required in that area.

5.4.1 Schools and Other Educational Facilities.

The acquisition of school sites, as well as the disposition of sites/facilities, is at the discretion of the individual school districts. State law requires that school districts consult with the local planning agency prior to acquiring, disposing or development of property. This process provides for a review by the local agency in the context of the general plan and its various components.

By the same token, the County is required by State law to include in its General Plan the proposed general distribution, location and extent of educational facilities.

5.4.2 2Parks and Recreational Facilities.

The acquisition of park land and standards for adoption of a Quimby ordinance were discussed in Sections 5.1.7 and 5.1.8 of this Issue Paper.

5.4.3 Trail Systems and Trail-Oriented Recreational Use.

The potential for developing bicycle trails exists throughout the valley floor of the County because of its flat terrain. As indicated in the Environmental Setting Technical Paper, two major bicycle routes have been proposed as part of regional systems: one paralleling I-5 which would eventually extend from Bakersfield to the Oregon border and one along the Bayliss-Blue Gum Road connecting with a Butte County system. Development of these routes should be coordinated with Caltrans and Butte County.

5.4.4 Public Buildings and Grounds.

As discussed earlier, the need for public buildings and grounds will be dictated by the established growth and land use patterns. Among the types of uses which should be addressed are: libraries, health facilities, governmental offices, maintenance facilities, and utility structures. To address new facilities, policies and standards should be included in the General Plan which guide their development. For the development of libraries, as an example, the County may want to establish a per capita ratio in order to ensure that library services are adequate to serve the residents of the county. For health facilities, policies should be adopted which address access for emergency vehicles, availability to residents, and noise tolerance levels. As noted above, it is likely more facilities will be required in northern county areas if present growth patterns continue.

5.5 Public Services and Facilities Opportunities, Constraints and Conclusions

- Glenn County has limited service delivery capability, particularly in unincorporated areas. Of special note is the fact that the County has no sewer or water capacity. If the County is to embark on a path toward more intensive development in unincorporated areas, large sums of money must be found to pay for infrastructure development. Development adjacent to the two cities or Hamilton City where existing systems can be extended will be less difficult. This assumes, however, that the cities will cooperate in the extension of sewer and water systems to newly developing unincorporated areas.
- There will be no assistance from other governmental levels as the County seeks ways to finance infrastructure and services. Further, the private sector cannot provide all of the required up-front investment on its own and still remain competitive, and Glenn County cannot remain competitive with other jurisdictions unless it has a program in place to assist with infrastructure financing.

- There are a variety of ways to finance needed facilities. Glenn County needs to pursue several avenues at one time including exactions, fees, and assessments. Mello-Roos district financing should be made available and the County should consider tax increment funded redevelopment within existing unincorporated communities. An overall public facilities financing plan should be prepared which describes the mix of techniques to be utilized and the circumstances for their use. A Capital Improvements Plan will be prepared in conjunction with the General Plan effort which will contain the major components of the countywide infrastructure system along with a methodology for allocating costs. This can form the basis for a more detailed and comprehensive public facilities financing plan.
- The impacts of growth and development on general County government services should not be overlooked. These costs should be factored into plans for cost recovery, where possible, when considering impact fees and other mitigations.
- Where new service delivery agencies are required to deliver services and equitably establish a financing mechanism, the County should utilize the County Service Area approach, retaining control and avoiding a proliferation of small special purpose governmental units.
- Availability of gas and electricity is not a constraint in Glenn County although cost of line extensions in remote areas may be cost prohibitive due to the low overall population density in the county.
- The County should include Mira language in the General Plan in order to clarify the County's position on development and its impact on school facilities. The public facilities financing plan discussed above should include provision for schools.
- The County should take the lead in determining if special districts are capable of meeting their service commitments and in the event they are not, should consider forming County Service Areas to handle delivery of services, particularly in areas where the County wishes to encourage growth.
- Within the communities of Willows, Orland and Hamilton City, all wastewater treatment should be collected and treated at a single facility within each of the three communities. The General Plan should establish policy to this effect, and require all new development of a specified density and land use intensity to hook up to a sewer system.
- The siting of new wastewater treatment facilities should be undertaken as a coordinated effort between the County, cities and special districts. Establishing policies through the General Plan process will not only assist in the siting of new facilities, but can also encourage concentric growth and infill development by directing new development to areas which can be served by current facilities.
- Densities in newly developing areas should be planned so as to make centralized collection and treatment of wastewater treatment feasible. In addition, the policies of the General Plan

should be designed to limit the number of new communities or PUDs to assure that there are adequate concentrations of population to support operation and maintenance of facilities.

- A high priority should be placed on the extension of sewer service to West Orland in order to protect health and safety and, in particular, a valuable groundwater recharge area.
- Septic system and septage disposal limitations should be taken into consideration when determining which areas are suitable for new development not served by wastewater treatment facilities. Soil types and groundwater levels will have a significant influence on septic tank suitability. Because of the large number of septic systems in the county, it behooves the County to assure that an adequate area for septage disposal is permitted within the county for that purpose.
- The County should establish a minimum parcel standard of 20,000 square feet for lots created without public or community water service. Establishing this standard will require amendment to the Land Division Ordinance, however, it will provide consistency among the ordinances.
- Coordination and cooperation should be maintained between the County and water purveyors. The County should assure that special districts are complying with State law by referring project lists to the County for review and evaluation for general plan consistency in order to facilitate General Plan implementation.
- The County should consider establishing a County Service Area which can provide a variety of public services, including water. Where existing special districts are unable to meet the demands of new regulations and growth, the County should consider taking over such operations under the auspices of a County Service Area, particularly in areas where the County wishes to encourage growth.
- Decisions need to be made concerning how park and recreation services will be funded in the future. Quimby Act fees should be imposed to pay for park acquisition and development. The County should consider a County Service Area to cover the ongoing costs of park and recreation services.
- The location and distribution of public facilities needed to serve new development will be dictated by where the growth occurs. Policies and standards should be adopted which guide decision-making to assure that adequate sites are reserved; however, caution should be taken in actually designating lands for public uses if they are privately owned.
- Level of service standards should be established for public services. The standards can then be used to evaluate the impact of development on the various services. Level of service standards can also be used to evaluate distribution and expansion needs.

- The County should coordinate with Caltrans and Butte County in development of regional bicycle routes through the county.

6.0 ECONOMIC DEVELOPMENT.

Background

Economic development looms as one of the preeminent issues confronting Glenn County as it plans for its long-term future. The vitality of the county's economy is a direct determinant of the extent to which local residents can afford, and will enjoy, an adequate level of public services. A healthy economy is also necessary to ensure adequate employment opportunities for those living in the county. The availability of income to local wage earners and households, the natural consequence of economic vitality, is one key to county residents' enjoyment of a desirable quality of life.

The Environmental Setting Technical Paper, previously referenced, documents a number of conditions identified as characterizing the current state of the Glenn County economy. As noted in that document, "a general characterization of the economy of Glenn County would be that it is comparatively dependent upon a narrow range of activities, is heavily dependent upon public sector (government) employment, generates employment and income at rates slightly below the average rate for the State of California and the United States, and is somewhat static (that is, relatively little change occurs in the distribution of economic activity among the various segments of the economy from year to year)." The referenced document further cites the vulnerability of the Glenn County economy to deterioration. Its predominant dependence upon agriculture, in a period of intense drought and increasing regulation, coupled with a proportionately equal dependence upon government employment in an era of greater public concern than ever before with public sector spending and growth, are noted as key examples of the extent to which Glenn County's economic health is susceptible to erosion.

Glenn County, notwithstanding many of the issues which currently act to constrain local economic vitality, has a number of potential opportunities for economic improvement. Moreover, local public and political commitment to economic development is strong. Importantly, as well, there are formidable resources in place in the county to pursue and take advantage of economic development opportunities -- local leaders, University faculty members with specialized expertise, professional economic development staffs, and government agency staffs are all evidently well-prepared and well-qualified to undertake and carry out an economic improvement agenda.

Economic issues are perceived as inextricably linked to the process of determining overall policies and development proposals for the County's General Plan. To the degree that land use decisions and the creation and maintenance of public infrastructure are outcomes of the Plan, the County's potential for economic development is significantly affected by General Plan goals, policies and programs. It has been made clear since the outset of the General Plan revision process that the County is seeking a proactive, rather than passive, role in stimulating growth and

diversification of the local economy. Equally clear is the County's intent to utilize the General Plan, in combination with other available tools, to accomplish these objectives.

What, then, are the key issues upon which the General Plan can focus which will enable existing economic conditions to be improved in Glenn County? In the following sections, these issues are identified and discussed. Wherever possible, local perceptions of economic issues, and opportunities and constraints attending these issues, are presented, derived from input from individuals and organizations active in the local economic development milieu. In each instance, the consultants' own judgments also are offered.

Specific Concerns

6.1 Unemployment and Seasonal Employment

Glenn County has an average annual unemployment rate which is substantially higher than those of the State and the country as a whole. The countywide average annual rate of unemployment hovers in the vicinity of twelve percent, compared to about five percent for California and the balance of the U.S. In raw numbers, of the county's total labor force in 1990 of about 10,350, nearly 1,300 were unemployed on the average.

On a seasonal basis, these figures, and the gap between the rate of employment in Glenn County and in the balance of California and the nation, become even more discouraging. Because of the large number of local workers employed in agriculture, and the corresponding seasonal nature of the harvest cycles, peak unemployment rates in the county reach or exceed fifteen percent or more regularly from December to March each year.

From the planning perspective of the County, these characteristically high unemployment rates, both year-round and seasonally, create several concerns. First, it is obvious that an appreciable number of county residents are not earning significant income, and consequently are contributing little support to the county's economic activity in the form of consumer expenditures. Second, it is reasonable to conclude that unemployed segments of the population are contributing comparatively little in the form of tax revenues necessary to fund local, State and federal programs and services. Simultaneously, all residents, regardless of whether employed or not, require at least minimal public services (e.g. police and fire protection, health services, streets and roads, etc.). Beyond basic services, many unemployed residents require subsidy or support from the public assistance system; Glenn County had 12.5 percent of its population receiving some form of public financial assistance in June, 1991.

A related concern is the relatively low average wage scale paid for employment in Glenn County. This is a function of the predominance of agriculture in the overall makeup of the county's job market. Per capita income in Glenn County is only eighty-one percent of the statewide average, and growth in personal income from year to year in Glenn County lags behind the rate of growth for income earned by Californians and Americans as a whole. Again, it is reasonable to conclude that the availability of less income to residents of Glenn County means that there is a lower proportionate rate of per capita economic activity being generated in the

county and a corresponding lower rate of tax revenue generation to finance basic public services, as well.

Two issues, therefore, are regarded as key in planning for the economic development of Glenn County through the General Plan update. Stated as simply as possible, these issues are: (1) How can the number of jobs available to the residents of Glenn County be increased? (2) How can the amount of income earned per capita by county residents be increased? In addressing and, hopefully, resolving these issues, the corollary concerns of the extent to which high unemployment, seasonal fluctuations in employment, and comparatively low wages being paid to the labor force create burdens on public services and financial assistance programs should also be addressed.

6.2 Economic Diversity

As noted in the Environmental Setting Technical Paper, agriculture represents about twenty-two percent of the total countywide jobs base. Government employment comprises nearly a quarter of all jobs available in the county. Among the remaining major categories of employment, jobs in industry represent approximately twenty percent of the countywide total, although significantly, virtually all industries in Glenn County are related to agricultural operations. Commercial retail employment is about 13.5 percent of the countywide jobs total, and growth potential in this sector of the economy is constrained by the general lack of spendable income alluded to in the preceding paragraphs. Also reflecting the static state of the local economy, the construction industry employs only about 3.5 percent of all workers countywide. Forestry, predominantly timber management and harvesting, employs about 4.4 percent of the county's jobholders. From the standpoint of the desirability of long-term economic vitality, the overall lack of diversity of jobs available in Glenn County is problematic.

Government employment is the largest single source of jobs in the Glenn County economy. Federal agencies such as the National Forest Service and the U.S. Fish and Wildlife Service have a long-established presence in the area, a consequence of the county's natural resource base. Local governments (County, cities and schools) employ a very substantial number of Glenn County residents. In many respects, government employment is one of the most stable anchors of any local economy. Job security is often high, annual increases in wages tied to inflating costs of living are standard policy in many government agencies, and employees are usually well-protected by laws and regulations addressing working conditions, benefits and prerogatives. Moreover, although funding constraints have increased in recent years, in comparison to many segments of the private sector economy, government employment enjoys a relatively constant and secure financial base. Similarly, the demand for services provided by government agencies generally grows in proportion to population growth, at a minimum, ensuring that the public sector of most local and regional economies experiences little or no shrinkage. In the words of one contemporary California political figure, "Government is great at addition, but weak at subtraction."

Many economists argue, however, that the size of government, and the corresponding tax burden to support it, have a directly proportionate negative effect on real economic growth in a region. The diversion of economic resources, in the form of taxes, from private enterprise and

production reduces the extent to which local investment can be made in the private sector. Additionally, as evidenced beginning with the passage of Proposition 13 in the late 1970's, Californians and Americans are demonstrating that there is a finite limit on how much of a tax burden is tolerable. Consequently, the potential for government as a segment of the economy to grow without severe limits no longer exists.

Finally, government consumes the county's economic resources almost entirely internally to Glenn County. It does not create products for sale to outside agencies, bringing new dollars into the county. Government services are "consumed" locally, having been provided using the tax dollars (including federal and State) which were paid locally.

In view of the foregoing concerns, the large degree to which Glenn County's economy is dependent upon government employment is regarded to be a signal of that economy's overall lack of vitality.

Agriculture, the second largest source of local employment, is plagued as an industry by uncertainties in weather, increasingly scarce and/or costly water supplies, unpredictable shifts in markets and pricing, and expanding government regulations which affect the potential financial success of segments of the industry. As noted above, the compensation scale paid to most agricultural employees is typically near the minimum legal wage. Added to the seasonally fluctuating nature of agricultural employment, these characteristics make the predominance of agriculture in the county's economy a substantial concern.

The combination of agricultural employment and government jobs make up nearly half of all work available to Glenn County residents at this time. Add to this fact the knowledge that most of the county's industrial employment is in agriculturally-oriented businesses, and it is abundantly clear that lack of economic diversity in the county should be a major worry to be considered in planning for more stable long-term economic growth. At issue in the General Plan update process, therefore, is how to create new economic activity, including employment opportunities, in segments of the economy beyond government and agriculture.

6.3 Regional Competition

The Environmental Setting Technical Paper notes that "...substantial 'leakage' of retail sales, particularly for so-called 'comparison shopper goods' (e.g. furniture, appliances, automobiles, high-ticket clothing, and electronics), takes place in Glenn County. Many shoppers are presumed to travel to Chico and even to Sacramento to make major retail purchases." The Technical Paper goes on to cite that the type of sales leakage being experienced by Glenn County is characteristic of market areas which are in proximity to larger trade centers but which lack their own population and/or economic base to support major retail outlets locally. The Technical Paper also summarizes historic sales data which shows that Butte County and the City of Chico experience per capita taxable and retail sales roughly twice the levels of the sales in Glenn County and the Cities of Orland and Willows. This sales leakage represents a substantial export of economic activity and resources out of the County. Whether, much less how, such resources can be recaptured and retained in Glenn County is a key issue to address in the economic component of planning for Glenn County's future.

During the assembly of data for the Environmental Setting Technical Paper, local officials identified what were regarded as signals that Glenn County was beginning to experience "spillover" growth from the Chico area in Butte County. Because housing prices in Glenn County are generally lower than for comparable housing in Chico, commuter settlement patterns are thought to be emerging, wherein employees of Chico area businesses are relocating their places of residence to Glenn County sites. Although potentially a source of impetus for the creation of additional attractive housing stock in Glenn County, such a pattern is also problematic -- studies routinely demonstrate that residential development does not "pay its own way" in terms of government services (i.e. the cost of providing police and fire protection, street and road maintenance, etc. generally exceeds the tax revenues generated by such development). This is particularly true when residents export their taxable purchase activity outside the local jurisdiction. Consequently, the potential for Glenn County to increasingly serve as a "bedroom community" for the larger nearby employment and trade center in Chico is an issue which should be addressed in the context of the General Plan update.

Conversely, there is also some discussion among local officials and economic development practitioners regarding the relocation of businesses from the Chico area to Glenn County. Economic dislocation, as the cost of land in Chico grows, has been cited as one incentive for businesses to consider Glenn County sites as alternatives to Butte County. Proximity to the resident workforce, given the discussion in the preceding paragraph, also has some relationship to the desirability of business locations in Glenn County. Discussion of this topic is often guarded among local officials, because of the competitive aspects of economic development among communities. At the same time, there is a healthy recognition by many local and responsible officials that regional, as opposed to strictly local, economic growth is of general benefit to all concerned. The issue, therefore, to be included in consideration of plans and priorities for Glenn County's economic future is the extent to which balance can, and must, be achieved between competitive and cooperative efforts to encourage local and regional economic development.

6.4 Local Business Retention and Expansion

A common key element of virtually all successful economic development programs at the local level in California is a strong emphasis on retention and expansion of existing local businesses. Such businesses have already established that they have at least some preferences for operating locally. Consequently, working to ensure that they remain in the area and, if expanding, that they consider local expansion before looking at out-of-area sites, is often a far more efficient utilization of economic development program resources than ventures into the comparatively competitive environment of seeking new industry and business from outside the locale.

Glenn County already offers substantial support, through its various active economic development agencies, to existing businesses in the area. Technical assistance, loan programs, and other aspects of the activities of the Glenn Chamber of Commerce Economic Development, Inc., the Tri-County Economic Development Corporation, California State University Chico's University Center for Economic Development and Planning, and the City of Orland's Economic

Development Commission are all currently supportive of existing local business and industry, as well as directed to new business recruitment.

In the framework of the County's General Plan update, however, it will be necessary to ensure that policies and programs are established which, while consistent with other planning goals (e.g. environmental sensitivity, land use compatibility, etc.), accommodate and encourage the continued operation and expansion of existing local businesses. At issue will be the extent to which Glenn County may be perceived by local businesses, as well as prospective new industries, as a viable and productive location for operations.

6.5 Implications of State and Federal Actions.

Aspects of the Glenn County economy are both directly and indirectly subject to State and federal policies, programs and actions. Issues in this context include:

- Federal and State employment represents an important segment of the local workforce. Were major changes in local levels of federal or State employment to occur, the local economy would be affected proportionately.
- Statutory and regulatory policy promulgated by the State and federal governments can affect the Glenn County economy, based as it is on agriculture and timber resources, both closely-regulated industries. For example, upgraded federal protection status for the Northern spotted owl has resulted in decreased timber harvesting activities throughout northwestern California. Similarly, State regulation of rice field stubble burnoff appears imminent, with unavoidable consequences for growers of this major crop commodity in Glenn County.
- California's Governor has proposed material changes in the State's welfare system, including a reduction in paid benefits. In view of Glenn County's comparatively large number of public assistance program recipients, a reduction in payments will have an appreciable impact on county economic activity.
- Recent reports from the California Business Roundtable and other organizations suggest that the regulatory environment and the tax structure in this state have driven the cost of business up in comparison to other regions of the country to such an extent that industry and business are relocating. Estimates that range as high as 160,000 jobs statewide being transferred out of California have been published. If these estimates prove reliable, they represent ample illustration of potential negative consequences attributable to the effort to balance critical environmental and fiscal concerns with the need for economic stability and growth.
- On the plus side, various federal initiatives loom which could potentially result in economic benefits to Glenn County. For example, a major highway funding bill was recently passed by Congress, a portion of which will result in highway construction and reconstruction throughout California. It has been projected that each billion dollars of highway construction funding will result in the creation of one thousand new jobs in the industry and related businesses. Importantly, as well, there is discussion at the Congressional level regarding the

need for aid to economically distressed rural areas, in the form of tax incentives through creation of new rural enterprise zones. This concept is perceived as having bipartisan support in Congress and given a good likelihood of passage and funding.

- On an even more concrete level, officials with the U.S. Fish and Wildlife Service talk optimistically of expanding programs and staffing at the national wildlife refuges in Glenn County. Effects on the local economy associated with such expansion would be both in the form of direct job creation and indirect benefits from increased visitation to the area by tourists, hunters and others.

Glenn County officials and staff with the local economic development organizations all profess to maintain good relationships with local State and federal elected officials. The importance of keeping such officials apprised of the issues which are critical to the local economy should not be understated.

6.6 Economic Development Opportunities, Constraints and Conclusions

- The county has a readily available, low-cost labor force potentially to offer to new industry. Glenn County's year-round unemployment rate, although costly in both economic and social terms, simultaneously represents an accessible pool of prospective workers for unskilled and semi-skilled employment at probable low cost to industry.
- The general flight of industry from the State's urban areas to more rural settings, including the previously-referenced displacement of industry from the expanding Chico area, may result in businesses being interested in Glenn County as a potential base of operations. The county has excellent highway transportation access, adequate rail access, and is not so remote from urban area shipping terminals and markets that it is infeasible as an industrial location. The economic development policies of the General Plan should build on the county's strengths and should set clear policy to target the County's economic development efforts.
- The two airports located in Willows and Orland offer some opportunity to attract smaller industries and businesses. Although growth in general aviation nationwide is projected to be relatively flat, airport facilities have been demonstrated to be attractive to a number of types of small businesses as sites for operations. The General Plan should include policies regarding protection and development of the county's airport resources.
- The availability of a substantial number of national forest campgrounds and other recreational opportunities will attract visitors to the county. The southerly I-5 corridor through Glenn County particularly may be positioned to capitalize upon such visitor traffic as it passes through from the Sacramento area to forest destinations. Policies promoting tourism should be included in the economic development policies of the General Plan. It is also important to emphasize the improvement of access to the national forest, if the County is to truly capitalize on this asset.

- Overall, the county's highway and service commercial sectors of the economy may not be capturing the share of traffic-generated business along I-5 that may be possible. Strategies for improving this sector of the economy should be included in the economic development policies and other General Plan policies as appropriate.
- The Hamilton City area may offer the potential for development of an industrial park which can capture spinoff growth from the Chico urban area. This may occur as certain types of industries are squeezed out of the Chico area by growth and changing local priorities. The Hamilton City area is receptive to growth and jobs, and has potentially serviceable sites.
- The wildlife refuges in the region, particularly as visitor amenities improve, will continue to attract thousands of visitors annually to Glenn County. The extent to which these visitors can be induced to stay and spend money locally is indeterminate, but may represent a substantial potential opportunity which should be addressed in the economic development policies of the General Plan.
- The county's natural gas and aggregate resources may have an expanded market in future years. Although not proportionately employment-intensive, this segment of the economy would provide some additional jobs and income to County residents. Policies regarding development of energy resources will be included in the Energy Element of the General Plan and should be reflected, as appropriate, in the economic development policies of the General Plan. Aggregate resources extraction is discussed in the Natural Resources Issue Paper. The County needs to make some policy decisions as to whether to encourage, discourage or simply accommodate increased mineral extraction in light of environmental issues associated with that process.
- The tourism study previously performed for the County identifies farm and ranch-related tours and special events as potential attractions for tourism in Glenn County. Local response to this suggestion indicates that this idea may have limited utility in Glenn County. Local economic development officials need to decide whether there is any merit to this idea and proceed accordingly.
- The presence of California State University, Chico, and to a somewhat lesser extent, Butte College in close proximity to Glenn County represents a substantial resource. Technical assistance to businesses, the appeal of a university environment, training and research capabilities, and other factors make the two colleges an attribute in attracting and retaining businesses locally.
- The commitment of substantial portions of valley floor land to agriculture, including many parcels under Williamson Act contracts along the I-5 corridor, limits development potential for industrial and highway-oriented commercial uses. Similarly, land ownership with little inclination to develop and/or unrealistic economic expectations pertaining to development may retard local ability to capitalize on the I-5 corridor as an economic resource. Land use

policies of the General Plan should address and resolve appropriate locations for nonagricultural development.

- Expansion of the tourism economy associated with the National Forest and the wildlife refuges will be incremental. There is not sufficient capacity and/or potential activity associated with either of these resources to have "wholesale" impacts on the local economy.
- The labor force available to industry in Glenn County is comparatively untrained and unskilled. Some industries require a greater diversity of education and training than is currently available in labor resident to the county. As a consequence, the county may be bypassed if it maintains an unskilled work force. This must be overcome through linkage with Butte College, U.C. Davis, and C.S.U. Chico.
- It is difficult to attract businesses and industry to communities which are not large enough to offer substantial amenities. Although the rural environment and lifestyle offered in Glenn County are appealing to many, analysis of industrial site location decisions across the nation indicates that community amenities rank relatively high on decision-makers' lists of criteria.

7.0 ALTERNATIVES

For each Issue Paper, three alternative scenarios were developed and reviewed with the staff, Citizens Advisory Committee and decision makers. As suggested in the State General Plan Guidelines, for any set of circumstances, a number of possible courses of action or planning scenarios exists. It is the purpose of this Section to identify a reasonable range of alternatives related to community development in Glenn County and to explore the various pros and cons of the potential courses of action. The alternatives should also be examined for consistency with the goals and policies described in the previous section of this Issue Paper.

The alternatives need not be mutually exclusive and ultimately the decision makers may choose to consolidate ideas from more than one scenario. Further, it must be kept in mind that decisions concerning community development will have an impact on alternatives identified for natural resources and public safety, and vice versa, requiring alternative futures in all three areas to be reviewed and absorbed prior to final decision making.

The General Plan Guidelines recommend that each alternative be evaluated for its short-term and long-term environmental, economic and social effects. This Issue Paper uses the suggested format, to the extent it is applicable to community development issues. Evaluation of the environmental effects of each alternative will also form the basis for evaluation of project alternatives pursuant to the California Environmental Quality Act, at such time as the EIR for the General Plan is prepared.

The role of Glenn County and that of its cities is also explored. Community development is a responsibility shared with incorporated cities. City and County practices can lead to coordinated efforts which place a high priority on orderly and planned growth, or can lead to a competitive atmosphere in which planning takes a back seat to short term opportunities to capture revenue

producing activity, often at the expense of the neighboring jurisdiction. Counties can also opt to minimize their involvement in the community development realm, directing future growth to the incorporated cities.

In addition to the three scenarios concerning community development, Section 7.3 contains three additional scenarios focusing on and contrasting economic development potentials. This has been done in order to emphasize the importance of economic development in the Glenn County planning process.

7.1 Scenarios

It is generally most illustrative to tie different scenarios for community development to differing rates of growth. Typically low, medium and high rates of growth are described. In addition to rates of growth, another approach which suggests itself examines patterns of development, ranging from direction of virtually all growth to the two incorporated cities to a scenario which spreads growth evenly between various established and future communities. A plausible scenario which also bears consideration is a distribution pattern which emphasizes growth in the northern county with a slower rate of growth in the southern county area. Finally, a scenario which should be discussed is one which directs growth to foothill areas, away from the higher value agricultural lands. These various approaches to growth distribution will be discussed under the three primary scenarios, as appropriate.

Three rates of growth will be utilized for purposes of this analysis. For the low range, an annual growth rate of 1.5 percent will be used. This rate of growth is similar to the annual average rate of growth in Glenn County during the decade of the 1980s and is similar to the annual average increase utilized in the 1991 Glenn County Profile prepared by the California State University, Chico, Center for Economic Development and Planning. A rate of growth of 3 percent will be assumed as a mid-range based on the actual rate of growth during the past three years. Finally, for comparison purposes, an annual average rate of growth of 5 percent will be assumed for the high end.

Alternative 1CD

Description

Alternative 1CD assumes an annual average rate of growth:1.5 percent of 1.5 percent which would result in a countywide population of approximately 34,500 people by the year 2012, or an increase of 9,200 people over the 20 year life of the Plan. This projection makes no distinction between incorporated and unincorporated area. If we assume that a constant 55.5 percent of the countywide population will continue to reside in the unincorporated area (as was the case in 1991), then unincorporated population would increase by approximately 5,100 people with the balance of the growth occurring in the two cities. Of course, decisions made during the General Plan process will determine whether unincorporated growth increases or decreases as a percentage of total county growth. As noted above, the County may choose to direct greater

amounts of growth to the incorporated cities or to direct growth away from the incorporated cities to existing and future unincorporated communities, including communities in the foothills.

The absorption of 5,100 people is a relatively modest undertaking by California standards. However, in the context of Glenn County, it will be the equivalent of adding the City of Willows to the county landscape. It is most likely that such growth will be spread between Hamilton City (due to the Chico influence), the fringes of Willows and Orland, and potential planned communities along I-5, including Artois. It is unlikely that growth of any consequence would be shifted to the foothills due to the lack of services and other infrastructure, and due to the limited demand created by this relatively modest growth scenario.

The rate of growth described under this scenario would create a demand for 1,500 to 2,000 additional jobs. Although commuters to the Chico area could be a substantial factor, the County will need to emphasize job creation and opportunities for industry to locate in the county, in order to avoid a continuation of an historically high unemployment rate and a growing public assistance burden. It is assumed that agriculture will continue to dominate the local economy.

Based on 1990 Glenn County household size the added population will also generate a demand for approximately 1,800 housing units in the unincorporated areas with an additional 1,450 units required in the two incorporated cities. Again, this assumes current conditions in terms of household size and distribution of population between cities and the unincorporated area.

Discussion

Although Glenn County's infrastructure is limited, it is likely that service providers could meet the demands suggested by this scenario and that financing mechanisms could be created which would allow the County to capture the cost of infrastructure and services brought on by additional development. Of concern is whether such a modest rate of growth will allow the county to attract development of sufficient scale and quality to be able to spread the cost of amenities and environmental protections suggested during the planning process, including buffer areas, open space, general upgrades in public services, and attraction of a greater array of retail shopping opportunities.

The environmental impacts of this potential scenario will be modest. Fewer than 100 housing units a year will be required to meet the demand. This, coupled with the range of opportunities available within the county for housing development, will permit the selection of sites with limited impacts on agricultural lands and natural resources. Total acreage needed to accommodate the projected growth should not exceed a thousand acres, assuming relatively compact growth patterns. Emphasis on growth in the Hamilton City area does, however, require close attention to the effects of flooding on development, and the impact such development may have on groundwater recharge areas through overcovering and potential degradation of groundwater quality.

Impacts on air quality and transportation facilities will occur, although the rate of growth should not result in significant impacts; however, there will be cumulative impacts which must

addressed through expansion of alternate modes of transportation. This will dictate a higher density development pattern and a need to locate development along major transportation corridors, such as I-5 and Highway 32. Some sections of Highway 32 are approaching unacceptable levels of congestion. Growth, even of a modest nature, will dictate improvements to the present facility.

From an economic perspective, growth will improve present conditions, if handled properly. As noted above, however, it is questionable whether the modest rate assumed in this scenario will be significant enough to measurably alter conditions during the 20 year period, particularly if it is assumed that commuting to Chico for jobs and shopping may intensify.

Social effects include a broadening of job and housing opportunities. Increased activity could have some effect on the County's social service burden but again, the rate of change is relatively modest and may have little effect. A comparison with the County's projected "fair share" of the regional housing needs as reported by the Tri-County Area Planning Council reveals a greater numerical need in Glenn County for housing over the next five years than will be constructed under this alternative. As an example the fair share allocation predicts 661 housing units are required, while this alternative is premised on fewer than 500 units being constructed over a five year period. If the Tri-County Area Planning Council numbers are used in the General Plan, adoption of this alternative would lead to inconsistencies within the text of the General Plan.

As noted under Section 2.2.1 of this Issue Paper, the cities of Orland and Willows have projected their populations to the year 2010. Taken together, the cities are anticipating a population increase of 11,041 persons by 2010. Assuming the cities are correct, a 1.5 percent rate of growth underestimates future growth impacts on Glenn County.

Alternative 2CD

Description

The second alternative assumes a rate of growth:3 percent of 3 percent per year resulting in a countywide population of approximately 47,000 people. This is an increase of 21,700 persons by the year 2012. Although this may appear high in the context of Glenn County, it is not unrealistic based on growth trends and projections in growing areas of California and is consistent with Glenn County's rate of growth during the past three years. For comparison purposes, the City of Willows assumes a growth rate of 2 percent while Orland is looking to a growth rate as high as 5 percent. As is the case with Alternative 1CD, no distinction is made in this figure between incorporated and unincorporated area population. Taking such a split into consideration and using the same assumption (55.5 percent unincorporated population) as in 1CD, approximately 12,000 additional people would reside in the unincorporated area, while the two cities would gain another 9,700 persons. A decision on the amount of growth to direct to unincorporated areas must be made prior to formulating the General Plan, and projecting areas necessary for growth. As noted under Alternative 1CD, the two cities are anticipating a planned increase of 11,041 people, or slightly more than 50 percent of the projected growth.

The accommodation of 12,000 additional people in the unincorporated area will be a much greater undertaking than that described in Alternative 1CD. Again, it is assumed that much of the growth will be concentrated in the Highway 32 corridor and to a lesser degree in the vicinity of Willows and along I-5. The amount of growth suggested by this scenario may be sufficient to generate interest in foothill development, if infrastructure and service costs are addressed through Mello-Roos or other assessment district financing.

The demand for new jobs generated by this scenario will approach 5,000. Again, commuting to Chico may partially offset in-county demand for jobs. If the county determines to utilize a 3 percent rate of growth for General Plan development purposes, it is obvious that the Plan must contain a strong strategy for job creation and economic diversification. If not, the county could end up with a substantial unemployment problem and social service obligation. Agriculture's role in the overall economy will be somewhat diminished under this scenario but will remain dominant.

More than 4,000 additional housing units will be required in the unincorporated area under this scenario in order to meet demand, and an additional 3,500 housing units will be required within the two cities. Acreage necessary to accommodate unincorporated area growth will be in the range of 2,000 acres, although this cannot be determined with any precision until densities are established along with other standards for development. Urban limit lines and other growth areas must be able to accommodate the projected population and must be shown on the land use diagram.

Discussion

The type of growth anticipated by this scenario will have a considerable impact on the county and will change the character and scale of present communities. It will require a concerted effort to upgrade and expand infrastructure and services. In order to be able to generate the dollars necessary to pay for costs to County government, a financing plan must be in place which requires developers and future residents to pay for these costs. In addition, the County must be careful to assure that jobs and other revenue generating activities accompany housing and that the county does not simply become a cheap place for people to live, who work and shop in the incorporated cities and adjoining counties.

At least 200 housing units will be needed each year under this scenario. This should not present a substantial burden to the County if properly planned for, including a government service financing plan, and use of urban limit lines to control scattered growth. Approximately twice the acreage will be needed for development under this scenario as the first, however, adequate sites are available without undue impact on other activities. In the Hamilton City area and elsewhere, larger areas subject to flooding or utilized for groundwater recharge will become subject to development pressure. Air quality and transportation impacts will increase, and considerable attention must be given to jobs/housing balance and alternative transportation to reduce commutes and the resultant impacts on air and roads. Planning should focus on greater utilization of the I-5 Corridor where sufficient capacity exists for additional trips.

The assumed rate of growth will generate considerable in-county economic activity over time, if the county can capture the jobs and retail sales that accompany such growth. The rate of growth will not, however, create a "boom" environment, as it remains relatively modest by most measures.

Social effects will include a broadening of job and housing opportunities as in Alternative 1CD. In addition, growth should be brisk enough to attract larger scale development that can afford to include some of the amenity and features desired in new development, particularly those that protect and enhance the environment. Growth of this scale will undoubtedly have some positive effect on the County's social service burden as new opportunities for housing and employment arise.

Alternative 3CD

Description

The final scenario assumes a growth rate of 5 percent. This is comparable to the growth rate assumed by the City of Orland for a similar planning period and is not out-of-line with rates of growth occurring elsewhere in the State, although maintenance of such a growth rate over a 20 year period is problematic. Approximately 43,000 people could be added to the county's population base under this scenario, bringing the countywide population to approximately 68,000. If the unincorporated area share is assumed to be 55.5 percent of the total, 24,000 people could be added, tripling the population of the unincorporated area. The amount allocated to the two cities under this scenario exceeds present projections for the two communities by several thousand people.

This scenario must assume that substantial improvements will be made to Highway 32, including bypasses for Orland and Hamilton City. As in Alternative 2CD, it may be desirable to focus development along I-5, and to look to a large integrated development in the foothills. The amount of growth suggested should justify serious consideration of a foothill alternative and should make financing of infrastructure and services feasible.

As many as 10,000 additional jobs could be required over the life of the Plan to provide in-county employment opportunities. Butte County may partially fill this need if job generation is not actively pursued in Glenn County, leaving the County with service burdens and inadequate income to cover its costs, resulting in little direct benefit to the County from the growth. Agriculture's dominance in the local economy will be diminished considerably under this scenario; however, the actual amount of land required for development should be less than 4,000 acres, leaving substantial acreage available for agricultural production. This acreage calculation does not include land necessary for development within the two cities.

Approximately 8,500 new housing units will be required to meet demand in the unincorporated area, necessitating careful planning and regulation of growth to assure that substantial problems are not created and the county left in a deficit position. An additional 7,000 housing units will be required within the two cities.

Discussion

Approximately 425 housing units must be added in the unincorporated area each year to under this scenario to keep pace. This is more than twice the number presently constructed. The scale of growth depicted by this scenario will have a significant effect on present communities and will generate considerable demand for establishment of new development areas along I-5 and, perhaps, in the foothills. The need to plan properly and to upgrade and expand infrastructure will be magnified, as will the need to assure jobs/housing balance in the county. Unincorporated growth will consume approximately 4,000 acres of land presently devoted to other uses and incorporated growth will require another 3,000 acres.

As with other scenarios, it is likely that growth will focus along Highway 32 and I-5, resulting in severe traffic problems without Highway 32 upgrades. Air quality problems will be magnified and alternative transportation systems will be a necessity. Again, the conflict with areas which flood and with groundwater recharge areas will be magnified. Conflicts over resource use within the county will undoubtedly arise as the nonfarm related population requires more water, more land and worries more about the impacts that agricultural practices have on the environment. Political power will shift away from agriculture and will rest with newer residents of the area with few ties to agriculture. Commuting to Chico will be prominent, regardless of the County's efforts to create jobs due to the presence of the University, and the fact that growth and activity in Chico will undoubtedly accelerate along with the acceleration in Glenn County.

A great deal of economic activity will be generated by this scenario; however, it may be of the boom and bust variety since the county may not be able to sustain the level of activity described on a constant basis. Considerable speculation in raw land will occur, harming agriculture and impeding its continuation in some instances.

As with other scenarios, social effects include a broadening of job and housing opportunities. However, the boom and bust potential could result in overbuilding accompanied by layoffs and considerable unemployment. Schools and other service providers will have difficulty keeping up, leading to overcrowding and less than optimum conditions. The pace of growth will result in the attraction of large scale and fully integrated developments that will improve the quality of development and will allow for features and amenities only possible in large scale undertakings. This, of course, assumes the County has plans and standards in place which give developers clear guidance as to what is expected. Because of the substantial population growth, the county's retail mix will be greatly enhanced, keeping more shoppers at home.

7.2 Role of County vs. Cities

Important decisions lie ahead for the County in the area of County role versus the roles of Orland and Willows. As alluded to under the alternatives discussion, the County could choose to adopt a "no growth" plan for the unincorporated areas around the two cities, allowing development only upon annexation to the city. This would avoid the necessity to develop County-owned and maintained infrastructure and to provide urban services in competition with the two cities. At the other extreme is the absence of coordination and general competition with cities for

development, frequently leading to land developers playing one jurisdiction off against the other. An approach that should also be discussed between the County and the cities is the concept of sharing of taxes from new development, if there is interest in diminishing the County's development role.

The role of the County should be carefully thought out and prescribed in the General Plan. The goals and policies portion of this Issue Paper lays the foundation for this work through the urban limit line concept and by tying policies on County versus city responsibility to those lines.

It is unlikely that Glenn County can avoid being in the urban service delivery business, even if it desired such a course of action, due to the considerable growth pressures that will be experienced during the term of the General Plan in the Hamilton City area and elsewhere. Special districts can, of course, deliver some basic services. It is likely, however that the districts, where they exist, will require support and assistance from the County. In addition, the County must still typically deliver planning and building services, road maintenance, storm drainage and law enforcement. Given that the County will be required to deliver urban levels of service in parts of the county, it is assumed that the County will not wish to preclude that option in proximity to the two incorporated cities.

In regard to the larger issue of whether the County should be in the urban development business at all, reality dictates that it must. Growth pressures in the Hamilton City area and along I-5 will not be deterred by the County's reluctance to participate. In addition, financial survival of County government requires that it actively court enterprises which generate revenue to the unincorporated county area and its residents. This was not always true, but the structure of government finance has changed radically during the past fifteen years, making it exceedingly difficult for a resource-based county to adequately fund county government, without diversification.

The Plan should provide a framework in which the County can share generously in future residential, commercial and industrial development opportunities, recognizing that this requires a commitment on the part of the County to develop its service capacity and to aggressively pursue new service delivery structures and financing mechanisms. As noted above and in the other two Issue Papers, it also requires that a course of action be worked out with the two cities, and incorporated into the General Plan, if unnecessary inefficiencies and conflicts are to be avoided.

7.3 Economic Scenarios

Three economic scenarios suggest themselves as potentially worthwhile to consider and speculate about during the Plan preparation process. Each represents a prospective approach to economic development by the County over coming years, and each has different implications for the probable intensity and direction of economic growth which the county might experience.

Alternative 1ED anticipates a condition under which the County deemphasizes economic development in proportion to other land use and planning priorities and, in fact, discourages growth. Alternative 2ED is presented as a laissez faire County position with respect to economic development and growth, including provisions to accommodate economic expansion and further development, but incorporating no overt County initiatives to encourage such activity.

Alternative 3ED presents the County as an active participant in, and supporter of, economic expansion and the promotion of additional local economic development.

Each of the referenced alternative scenarios is described and discussed conceptually in the following paragraphs.

Alternative 1ED

Description

Under this alternative, the County would adopt an emphasis in its planning policy framework which discourages additional growth in Glenn County and its various communities. Throughout California, and Glenn County is not exceptional in this particular regard, there is increasing concern by many residents and interest groups that the State's very rapid growth in recent years has severely taxed the capabilities of our public institutions and of society as a whole to provide adequate public services and sustain a desirable quality of life. Growth projections for California fuel such concerns, since forecasted immigration and birth rates continue to place California growth, and the growth of many of its rural areas in particular, near the top of the national profile for population expansion.

Glenn County, under Alternative 1ED, would withdraw funding and technical support for, and would discontinue participation in, established local economic development and business promotion programs (e.g. the Tri-County Economic Development Corporation, Glenn Chamber of Commerce Economic Development, Inc.). No new economic development initiatives would receive County support, and overtures from outside agencies, such as the State Department of Commerce and/or private business interests, would be discouraged.

County land use designations and development policies included in the General Plan would reduce to the maximum extent possible the availability of sites in the unincorporated area upon which non-agricultural uses could be established. Some downzoning of existing commercially and industrially-designated properties not yet developed would occur. Policies applicable to the placement of dairies and other agriculturally-based new industries would be narrowed to discourage the relocation of such facilities to Glenn County. The CEQA review process would be applied to the fullest extent possible to identify, establish and emphasize concerns which might discourage new business development in the county.

Emphasis on the preservation of the county's natural resources and open lands would take precedence over other land use policies. Urban limit lines around the incorporated cities and unincorporated communities in the county would be established and rigorously enforced to restrict land availability for new development.

Discussion

Alternative 1ED might be characterized as the representation of the "no growth" philosophy. Throughout California, this philosophy has found its voice in recent years among residents and

citizens fearful that the historic influx of population and business into the State has compromised the ability to support even basic public services and has contributed significantly to virtually irreversible environmental damage. No-growth initiatives proliferated on the ballots of many jurisdictions in the late 1980's, with mixed results. California's growth-related challenges have become a central focus for both the executive and legislative branches of California State government.

It can be concluded without dispute that a "no growth" posture by the County would discourage virtually any significant industrial, commercial or other economic development in Glenn County. There are literally several thousand localities throughout the western United States aggressively and proactively recruiting new business development and operating under policies which accommodate and encourage such development. Moreover, in the current recessionary environment, and given a perception, whether true in proportion to its described magnitude or not, that California is an anti-business state, the number of new or expanding business opportunities which might otherwise be attracted to Glenn County is limited somewhat to begin with. It is highly unlikely, therefore, that appreciable new industry or business would locate in Glenn County under this alternative.

As discussed in the Natural Resources Issue Paper, the establishment of a policy framework corresponding to Alternative 1ED would achieve benefits to the Glenn County environment. The County's natural resource base would be protected from the effects of development and the extent of lands committed to agricultural uses would not be jeopardized by encroaching non-agricultural development. Current residents who oppose any significant perceivable change in the conditions and character of their communities and the county in general would not be exposed to those changes typically accompanying population growth.

Offsetting such benefits and perceived advantages, however, would be the persistence of comparatively high unemployment in Glenn County, of the county's low family and per capita income levels, of the substantial portion of the county's population dependent upon public assistance programs to subsist, and of the increasing difficulty of financing basic, essential public services with proportionately diminishing fiscal resources at the County and city levels. Quality of life in Glenn County, if viewed in terms of economic access to goods and services and to a corresponding standard of living, would gradually diminish under this alternative. Moreover, many services and amenities identified by Glenn County residents as desirable but lacking in the county would not be likely to evolve over time.

Arguably, the no growth approach to the issue of economic development in Glenn County offers net benefits to some segments of the county's population -- their environment and lifestyles would not be altered from existing conditions currently satisfactory to them -- and to the general population of California and the broader region as a whole -- vast open spaces and agricultural lands would remain largely unaffected as aesthetic and productive amenities. At the same time, substantial portions of the county's population would suffer increasing economic and social hardship under this alternative, ultimately compromising the quality of life for virtually all county residents.

Alternative 2ED

Description

This alternative would create a policy framework in Glenn County which was accommodating toward economic development activities and business expansion; however, it would not provide for active County participation in, or support of, economic development initiatives and programs. Given limited County resources, Alternative 2ED as a General Plan policy approach effectively would say, "We welcome new business and economic growth here in Glenn County. If new business or industry wants to come here, we'll accommodate them. If you want to go out and recruit those businesses and industries, we'll be the first to wish you good luck. Just don't ask us for money or other material assistance, because we can't provide it."

Under this alternative, Glenn County would adopt land use and development policies, and General Plan and zoning designations, favorable toward new commercial and industrial development. Sites along I-5, near the airports, in Hamilton City, and elsewhere when surrounding conditions and infrastructure potential would render such uses feasible and appropriate would be targeted for industrial and commercial development. Private sector initiatives for such development would be received favorably by the County and the creation of employment or tax-generating land uses would be encouraged and facilitated by staff cooperation and decision-maker support.

The County would nominally support Glenn Chamber of Commerce Economic Development, Inc., the Tri-County EDC and other economic development programs and activities, but would not contribute funds, technical support or other material assistance. A perception that the County was actively involved in economic development or business recruitment would be avoided.

No other potential County investment in infrastructure improvements, recreational facilities, planning efforts or other activities which would encourage business and economic development in Glenn County would be made. The County's approach to economic development would, under this alternative, be strictly reactive, with no proactive component.

Discussion

Even blind squirrels occasionally find acorns, it has been said, and under Alternative 2ED, Glenn County may find the occasional project materializing which helps boost the local economy. The efforts of The Tri-County EDC, Glenn Chamber of Commerce Economic Development, Inc., the State of California and others to promote local economic development would inevitably attract some new business activity to the county and its communities, even without active County support. County commitment, and even County funding, are invaluable assets to local economic development efforts and initiatives, however, and their absence would certainly somewhat compromise the extent and potential effectiveness of such programs, in proportion to their capacity to succeed with such County support.

Under this alternative, it is possible that some inroads would be made to address the existing high countywide unemployment rate and the seasonal fluctuations in employment and income generation. It should be acknowledged that some growth in population and corresponding increases in traffic, housing demand and other environmental impacts would occur as well. So, too, would demands for municipal and County services be likely to increase, potentially without offsetting increases in local government revenues to help fund the costs of such services.

Given current trends, it seems likely that an outcome of the approach represented by Alternative 2ED would be continuing expansion of housing in Glenn County, given its comparative affordability, to support households of persons employed in nearby Chico. The acknowledged liability of a jobs/housing ratio imbalance of the type which would potentially evolve under such a scenario is the service requirements of residential land uses with disproportionately small revenue-generating capabilities to pay for those services under existing local financing structures.

Alternative 3ED

Description

Alternative 3ED would provide for Glenn County to continue and expand its role as an active participant in and supporter of the local and regional economic development processes. Under this alternative, the County would establish a pro-economic growth policy framework in its General Plan, giving reasonable priority to employment-generating land uses over natural resource preservation, agricultural land utilization and other environmental concerns. The County would also contribute funding and staff resources to active economic development programs and initiatives operating on behalf of Glenn County and the region.

General Plan and zoning designations would establish sites for employment-generating commercial and industrial land uses at appropriate key locations, such as along I-5, at the airports, in or near Hamilton City, and at other sites where infrastructure and other factors indicate feasibility. The County would seek and implement public improvements (e.g. road improvements, wastewater disposal, etc.) supporting commercial and/or industrial development.

County officials would actively participate in the activities of Glenn Chamber of Commerce Economic Development, Inc., the Tri-County EDC and other local and regional economic development and business promotion organizations. County funding support, and technical assistance from County staff, would be provided at appropriate and affordable levels to such organizations. County contact with the State Department of Commerce and other outside agencies would be established and maintained to ensure that Glenn County stays "in the loop" on regional and Statewide business development opportunities.

Processing of applications for employment-generating projects and new businesses by the County would be expedited by County staff through the decision-making hierarchy. Staff would afford project applicants with whatever technical assistance in formulating application materials as might be feasible and reasonable.

The County would, through its own day-to-day operations, promote local business, in the form of local procurement of goods and services whenever possible, in the form of a cooperative regulatory enforcement environment, and through the provision of adequate public services.

This alternative can best be characterized as a very proactive County approach to economic development, with the County as a key player in local economic and business development initiatives and projecting a pro-growth and pro-business attitude.

Discussion

At least in its intent, Alternative 3ED is the approach under which the greatest amount of new industrial and business development would occur in Glenn County. To the extent that such development were to be induced, the county would experience the inevitable related consequences of growth: new population, conversion of open and agricultural lands to urban uses, increased demands for public services, traffic, and other typical outcomes of development projects. Accompanying such development, however, should also be more jobs for county residents, less seasonal fluctuation in employment, more disposable income to put back into the county's economy, and more tax revenue available to meet growing public service demands.

A proactive County government and an active and competent economic development program, however, are not enough to ensure that industrial growth and business development in Glenn County will take place. Economic development and business recruitment occur in a highly competitive environment throughout rural California, and the number of new or expanding businesses which might locate in California is small in proportion to the number of jurisdictions and geographic regions which would welcome them. The experience of other communities and counties throughout the State, though, has been that active and effective local business recruitment and business retention programs, in a pro-business environment, are far more successful in generating economic expansion, with its corresponding benefits, than are those areas who are anti-growth or laissez faire.

Consequently, to the extent that Glenn County places a policy priority on successful economic expansion for the benefit of county residents, experience suggests that the proactive and committed approach represented by Alternative 3ED would be required to achieve the County's economic objectives.

GLENN COUNTY GENERAL PLAN

VOLUME III - SETTING

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SECTION 1 - ENVIRONMENTAL SETTING

1.0 INTRODUCTION

This document contains background information compiled for the Glenn County General Plan. It describes the existing conditions which apply to all the subject areas to be addressed in the Plan, and also served as the "environmental setting" portion of the Environmental Impact Report prepared for the General Plan. This document is organized to correspond to the major subject headings for issue papers to be prepared for the General Plan: Natural Resources, Public Safety, and Community Development (which includes an economic profile of Glenn County). There is also a section describing the relationship of other plans adopted by the County and other agencies to the General Plan.

Glenn County, California, is located in the northern Sacramento Valley and the eastern foothills and mountains of the Coast Range, approximately 80 miles north of the City of Sacramento, as shown on Figure 1-1. The county encompasses approximately 1,317 square miles and extends from the Sacramento River west to the Coast Range. Located in Glenn County are the cities of Willows and Orland and the unincorporated communities of Hamilton City, Ord Bend, Artois, Elk Creek, Butte City, West Orland, and Glenn, and numerous other small settlements.

Portions of this document were excerpted from the Environmental Resources and Energy Technologies-Draft Environmental Setting document prepared for Crawford Multari & Starr by Fugro-McClelland (West) Inc., for the Energy Element of the Glenn County General Plan. Maps provided by the same source are so credited in addition to the primary source.

2.0 NATURAL RESOURCES

2.1 EARTH

2.1.1 Topography

Glenn County topography is typified by steeper terrain in the western portion of the county trending down to relatively flat features along its eastern boundary. Two major geologic provinces exist within the county and have a major influence on the county's topography. They are the Sacramento Valley which generally characterizes the eastern third of the county, and the Coast Range which dominates the western two-thirds.

The Sacramento Valley consists of nearly level terraces, smooth alluvial fans, narrow flood plains and water filled basins. Elevation ranges from approximately 100 feet above mean sea level (MSL) at the Sacramento River to approximately 300 feet above MSL at the western edge of the Valley, west of Interstate 5. A small portion of southeastern Glenn County, in the vicinity of Butte City, is located east of the Sacramento River. This is essentially an area of level flood plains and basins with little discernible slope. (Department of Water Resources, Sacramento Valley Bulletin 118-6, 1978).

West of the Valley province is the Coast Range, which can be further subdivided into the rolling terrain of the Coast Range foothills which increase in elevation from the easterly edge of the

Valley to approximately 2,000 feet, and the mountainous Coast Range which rises to an elevation of almost 7,500 feet above MSL at Black Butte Mountain. The foothills consist of smooth, rolling to steep hills and narrow valleys with distinct areas of south to north drainage. Much of the mountainous region to the west of the foothills ranges above 6,000 feet and includes a portion of the crest of the Coast Range. (Glenn County Planning Department, Conservation Management Element, 1986).

2.1.2 Geology

Glenn County is located within portions of two California geomorphic provinces: the Coast Range and the Great Valley. Each province has a distinctly different geologic history which, coupled with local climatic conditions, has resulted in a wide variation of geologic conditions within the county.

Similar to the county's terrain, rock types can be broadly divided into three different units which increase in age from east to west (Figures 2-1 and 2-2). In the east, geologic materials consist primarily of unconsolidated Pleistocene and Recent sediments (Qal) including alluvial fan deposits, stream channel deposits of the Sacramento River and inland basin deposits. Exposed at the lower elevations of the foothills are Tertiary sediments, primarily consisting of Pliocene sediments with some continental volcanics. At the higher foothill elevations, exposed outcrops are Cretaceous and Jurassic marine and non-marine sedimentary rocks, while the western mountainous region of the county is formed mainly of deformed Jurassic marine sediments and volcanics (J.Robinson, 1991) (Fugro-McClelland (West) Inc., 1991).

2.1.3 Soils

The soil types in Glenn County can be divided into five general land categories (USDA, 1986) which are determined by physiographic position, soil texture, soil profile, and slope. These land categories include:

- **Mountain Soils.** The soils in the mountains are shallow to deep, well drained to excessively drained, and mostly steep to very steep.
- **Soils of the Foothills.** In the foothills the soils formed mainly in material from hard, unaltered sedimentary rock of the Knoxville formation, and of other formations of the Cretaceous period, and from poorly consolidated siltstone of the Tehama formation.
- **Soils of Older Alluvial Fans and Low Terraces.** Soils of older and low terraces are well drained to somewhat poorly drained and are mostly moderately permeable to very slowly permeable.
- **Basin Soils.** The soils of the basins are in the southwestern part of the county. Soils of the basins are characteristically fine textured and poorly drained. Slopes are nearly level, and runoff is very slow.
- **Soils of the More Recent Alluvial Fans and Flood Plains.** Most of the soils on the more recent alluvial fans and flood plains of the county are along Stony Creek and the Sacramento

River. The soils generally consist of shallow to deep, well-drained to excessively-drained gravelly and non-gravelly stratified material (Fugro-McClelland (West) Inc., 1991).

2.1.4 Agricultural Resources

Agriculture is the most extensive land use in Glenn County and the most significant component of the county's economy. Two-thirds of Glenn County's 1,317 square miles are comprised of agricultural croplands and pasture. Croplands are found in the areas of prime agricultural soil in the eastern third of the county along the floodplain of the Sacramento River. In 1989, there were approximately 229,400 acres of irrigated land in the county (State of California Department of Water Resources, Northern District, Glenn County Agricultural Water Use 1989). Grazing lands are found primarily in the central foothills and to the west in the Glenn County portion of the Coast Range. Livestock grazing also occurs in the Mendocino National Forest. The land that is now devoted to agriculture in the county was historically covered by native grasslands and riparian forest.

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) maintains inventories of important farmland within California. Table 2-1 shows the 1988 FMMP inventory of land within Glenn County, and Figure 2-3 shows the approximate locations of such important farmlands. Owners of much of the County's agricultural land currently take advantage of the property tax advantages offered by the Williamson Act (California Land Conservation Act), which reduces such taxes on qualifying agricultural land in exchange for a commitment from the landowner to not develop the land with uses other than those compatible with and supportive of agriculture. Figure 2-4 shows the general location of lands under Williamson Act contract.

Table 2.1-1

AGRICULTURAL LANDS IN GLENN COUNTY - 1988

Land Use Category	Acres
Prime Farmland	173,565
Farmland of Statewide Importance	91,185
Unique Farmland	12,080
Farmland of Local Importance	136,186
Grazing Land	173,509
Urban Built-Up Land	5,190
Other Lands	253,587
Water Area	4,226
TOTAL	849,528

Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1988.

Prime farmland has the best combination of physical and chemical characteristics for crop production. Farmland of statewide importance is not as productive as prime soil, though it still has supported crop production for at least the three preceding years. Unique farmland ranks below prime and statewide important farmlands, though it is still capable of producing "high economic value crops" such as olives, avocados, or grapes. Finally, farmland of local importance ranks below the other three, yet "may be important to the local economy due to its productivity" (Department of Conservation, Important Farmland Map Categories).

In general, rice is grown on the heavier, less porous soils that are found in the southern part of the county; almonds, prunes, and walnuts on well drained soils in various areas. Olives and other tree crops can be grown on more limited soils, including gravelly soil types, with low volume/controlled irrigation; alfalfa for hay can be grown on a variety of soils with proper management of irrigation and variety selection. Wheat is a rotation crop on irrigated lands used also for sugar beets, corn, beets, and alfalfa. (Pers. comm., Bob Sailsberry, University of California Cooperative Extension, July 15, 1991.)

The Glenn County Department of Agriculture publishes information on annual agricultural production within the county. Table 2-2 shows the past ten year production acreage for the most important crops in the county. Table 2-3 shows the valuation of agricultural production for the same period.

With the exception of range land acreage, rice is by far the largest crop in both production acreage and valuation. In 1990, rice accounted for more than one-fourth of total agricultural value generated in the county. Almonds, prunes, and alfalfa hay are also large cash crops; each accounted for more than \$10 million in value in 1990. It is important to note that both agricultural production and its value vary significantly from year to year. This can be due to a variety of factors including climatic variations, rainfall, and market conditions.

2.2 CLIMATE

Glenn County is located within the west central portion of the Sacramento Valley Air Basin (see Figure 2-5). The Sacramento Valley Air Basin is characterized by mountain ranges to the north, east, and west. Surrounding topography greatly influences wind patterns in Glenn County. Ventilation is commonly inadequate due to calm winds and continual temperature inversions. The combination of inversions, light winds, and constrictive topography results in air being trapped horizontally and vertically during much of the year.

The County's climate is generally Mediterranean with hot dry summers and moderate to cool wet winters. Average daily maximum temperatures range from the mid-fifties in January to the high nineties in July, and average daily minimum temperatures range from the mid-thirties in January to the mid-sixties in July. Nearly 90 percent of the County's annual rainfall occurs between November and April, usually from frontal systems from the west. During the winter, snowfall in the valley is infrequent and only in trace amounts. Totals increase to the west, reaching 4 to 8 inches on the lower slopes of the mountains. Normal annual precipitation across the county varies widely, from 15 inches in the southeast to as much as 50 or 60 inches at the highest elevations (Elford, 1961). On the valley floor, the City of Willows receives approximately 17.7 inches per year.

Table 2.2-1

GLENN COUNTY - ACREAGE IN AGRICULTURAL PRODUCTION

COMMODITY	1981	1982	1983	1984	1985	1986	1987	1989	1990
FIELD CROPS									
Barley	7,144	7,355	5,000	4,500	6,250	5,000	4,000	3,527	2,369
Beans	8,777	8,287	699	7,703	3,737	6,838	9,370	6,307	6,187
Corn	8,771	7,152	5,000	7,800	8,100	6,000	5,500	7,366	7,085
Hay - Alfalfa	15,000	16,500	16,500	16,500	16,500	18,150	18,150	18,150	17,095
Hay - Other	3,000	2,700	1,890	1,500	1,250	1,350	1,250	1,150	977

Pasture - Irrigated	22,000	22,000	22,000	22,000	19,500	16,575	16,575	16,575	16,575
Range	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000
Rice Paddy	89,000	79,500	56,000	65,124	63,364	59,335	59,818	69,470	62,919
Safflower	3,598	1,775	1,740	1,574	NA	NA	NA	NA	NA
Silage	3,000	3,125	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Grain - Sorghum	3,422	3,887	2,000	2,700	3,500	2,000	1,500	2,088	1,600
Sugar Beets	6,400	6,500	4,748	6,733	7,606	7,844	9,515	8,933	9,598
Wheat	44,776	28,735	22,000	25,000	38,000	30,000	27,000	28,845	33,376
Miscellaneous	NA	1,183	650	859	2,593	3,525	2,735	2,940	2,050
TOTALS	454,888	428,699	381,227	404,993	413,400	399,617	398,413	408,351	402,831
SEED CROPS									
Alfalfa	NA	NA	NA	1,107	1,155	NA	500	482	612
Beans	NA	NA	NA	2,173	1,940	1,562	2,354	2,783	2,584
Clover	2,115	2,489	2,730	4,004	4,327	4,687	5,293	4,207	3,991
Rice	NA	2,581	2,012	2,125	1,100	1,897	1,473	1,972	2,195
Safflower	NA	NA	NA	NA	NA	NA	NA	300	NA
Sudan	NA	350	475	NA	NA	NA	NA	958	NA
Sunflower	1,945	2,456	3,469	3,793	7,114	5,672	1,883	1,860	2,266
Vine Crops	2,045	1,328	1,895	2,179	1,743	1,655	2,399	1,813	1,999
Wheat	NA	NA	NA	1,459	NA	NA	NA	835	838
Other Seed	8,574	3,785	6,780	1,951	1,297	829	881	622	1,632
TOTALS	14,679	12,989	17,361	18,791	18,676	16,302	14,783	15,832	16,117
FRUIT AND NUT CROPS									
Almonds	8,856	9,083	10,240	11,766	12,004	14,299	14,368	14,599	14,659
Citrus	NA	950	930	938	906	912	920	889	900
Olives	1,692	1,753	1,769	1,774	1,835	1,796	1,800	2,150	2,150
Prunes	4,580	4,688	4,862	5,042	5,278	5,805	6,408	7,108	7,229
Walnuts	4,292	4,473	4,565	4,585	4,656	5,765	5,773	5,470	5,681
Misc. Fruits & Nuts	NA	989	1,328	1,310	1,543	1,261	1,448	1,781	1,377
TOTALS	19,420	21,936	23,694	25,415	26,222	29,838	30,717	31,997	31,996
FOREST PRODUCTS									
Timber (1,000 bd. ft.)	NA	18,517	8,786	24,658	41,284	33,557	33,801	29,200	36,947
Firewood (cords)	NA	3,414	3,062	1,166	967	770	2,211	531	3,402
Christmas Trees	NA	2,100	3,351	6,608	3,944	1,002	2,423	600	3,558
TOTALS	NA	24,031	15,199	32,432	46,195	35,329	38,435	30,331	43,907

Source: Glenn County Department of Agriculture. Annual Crop and Livestock Report for years 1981 - 1990.

Table 2.2-2

**TABLE 2-3
TOTAL VALUE OF AGRICULTURAL PRODUCTION
(1,000s of dollars)**

COMMODITY	1981	1982	1983	1984	1985	1986	1987	1989	1990
FIELD CROPS									
Barley	\$907	\$672	\$313	\$335	\$743	\$326	\$187	\$406	\$108
Beans	\$3,735	\$2,178	\$514	\$2,524	\$1,648	\$3,249	\$3,658	\$4,457	\$2,844
Corn	\$3,765	\$2,613	\$2,489	\$3,216	\$2,955	\$1,859	\$1,872	\$3,418	\$3,033
Hay - Alfalfa	\$7,875	\$10,395	\$8,085	\$9,677	\$9,587	\$9,257	\$8,848	\$10,618	\$12,223
Hay - Other	\$330	\$486	\$258	\$225	\$203	\$162	\$141	\$201	\$147
Pasture - Irrigated	\$3,080	\$2,640	\$2,860	\$2,640	\$2,145	\$1,658	\$1,823	\$1,989	\$2,785
Range	\$1,440	\$1,440	\$1,440	\$1,440	\$1,200	\$1,200	\$1,200	\$1,200	\$1,440
Rice Paddy	\$66,984	\$40,680	\$34,313	\$37,365	\$36,657	\$31,566	\$30,986	\$58,522	\$50,634
Safflower	\$897	\$337	\$316	\$281	NA	NA	NA	NA	NA
Silage	\$1,650	\$1,238	\$1,404	\$1,458	\$1,800	\$1,200	\$1,388	\$1,950	\$1,728
Grain - Sorghum	\$605	\$764	\$486	\$537	\$790	\$327	\$284	\$576	\$335
Sugar Beets	\$4,242	\$4,936	\$3,353	\$5,487	\$5,036	\$5,110	\$8,380	\$9,916	\$8,228
Wheat	\$11,089	\$6,663	\$3,819	\$5,154	\$8,565	\$4,908	\$4,976	\$8,359	\$7,128
Miscellaneous	\$2,529	\$2,678	\$2,036	\$2,956	\$3,242	\$960	\$3,873	\$1,202	\$929
TOTALS	\$109,128	\$77,720	\$61,686	\$73,295	\$74,571	\$61,782	\$67,616	\$102,814	\$91,562
SEED CROPS									
Alfalfa	NA	NA	NA	\$281	\$274	NA	\$200	\$121	\$261

Beans	NA	NA	NA	\$833	\$1,068	\$1,133	\$1,077	\$1,766	\$1,419
Clover	\$1,161	\$1,400	\$1,586	\$1,728	\$2,131	\$2,472	\$2,841	\$1,669	\$1,177
Rice	NA	\$1,528	\$1,371	\$1,275	\$652	\$1,323	\$1,027	\$1,692	\$1,976
Safflower	NA	NA	NA	NA	NA	NA	NA	\$90	NA
Sudan	NA	\$135	\$132	NA	NA	NA	NA	\$342	NA
Sunflower	\$1,517	\$1,095	\$2,867	\$2,726	\$3,927	\$5,210	\$1,489	\$1,423	\$1,501
Vine Crops	\$1,217	\$1,063	\$1,246	\$1,994	\$1,515	\$1,454	\$3,010	\$1,616	\$1,418
Wheat	NA	NA	NA	\$334	NA	NA	NA	\$376	\$402
Other Seed	\$4,958	\$2,807	\$2,231	\$294	\$179	\$268	\$241	\$124	\$356
TOTALS	\$8,853	\$8,028	\$9,433	\$9,465	\$9,746	\$11,860	\$9,885	\$9,219	\$8,510
FRUIT AND NUT CROPS									
Almonds	\$8,369	\$7,417	\$5,290	\$11,601	\$7,439	\$17,156	\$18,746	\$12,425	\$16,205
Citrus	NA	\$1,044	\$1,622	\$2,659	\$714	\$1,954	\$1,567	\$2,024	\$871
Olives	\$2,519	\$2,958	\$2,074	\$3,234	\$3,700	\$3,175	\$3,961	\$5,762	\$3,562
Prunes	\$7,708	\$6,487	\$8,414	\$8,874	\$7,488	\$9,136	\$16,038	\$18,729	\$13,913
Walnuts	\$5,219	\$6,139	\$2,843	\$3,553	\$4,381	\$4,312	\$6,314	\$7,188	\$5,611
Misc. Fruits & Nuts	\$418	\$1,389	\$1,102	\$2,069	\$1,495	\$3,163	\$1,992	\$2,107	\$2,479
TOTALS	\$24,233	\$25,434	\$21,345	\$31,990	\$25,217	\$38,896	\$48,618	\$48,640	\$43,439
FOREST PRODUCTS									
Timber	NA	\$3,145	\$875	\$1,887	\$4,312	\$2,421	\$3,056	\$4,672	\$4,853
Firewood	NA	\$171	\$153	\$58	\$48	\$42	\$122	\$35	\$204
Christmas Trees	NA	\$11	\$16	\$33	\$24	\$5	\$19	\$5	\$36
TOTALS	NA	\$3,327	\$1044	\$1,978	\$4,384	\$2,468	\$3,197	\$4,712	\$5,093
LIVESTOCK									
Cattle/Calves	\$11,829	\$9,396	\$9,442	\$8,207	\$7,912	\$7,638	\$9,265	\$12,351	\$12,888
Sheep/Lambs	\$2,002	\$1,886	\$1,702	\$1,378	\$1,922	\$1,293	\$1,335	\$1,110	\$893
Hogs/Pigs	\$310	\$279	\$160	\$126	\$76	\$108	\$127	\$142	\$160
TOTALS	\$14,141	\$11,561	\$11,304	\$9,711	\$9,910	\$9,039	\$10,727	\$13,603	\$13,941
Livestock and Poultry Products (includes wool, milk)	\$27,839	\$27,105	\$24,247	\$22,543	\$24,056	\$24,277	\$23,221	\$26,336	\$27,624
TOTALS	\$27,839	\$27,105	\$24,247	\$22,543	\$24,056	\$24,277	\$23,221	\$26,336	\$27,624

Source: Glenn County Department of Agriculture. Annual Crop and Livestock Report for years 1981 - 1990.

The predominant seasonal surface wind flow patterns for California and Glenn County are shown in Appendix A. Wind directions and speeds reflect the channeling effect of the Coast Range on the west, with the Sierra Nevada on the east and the Cascade Range on the north. Wind flow direction in the county varies seasonally, but the predominant wind flow in the county is from the south-southeast and can be described as generally light over the entire area with an annual average wind speed of about eight m.p.h. (California/Oregon Transmission Project DEIR, 1986) (Fugro-McClelland (West) Inc., 1991).

2.3 WATER RESOURCES

2.3.1 Surface Flows

Glenn County is drained chiefly by Stony Creek, Willow Creek, Walker Creek and the Sacramento River. Stony Creek flows from the mountainous uplands, through the foothills, and enters the Sacramento Valley just west of the Orland Buttes. It runs southwesterly into the Sacramento River about five miles southeast of Hamilton City. Draining foothill areas west of Stony Creek are Willow and Walker Creeks. Most northerly is Walker Creek which flows southeasterly, joining Willow Creek east of Willows. Willow Creek continues into Colusa County, eventually entering the Colusa Basin Drain. The Sacramento River, which is the chief

source of surface irrigation water in the county, flows southward through the center of the Sacramento Valley, joins the San Joaquin River in the Delta, and then flows into the San Francisco Bay and the Pacific Ocean. Other streams draining Glenn County include Wilson Creek, French Creek, Logan Creek and Hunter Creek.

Two major canals also traverse the county. The Glenn-Colusa Canal crosses the county starting at the Sacramento River north of Hamilton City and running southwest, passing just east of Willows before heading south into western Colusa County. The other primary irrigation canal in the county, the Tehama-Colusa Canal, begins at the Red Bluff diversion dam and trends southward through the county, eventually terminating near Dunnigan in Yolo County.

The total surface water diversions for Glenn County in 1989 were 691,000 acre-feet (af), including 543,900 af from the Central Valley Project, 75,900 af from the Black Butte Reservoir and 71,500 af from other sources developed locally. Except for 24,000 af utilized for wildlife refuges, all of this water was used for agricultural purposes (State of California Department of Water Resources, Northern District, 1989 Water Budget, Glenn County).

- **Reservoirs**

Stony Gorge Reservoir is located in west-central Glenn County and was constructed by the Federal Bureau of Reclamation in 1928, mainly for irrigation purposes. The dam is 868 feet long, 140 feet high, and has 50,000 af of storage capacity. The electrical generating facilities at Stony Gorge Reservoir were retrofitted to the dam structure, and include two steel penstocks and two horizontally mounted turbines. Support facilities include a switchyard, access roads and a transmission line.

The power generating facilities of the Black Butte Hydroelectric project are in Tehama County, though Black Butte Reservoir itself extends south into Glenn County and is part of the Stony Gorge system (water from Stony Gorge Reservoir flows into Black Butte Reservoir). The Army Corps of Engineers constructed the earthen dam in 1964. The dam measures 2,970 feet across at its crest and rises 140 feet above the original stream channel. The dam can impound 160,000 af of water when full.

The hydroelectric generating facilities include a 567-foot long concrete-lined penstock, 12 feet in diameter, and a single vertically mounted turbine. Support facilities include a powerhouse, switchyard, access roads, and transmission lines that connect the facility to the PG&E grid.

All of the facilities described above are operated for the City of Santa Clara by the Orland Unit Water User's Association. The Association also operates and maintains Stony Gorge Dam and East Park Dam (which is located upstream from Stony Gorge Reservoir in Colusa County). The Association controls water releases from East Park and Stony Gorge Reservoirs, which then flow northward into Black Butte Reservoir. The Association then makes requests to the Bureau of Reclamation for releases from Black Butte Reservoir for the Association's irrigation needs (Fugro-McClelland (West) Inc., 1991).

2.3.2 Groundwater

The eastern portion of Glenn County overlies the 5,000 square mile Sacramento Valley Groundwater Basin, which extends from Red Bluff south to the Sacramento-San Joaquin Delta, to the North Coast Range on the west, and east to the Sierra Nevada and Cascade Ranges. A thick sequence of sedimentary materials underlying the valley floor contain fresh groundwater to a depth of about 400' near Orland in the northern portion of the county and 800' to 1200' in the Colusa Basin south of Willows (DWR, Bulletin 118-6, August, 1978, Figure 18). The average well yields 800 gallons per minute. Groundwater pumping for irrigation occurs primarily in the area south and east of Orland and north of Willows (DWR, Plate 1, Irrigated Lands Sacramento Valley, 1970). The greatest amount of natural recharge in the valley occurs in the Stony Creek area of southern Glenn County (DWR, p.67). Groundwater levels were lowered as a result of low rainfall during the late 1980s, but have rebounded following the March 1991 rains (Pers. comm., Glen Pearson, DWR, 7/5/91).

The State Department of Water Resources monitors groundwater conditions, including semi-annual measurements of 79 wells for water level in Glenn County (Glenn County General Plan Conservation Management Element, p 37). Groundwater pumping in 1989 totaled 238,400 af, of which 230,100 af were applied to agriculture and 8,300 af to municipal and industrial uses (State of California Department of Water Resources, Northern District, 1989 Water Budget, Glenn County). Additional domestic water is supplied from private wells, which are not monitored.

2.4 BIOLOGICAL RESOURCES

As described in Section 2.1.1, Topography, Glenn County extends from high elevations (+7,000 feet) in the east slope of the North Coast Range to the low elevations in the broad flat alluvial plain of the Sacramento Valley. As a result of such major changes in elevation, Glenn County includes a great variety of climatic, soils and geographic conditions which, in turn, influence the distribution, variety, and abundance of the plant and animal species within the county.

2.4.1 Vegetation

Glenn County contains seven major vegetation associations, which support a diverse array of plant and animal species. Figure 2-6 shows the major vegetation associations in the county. The following descriptions of the vegetation associations and predominant species within each association are based on findings reported by Kuchler (1988), Holland (1986), and Arend (1967). The acreage of the cover types is based on previous County estimates (County of Glenn 1985, 1987).

- **Blue Oak-Digger Pine Woodlands**

The Blue Oak-Digger Pine community occupies about 174,700 acres (21.7 percent) of the county. This plant community is located in the central portion of the county in the lowest foothill elevations, immediately between the chaparral on the higher slopes and the grasslands/agricultural lands on the valley floor. The plant community is characterized by medium tall, dense-to-open broad-leaved deciduous forest mixed with needle-leaved evergreens. The community typically transitions from relatively dense canopy cover to a savanna situation where grasslands dominate the groundcover. The dominant species are

blue oak and digger pine intermixed with California buckeye, toyon, buckbrush, common manzanita, whiteleaf manzanita, Valley oaks, interior live oak, coffeeberry, and poison oak.

- **Coast Range Montane Forest**

Coast Range Montane Forest (Pine-Fir-Chaparral) covers about 105,210 acres (12.5 percent) of the county on the eastern slope of the North Coast Range within the Mendocino National Forest. This plant community is located in the higher elevations, and is characterized by tall, dense-to-moderately open, needle-leaved evergreen forest with occasional patches of broad-leaved evergreen shrubs. Dominant forest species include white fir, red fir, yellow pine, Douglas fir, ponderosa pine, incense cedar, and black oak. Typical evergreen shrubs include pinemat manzanita, greenleaf manzanita, and mountain whitethorn.

- **Chamise Chaparral and Northern Mixed Chaparral**

Chamise Chaparral and Northern Mixed Chaparral occupy approximately 84,447 acres or 10.5 percent of the land in Glenn County. The Chamise Chaparral dominates in the lower elevations, while the Northern Mixed Chaparral dominates at higher elevations (Gilgert, Pers. comm., 1991). The chaparral communities typically intergrade with the Coast Range Montane Forest in the higher elevations and the Blue Oak-Digger Pine Woodlands in lower elevations of the east slope. These communities form dense stands of needle-leaved and broad-leaved evergreen sclerophyll shrubs ranging in height from 3 to 10 feet. Typical species include chamise, several manzanita species, including eastwood, bigberry and whiteleaf manzanita, buckbrush, chaparral whitethorn, redbud, toyon, California buckeye, interior live oak and mountain-mahogany.

- **Grasslands**

Grassland communities cover approximately 63,103 acres (7.5 percent) of the county, typically in the lowest valley elevations. Formerly, these lands were dominated by perennial native grasses, but have largely been replaced with non-native annual species since European settlement. Two major grassland communities are the non-native grassland and the valley needlegrass community described below:

Non-Native Grassland Community. Composed principally of introduced perennial and annual grasses, including wild oats, soft chess, red brome, ripgut brome, fescue, cheat grass, ryegrass, and other herbaceous vegetation, such as storksbill, filaree, California poppy, and lupine.

Valley Needlegrass Grassland Community. A relict community (i.e., left over from a previous ecological system) dominated by the perennial, tussock-forming speargrass found on fine-textured soils that are moist or waterlogged in winter, but very dry in summer (Holland 1986). Native species commonly associated with this community include needlegrass, yarrow, blow-wives, mountain dandelion, golden brodiaea, soap plant, melic grass, plantain, bluegrass, nodding stipa grass, as well as a number of introduced species, such as wild oats and brome grasses.

- **Riparian Communities**

Riparian communities formerly occupied extensive stands within the county; however, current acreage estimates are about 2,280 acres, principally along the Sacramento River and Willow and Walker Creeks (County of Glenn Land Use Element, 1985). Four particularly important riparian communities in Glenn County have been identified by the California Department of Fish and Game (1991). These include:

Great Valley Willow Scrub. An open to dense, broadleafed, winter-deciduous streamside thicket community. Dense stands have little understory and are dominated by Pacific willow, arroyo willow, sandbar willow, black willow, wild grape, and shrub-sized Fremont cottonwood. In open thickets, grass understories can develop. This community is generally situated in the lowest flood plain elevations and is subjected to considerable scour during flood stages which impairs the succession to woodland.

Great Valley Cottonwood Riparian Forest. A dense, broadleafed, winter deciduous forest community. It is dominated by Fremont cottonwood and Goodding willow. Associated canopy and understory vegetation include California box elder, Oregon ash, buttonbush, wild grape, and several willow species (Pacific, arroyo, black, and sandbar). This community is typically a transitional community between the Great Valley Willow Scrub community at lower elevations and the Great Valley Mixed Riparian Forest community at higher elevations.

Great Valley Mixed Riparian Forest. A tall, broadleafed riparian forest community with a closed canopy composed of winter-deciduous species. Typical canopy species include California box elder, Fremont cottonwood, western sycamore, Hind's walnut, Goodding willow, and Pacific willow. These forest are generally very dense, resulting in ashade-tolerant understory typically composed of buttonbush, shrub Oregon ash, wild grape, and poison oak.

Great Valley Valley Oak Riparian Forest. The highest elevational element of the riparian complex, this community intergrades with typically upland communities at the margins of the floodplain. This community is composed of medium-to-tall broadleafed, winter-deciduous species and is dominated by the Valley oak. Associated understory vegetation includes sycamore, Oregon ash, Hind's walnut, California rose, wild grape, poison oak, blackberry, and greenbriar (Fugro-McClelland (West) Inc., 1991).

- **Wetlands**

Wetlands comprise approximately 4,278 acres of Glenn County, and include marshes, ponds, fringes of small lakes, sloughs, and swamps (County of Glenn, 1985). The largest wetland assemblages occur within the Sacramento River floodplain, including the managed wetlands of the Sacramento National Wildlife Refuge (Figure 2-7). Wetlands may also be found in areas with suitable soil and hydrologic conditions.

The U.S. Soil Conservation Service (SCS) has identified 25 soil series, involving 93 specific soil mapping units, in Glenn County that display hydric characteristics. These soils are

typically found in soil associations of the drainage basins (Willows-Capay, Willows-Plaza-Castro and Landlow-Stockton) found primarily in the southeast portion of the county; soils of older alluvial fans and low terraces (Arbuckle-Kimball-Hillgate, Hillgate-Arbuckle-Artois, Tehama-Plaza, Myers-Hillgate and Zamora-Marvin Associates) found through the eastern two-thirds of the county along creek drainages; and soils of the more recent alluvial fans and floodplain (Wyo-Jacinto, Cortina-Orland and Columbus Associates) also found throughout the eastern two-thirds of the county (U.S. Department of Agriculture, 1968).

Hydric soils are saturated over long periods and support hydrophytic (wetland) vegetation under saturated conditions. Many of the lands underlain with hydric soils have been drained or managed for rice production. A typical wetland community in Glenn County is the *Coastal and Valley Freshwater Marsh*, which is typically found in floodplain areas and dominated by cattails, tules, sedges, umbrella sedges, scour rushes, and smartweed.

In addition to wetlands, vernal pools are found in various portions of the county (Gilbert, Pers. comm., 1991). Vernal pools are herbaceous communities that develop in ground depressions that fill with water from winter rains. The depressions have restricted soil percolation due to impervious materials (clay) underlying them. Because runoff and percolation are impaired, water is retained for prolonged periods until evaporated in the spring. As evaporation proceeds, concentric rings of vegetation, corresponding to residual soil moisture, remain. Typically, vernal pool communities in Glenn County would include the following:

Northern Hardpan Vernal Pool. These vernal pools are found on old, acidic, iron-silica (Fe-Si) cemented soils. Typical vegetation includes brook spike-primrose, annual hairgrass, double-horn downingia, cuspidate downingia, flat-face downingia, inch-high rush, Fremont's goldfield, white meadowfoam, northern mudwort, white-head navarretia, paintbrush owl's-clover, Sacramento mesamint, dwarf wholly-heads, corn speedwell, slender popcorn flower, and coast popcorn flower.

Northern Claypan Vernal Pool. These vernal pools are underlain with old, circum-neutral, silica-cemented hardpan soils. Typical species associated with this community include fine-branch popcorn flower, smooth spike-primrose, spreading alkali-weed, Hoover's downingia, California coyote-thistle, smooth goldfields, coast goldfields, tiny mouse-tail, Douglas' mesamint, and purslane speedwell.

Fill activities within "waters of the United States" (e.g., lakes, rivers, oceans, wetlands and sometimes vernal pools) are regulated under Section 404 of the Federal Clean Water Act (33 USC 1344) and administered by the U.S. Army Corps of Engineers. The Corps requires project-specific jurisdictional wetland determinations for the processing of permits involving the discharge of fill material into wetlands (Fugro-McClelland (West) Inc., 1991).

- **Mendocino National Forest**

The Mendocino National Forest encompasses portions of Glenn, Mendocino, Tehama, Lake, and Colusa counties. Present management plans provide for an annual timber sale of approximately 85.5 million board feet from the Forest (including lands in other counties).

Until recently, annual harvests have averaged about 84 million board feet. The new plan will likely reduce this amount to approximately 20 to 25 million board feet as a result of plans to protect the northern spotted owl. Some areas will be off-limits to harvest and other areas will be restricted (Pers. comm., Dick English, August 1991.)

A Land and Resource Management Plan for the Mendocino National Forest is currently being developed and is scheduled for completion in early 1992. This Plan will incorporate new requirements for the management of the northern spotted owl resulting from the Federal listing of the spotted owl as a threatened species under the Endangered Species Act of 1973. This plan is expected to provide for an annual timber sale program of approximately 20 to 25 million board feet.

Within the Forest, which encompasses portions of the six counties mentioned above, there are 471,916 acres capable of producing commercial timber crops at acceptable growth rates, as determined by the Forest Service. Of this total, 99,890 acres within the Yolla Bolly-Middle Eel and Snow Mountain wildernesses and the Middle Fork of the Eel River Wild and Scenic River corridor are unavailable for timber harvest. Another 28,593 acres are considered unsuitable for timber production without irreversible soil and watershed damage, or due to the lack of reasonable assurance that the lands can be adequately reforested following final harvest. Concerns for uses such as recreation, visual resources, wildlife habitat, and stream and riparian zones further reduce the area considered suitable for timber harvesting. The three major forest types occurring on the suitable lands include mixed conifer, conifer-hardwood, and red fir. Currently, 17 firms hold 42 timber sale contracts with the Forest Service (Pers. comm., Dick English, August 1991).

2.4.2 Wildlife

The variety of vegetative cover types in the county provide habitat for many different types of wildlife. The types of animal species commonly associated with each of the vegetation associations were determined from a variety of sources (Faber et al. 1989; Herbold and Moyle 1989; Mayer and Laudenslayer 1988; Jones & Stokes Associates 1987; U.S. Department of Agriculture 1986, and Arend 1967) and are listed in Appendix B.

Of particular significance is the large expanse of deer range located in western Glenn County and the winter waterfowl habitat located within and surrounding the Sacramento National Wildlife Refuge. Three major deer herds are located in the area, the Clear Lake Deer Herd, the Alder Springs Deer Herd, and the East Park Capay Deer Herd. The Alder Springs and East Park Capay herds are the principal herds within Glenn County and include resident and migratory Columbia blacktail and California mule deer. The migratory deer spend summers at high elevations in the North Coast Range and migrate to lower elevations in the winter. Critical summer and winter range, migration routes, and fawning areas are illustrated on Figure 2-7.

The winter waterfowl habitat of the Sacramento National Wildlife Refuge is administered by the U.S. Fish and Wildlife Service (USFWS), encompassing over 10,000 acres and providing winter migratory habitat for over one million birds at the peak of migration (December-January). Over 200 species of birds have been recorded in the refuge, including 26 species of waterfowl and 20 species of shorebirds. The most abundant waterfowl include pintail, mallard, pigeon, snow geese,

white-fronted geese, and cackling geese (U.S. Fish and Wildlife Service, 1981) (Fugro-McClelland (West) Inc., 1991).

Within the Mendocino National Forest, the Forest Service maintains a habitat management program, the main objective of which is to maintain or enhance viable populations of fish and wildlife species. To ensure that viable populations of all species are maintained, several species have been selected as "management indicator species" (MIS) to function as barometers for wildlife communities. These include species designated as Sensitive by the Forest Service, species of local interest, and species listed as Threatened or Endangered by either the Federal or State government. These include the bald eagle, peregrine falcon, and spotted owl (Threatened/Endangered); fisher, goshawk and marten (sensitive), black-tailed deer, douglas tree squirrel and western gray squirrel (harvest); tule elk (special interest); and acorn woodpecker, pileated woodpecker, and California thrasher (maintenance).

The establishment of Habitat Conservation Areas (HCAs) within the Mendocino National Forest will provide large tracts of existing and future habitat for fishers, goshawks, martens, and northern spotted owls. These species are distributed throughout the Forest in older mature stands of conifers characterized by a multi-layered canopy and abundant snags and downed logs. The Forest is in the process of developing Management Prescriptions and Forest-wide Standards and Guidelines to direct management of these species (Pers. comm., Dick English, August 1991).

- **Fishery Resources**

The major aquatic resources found in Glenn County include the Sacramento River, Stony Creek, Wilson Creek, Willow Creek, Grindstone Creek, Elk Creek, Black Butte Reservoir, and Stony Gorge Reservoir. Drainages within the county are segments of the Central Valley subsystem of the Sacramento-San Joaquin drainage system (Moyle 1976). These resources include a variety of aquatic habitat types, including high altitude streams, rivers, reservoirs, sloughs, farm ponds, and marshes. Of the estimated 79 fish species that inhabit the subsystem, 47 are native and 32 were introduced.

High elevation streams along the east slope of the North Coast Range are occupied by species adapted to the cool, swift-moving, highly oxygenated waters. Such species include rainbow trout, brook trout, riffle sculpin, and speckled dace. Foothill streams generally flow in winter, but are intermittent in the summer. California roach are the typical native species of these streams due to their tolerance of low oxygen and high water temperatures; however, green sunfish and fathead minnows can also be found and, in winter, Sacramento suckers, squawfish, and other minnows may spawn and overwinter in pools. The rivers and sloughs contain the widest variety of species, including resident and anadromous species.

Typical native anadromous species include Pacific lamprey, white sturgeon, chinook salmon, and steelhead trout. Resident native species include Sacramento blackfish, hardhead, hitch, Sacramento squawfish, California roach, Sacramento sucker, and Sacramento perch. Significant introduced species include threadfin and American shad, brown trout, carp, golden shiner, fathead minnow, channel catfish, black bullhead, mosquitofish, striped bass, black crappie, white crappie, green sunfish, bluegill, smallmouth bass, and largemouth bass. The principal reservoirs in the county, Black Butte and Stony Gorge, provide a typical warm

water fishery including largemouth bass, smallmouth bass, white crappie, black crappie, channel catfish, striped bass, bluegill, carp, and Sacramento squawfish. The California Department of Fish and Game supplements the fishery with planted stocks (Fugro-McClelland (West) Inc., 1991).

- **Sensitive Species**

The Federal Endangered Species Act of 1973 (50 CFR 17) provides legal protection, and requires definition of critical habitat and development of recovery plans for, plant and animal species in danger of extinction. California has a parallel mandate in the California Endangered Species Act of 1984 and the California Native Plant Protection Act of 1977. These laws regulate the process of determining which plant and animal species are endangered or threatened. In addition, the Federal Endangered Species Act requires federal agencies to make a finding on all federal actions, including the approval by an federal agency of a public or private action (such as the issuance of a Section 10/404 permit), as to the potential to jeopardize the continued existence of any listed species potentially impacted by the action. Species listed by the State are not necessarily protected by the federal protection agencies. Under the State laws, the California Department of Fish and Game is empowered to review projects for their potential impacts to listed species and their habitats.

In addition to formal endangered and threatened listings by the federal and State governments are the listing of species of special interest due to their limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species are not afforded the same legal protection as listed species, but may be added to official lists in the future. There are two general categories of special interest species: 1) candidates for official federal or state listing as threatened or endangered; and 2) species that are not candidates, but which have been unofficially identified as a species of special interest by private conservation organizations or local governments.

Federal candidate species are assigned to one of two categories depending on current knowledge about the species and its biological importance for listing. Federal Category 1 candidate species (FC1) include those for which the USFWS currently has compiled substantial information on biological vulnerability and threats, to support proposing to list the species as endangered or threatened. Federal Category 2 candidates (FC2) include species for which sufficient information is available to indicate possible listings, but for which additional data on vulnerability and threats are required. The state also maintains lists for Candidate-Endangered Species (SCE) and State Candidate-Threatened Species (SCT).

The California Department of Fish and Game (DFG) RareFind database (1991) was queried to identify sensitive species that currently or historically were reported in Glenn County. These data were supplemented with information contained in DFG's *Areas of Special Biological Importance -Glenn County, California* (1979), which delineated historic yellow-billed cuckoo habitat, and mapping of spotted owl habitat within the southwestern section of Glenn County in the Mendocino National Forest (U.S. Department of Agriculture 1986). Table 2-4 summarizes the sensitive species reported in Glenn County (Fugro-McClelland (West) Inc., 1991).

- **Important Biological Resource Areas**

Important biological resource areas within Glenn County were determined through an examination of previous mapping and inventory studies (California Department of Fish and Game 1979; California Natural Areas Coordinating Council 1982; U.S. Fish and Wildlife Service 1980; Holland 1978; Perry and Perry 1983; County of Glenn 1985, 1987; California Department of Fish and Game 1991). The important biological resource areas are summarized in Table 2-5, and illustrated in Figure 2-7 (Fugro-McClelland (West) Inc., 1991).

- **North Central Valley Wildlife Management Area**

The USFWS has released a draft Environmental Assessment for the proposed North Central Valley Wildlife Management Area, a component of the North American Waterfowl Management Plan's Central Valley Habitat Joint Venture. The proposed wildlife management area encompasses portions of Tehama, Butte, Glenn, Colusa, Yolo, Solano, Contra Costa, and San Joaquin counties. This proposal involves a combination of fee title and conservation easement acquisitions of USFWS and CDFG.

The purpose of the proposed acquisition program is to preserve important remaining wetland habitat for migratory waterfowl and other wetland-dependent wildlife and plants. Suitable area which are restored to wetlands would also be preserved for the same purpose. According to the Environmental Assessment, "The net result of this wetland preservation and restoration program would be to enhance the quality and quantity of habitat available to waterfowl and other wetland dependent wildlife and thereby provide for increased populations".

No fee title land acquisition, but easements of 7,000 acres are proposed in Glenn County; 750 acres of existing wetlands and 6,250 acres of restored wetlands are also identified for purchase from "willing sellers" under this proposal.

Table 2.4-1

**TABLE 2-4
SENSITIVE SPECIES REPORTED IN GLENN COUNTY**

COMMON NAME	SCIENTIFIC NAME	STATUS
Insects		
Valley Elderberry Longhorn Beetle	<u>Desmocerus californicus dimorphus</u>	FT
Amphibians and Reptiles		
California Tiger Salamander	<u>Ambystoma tigrinum californiense</u>	CSC, FC-2
Giant Garter Snake	<u>Thamnophis couchii gigas</u>	ST, FC-2
Birds		
Great Blue Heron	<u>Ardea herodias</u>	SA
Great Egret	<u>Casmerodius albus</u>	SA
Osprey	<u>Pandion haliaetus</u>	CSC
Bald Eagle	<u>Haliaeetus leucocephalus</u>	SE, FE
Northern Goshawk	<u>Accipiter gentilis</u>	ST, FC-3C
Spotted Owl	<u>Strix occidentalis</u>	FT
Swainson's Hawk	<u>Buteo swainsoni</u>	ST, FC-3
Western Yellow-billed Cuckoo	<u>Coccyzus americanus occidentalis</u>	SE, FC-3B
Bank Swallow	<u>Riparia riparia</u>	ST

Tricolored Blackbird	<u>Agelaius tircolor</u>	FC-2
Mammals		
Pacific Fisher	<u>Martes pennanti pacifica</u>	CSC
Plants		
Caper-fruited Tropicocarpum	<u>Tropicocarpum capparideum</u>	FC-2
Drymaria-like Dwarf Flax	<u>Hesperolinon drymariodes</u>	FC-2
California Hibiscus	<u>Hibiscus californicus</u>	FC-2
Brandege's Eriastrum	<u>Eriastrum brandegeae</u>	FC-2
Plaskett Meadows Linanthus	<u>Linanthus harknessii condensatus</u>	FC-2
Dimorphic Snapdragon	<u>Antirrhinum subcordatum</u>	FC-3C
Indian Valley Brodiaea	<u>Brodiaea coronaria rosea</u>	SE, FC-2
Adobe Lily	<u>Fritilaria pluriflora</u>	FC-2
Diamond-petaled California Poppy	<u>Eschscholzia rhombipetala</u>	FC-2
Ahart's Paronychia	<u>Paronychia ahartii</u>	FC-2
Veiny Monardella	<u>Monardella douglassii venosa</u>	FC-2
Shippee Meadowfoam	<u>Limnanthes floccosa californica</u>	SE, FC-1

Note:FE - Federal Endangered Species
SE - State Endangered Species
FT - Federal Threatened Species
ST - State Threatened Species
FC - Federal Candidate Species
SA - State Special Animal
CSC - California Species of Special Concern

Table 2.4-2

**TABLE 2-5
IMPORTANT BIOLOGICAL AREAS IN GLENN COUNTY**

AREAS OF SPECIAL IMPORTANCE	SITE NO.	DESCRIPTION
Llano Seco Area	1	The Llano Seco area is a 2,700 acre tract of riparian, valley oak, and freshwater marsh habitat located along the Sacramento River
Oxbow Waterfowl Area	2	The Oxbow Waterfowl Area is a publicly and privately held tract of 1,600 acres of mature river flood plain located along the Sacramento River from Chico Landing to above Ord Ferry. The area contains riparian and freshwater marsh habitat.
Oxbow Heron Rookery	3	The Oxbow Heron Rookery is a 399 acre, privately owned parcel of riparian land used as a rookery for great blue herons and common egrets.
Sacramento NWR	4	See text.
Princeton Riparian Woodland	5	The Princeton Riparian Woodland is a 150 acre tract of riparian forest dominant by cottonwood, sycamore, and valley oak. It is owned by the State of California and private parties.
Sacramento River Wildlife Area	6	The Sacramento River Wildlife Area is a riparian association with wet meadows which is administered by the California Department of Fish and Game. It is composed of 3 units along the Sacramento River from just south of Golden State Island into Tehama County.
Sacramento River Oxbow Preserve	7	The Sacramento River Oxbow Preserve is a 94 acre tract of dense riparian forest held by the Nature Conservancy.
St. John's Mountain	8	St. John's Mountain and Snow Mountain area contain numerous montane vegetation communities including alpine meadow, alpine marsh, Douglas fir forest, yellow pine forest, and chaparral.
Sheetiron Mountain	9	Sheetiron Mountain is a mixed conifer forest with a great variety of plants, including a red fir stand, yellow pine, Douglas fir, and stands of Brewers oak.
Black Butte Reservoir	10	Black Butte Lake is a 160,000 acre-foot flood control and hydropower reservoir operated by the U.S. Army Corps of Engineers. The lake provides a warm water fishery, camping, and a wildlife area.

Stony Gorge Reservoir	11	Stony Gorge Lake is a 50,000 acre-foot water supply and hydropower facility constructed in 1928 by the U.S. Bureau of Reclamation. It is currently operated by the Orland Unit Water Users Association. It offers a warm water fishery, however, lands surrounding the lake are privately held and in agricultural production.
Orland Buttes	12	Orland Buttes are unique geologic features which rise approximately 500 feet above the valley flood and extend 6 miles in a north-south direction. Associated vegetation is grazed grassland and blue oak savannah.

SEE FIGURE 2-7 FOR THE LOCATIONS OF THE SITES NUMBERED ABOVE.

2.5 MINERAL AND ENERGY RESOURCES

Notable mineral resources in Glenn County include natural gas and construction grade aggregate material (Glenn County Conservation Management Element, 1987). In addition, published reports indicate past attempts to exploit deposits of chromite, molybdenite and copper (CDMG, 1929). Primary areas for gravel extraction occur along Stony Creek and the Sacramento River, although there are other pockets of gravel scattered throughout the county. Figure 2-8 shows the location of sand and gravel operations within the county.

Several gas fields contribute to a significant quantity of natural gas production in Glenn County. Of these, the Malton-Black Butte field located on the border with Tehama County in eastern Glenn County, and the Willows-Beehive Bend field located in southeastern Glenn County account for nearly 80 percent of total gas production in the county. Figure 2-9 shows the known gas fields within Glenn County. No oil or geothermal resources have been discovered in the county.

The Energy Facility Siting in Glenn County-Working Paper (June 1991) prepared by Crawford Multari & Starr concludes that it is likely that natural gas production will continue in Glenn County for at least the next twenty years. No public information exists regarding planned or proposed facilities.

Mining in Glenn County was primarily related to the extraction of strategic minerals during World Wars I and II. The extraction of chrome and manganese essentially ended in the late 1940s with the loss of government demand and subsidies (Fugro-McClelland (West) Inc., 1991).

2.6 CULTURAL RESOURCES

To document the cultural resources of Glenn County, a comprehensive record search was conducted of the archaeological maps and files maintained by the California Archaeological Inventory Information Center at California State University, Chico.

2.6.1 Definition of an Archaeological Site

Archaeological sites are places where human activity has measurably altered the earth. Archaeological deposits that predate Spanish colonization are the only source of information about the historical development of Native Californian societies. Archaeological sites formed during and after the Spanish colonization of California can usually be easily distinguished from sites occupied prehistorically. Historic settlements frequently contain iron artifacts, pottery, porcelain, glass, coal, and other materials not used in the region before Spanish contact.

Below the surface of most prehistoric archaeological sites are clusters of burned rocks that are the remains of hearths and ovens. Animal remains and artifacts that are products of prehistoric domestic and ceremonial life can also be found. Soil disconformities caused by the excavation of post holes and pots associated with structures, ovens, storage facilities, and burials also are present at most archaeological sites. Because such physical remains are the products of organized human life, data on the distribution of hearths, ovens, house depressions, storage facilities, manufacturing areas, deposits of food refuse, and other artifacts can be used to reconstruct the organization of human societies which existed in the past.

2.6.2 Glenn County Record Search Results

The exact location of cultural resource sites is generally not disclosed because of the sensitivity of such sites to vandalism. Therefore, such locations are not presented in this document. Instead, a description and quantification of site types and the general environmental associations of cultural resources known to exist within the county is presented.

The archaeological record search revealed that a total of 464 sites have been recorded in Glenn County. Of those sites, there were 164 villages, 92 campsites, 90 lithic scatters, 104 historic sites, 11 quarries, and 3 rock shelters. The location and environmental context of the sites vary, based on the following four general environmental zones which are described from east to west across the county:

- Riverine Zone
- Valley Zone (between the river and the foothills)
- Foothill Zone
- Coast Range Zone

The Riverine Zone includes the Sacramento River and surrounding natural levees and floodplains. Within this zone, most sites are villages typically located on raised areas adjacent to the river. The Valley Zone generally lies between the Sacramento River and the foothills. Within this zone most recorded sites are smaller villages or campsites located along the seasonal streams, and historic sites such as homesteads.

The Foothill Zone has the highest density of sites, including historic ranching and homesteading sites, prehistoric villages, and task sites, most of which are close to water sources. The Coast Range Zone has a lower density of sites, with most sites located on ridge tops, along streams, and on mid-slope flats.

Within the Mendocino National Forest, two cultural resource overviews were conducted during the 1980s. A forest-wide study of the history, prehistory, and contemporary concerns of the Native American Indian was completed in 1982. A second study, focusing on the identification of areas of importance to Native Americans, was completed for a portion of the Forest in 1984 (Fugro-McClelland (West) Inc., 1991).

2.7 ANALYSIS OF ISSUES, OPPORTUNITIES AND CONSTRAINTS

As described in this Chapter, natural resources are relatively abundant in Glenn County, due to its location and geographic diversity. Important resources include the following:

- Surface and ground water of good quantity and quality;
- Timber on both public and private lands;
- Soils which support a variety of crops and agricultural operations;
- Natural gas, hydroelectric and aggregate resources;
- The natural environment, including vegetation types and habitat which support a diversity of wildlife, including sensitive species; and
- Great scenic beauty and variety.

These natural resources have to date provided the basis of Glenn County's economy, and their importance cannot be overestimated. Environmental considerations and outside political actions which affect the use of these natural resources may have a profound effect on the economy and lifestyles of the residents of Glenn County. The policy decisions and choices that are made during the General Plan revision process, involving land use and development patterns and protection of resources, will reflect the level of importance assigned to these resources at the local level. Other policy decisions made at the State and federal levels and imposed on Glenn County will affect local resources as well, and the way the County chooses to accommodate these decisions is also part of this process.

Some factors to be considered in the General Plan revision process include:

Timber

- The impact on the timber industry, the local economy, and County revenues of anticipated reductions in timber harvesting to protect critical habitat for the northern spotted owl and to reflect changes in forest management practices.
- The potential benefits in terms of preserving and enhancing timber resources over the long term.

Water

- The potential for changes in State and federal legislation and regulations regarding agricultural water delivery to reduce irrigation water availability, thus impacting local agricultural production.
- The opportunities and drawbacks associated with the potential sale of agricultural water for urban use.
- The effect on land use patterns if marginal agricultural areas can no longer be productively farmed.

Agriculture

- The importance of Glenn County agricultural resources to the local economy, the State and the nation.
- The potential to balance environmental concerns (water, wildlife, use of agricultural chemicals, air quality) with the benefits associated with agricultural production (production of food and fiber, employment, farm life and values, wildlife habitat).
- The ability to protect agricultural resources through soil conservation, ground water protection, preservation of air quality, wise use of water resources, defining appropriate boundaries for urban development, and making the appropriate provisions for wildlife protection.
- The difficulties associated with continued participation in the Williamson Act program, if property tax subventions to the County by the State are not increased.

Biological Resources

- The effects of increased protection of sensitive wildlife and plant habitat and wetlands by State and federal agencies, which can impact urban development, agricultural practices, timber harvesting, extraction of mineral resources, and construction of flood control facilities.
- The effects of increasing the amount of protected habitat in the county, which may reduce availability of land for other uses, including agriculture and urban development.
- The potential benefits of assuring that valuable habitat (including riparian habitat and wetlands) is protected, including enhanced air and water quality, scenic quality, abundance of wildlife for fishing, hunting and observation, and attractiveness of Glenn County as a tourist destination.

Mineral and Energy Resources

- The importance of mineral and energy resources to the local economy, the State and the nation, and the recognition that these resources are finite.
- The potential to protect resource extraction areas from encroachment by incompatible uses to assure that their extraction will not conflict with established uses and communities, and to assure their future reclamation and restoration to a natural appearance.

Cultural Resources

- The potential for the General Plan to provide policy guidelines regarding site-specific surveys for construction projects which encounter artifacts or human remains.

3.0 PUBLIC SAFETY

3.1 LAW ENFORCEMENT

The Glenn County Sheriff's Office provides law enforcement services within unincorporated areas of the county. The two incorporated cities within the county, Willows and Orland, are served by the Willows and Orland Police Departments, respectively. The California Highway Patrol polices State Highways 162, 45, and 32, Interstate Route 5, and all unincorporated county roadways. (Pers. comm., Diane Millard, Willows Police Department, July 1991.)

The Glenn County Sheriff's Office currently has twenty-six sworn and one non-sworn officers. Other personnel include ten administrative staff, twenty-two correctional staff, and one food manager. The main Sheriff's station is located at 543 West Oak Street in downtown Willows with two substations located in Orland and in Hamilton City. The Office maintains twenty-one vehicles - twelve marked patrol, six unmarked patrol, and three utilized for jail-related transportation, along with two boats. Services provided include citizen and property protection, enforcement, administration, and a Narcotic Task Force. In addition to providing its own dispatch services, the Sheriff's Office renders these services to both Willows and Orland Police Departments primarily during the evening and early morning hours. The Sheriff acts as the County Coroner investigating all deaths occurring in the county. (Pers. comm., Undersheriff Harvey Lewis, Glenn County Sheriff Department, July 24, 1991.)

The existing allocation of "field officers" to population is approximately 17 to 14,050 or 1.2 officers per one thousand people. However, there are currently two vacancies. According to the Sheriff's Department, it is unlikely that these positions will be filled in the foreseeable future due to budgeting constraints. The Department's personnel also serve as backup to the forces of the two incorporated cities, further eroding compliance with the above ratio. The optimum national ratio standard is one officer per 1,000 people.

Within the Mendocino National Forest, the Forest Service has shared law enforcement responsibilities with local law enforcement agencies. The jurisdiction of the Forest Service includes misdemeanor resource codes, felony narcotics, arson, property theft, and public protection when life or property are threatened. Serious law enforcement problems within the Forest include drug and alcohol related crimes, vandalism and property theft, timber trespass, marijuana cultivation and public and employee safety. The Forest Service currently maintains a Cooperative Law Enforcement Agreement with the Glenn County Sheriff's Office.

3.2 FIRE HAZARDS AND FIRE PROTECTION

Fire protection in Glenn County is provided by twelve individual fire districts which include the cities of Willows and Orland (see Figure 3-1 in the *Public Safety Issue Paper*). On a seasonal basis, protection is also provided by the California Department of Forestry (CDF) in the unincorporated foothill and rural areas. In the areas covered by the CDF that are also served by a fire district, both respond to fires during the fire season (approximately May 1 to November 1). (Pers. comm., Mike Terwilliger, CDF, July 12, 1991.) Funding for the fire districts is provided entirely by Glenn County.

The U.S. Forest Service is responsible for wildland fire protection within the Mendocino National Forest boundary. The Forest Service has an agreement with CDF to provide protection to private in-holdings within the National Forest. Both agencies respond to fires around the forest perimeter. There are presently six to eight fire engines in the Forest, depending on the time of the year. The number of engines will be reduced to four in the future. From 1981 through 1990 there were fourteen major fires in the National Forest. An average of 54 fires burned an average of 9,504 acres each year. One-third of the fires were human-caused, but were responsible for only 9 percent of the acreage burned. The Forest experienced an unprecedented number of lightning-caused fires in 1987, which burned areas outside of the Forest boundaries as well. The Forest Service utilizes prescribed burning in non-wilderness areas to prevent fuel buildup and has adopted policies regarding fire management within the Forest.

The Willows Fire District is the only district in the county with full-time paid personnel. The Fire Chief and four staff are employed by the City of Willows to provide continuous coverage. The force consists of a 40-member volunteer company. In 1990 the Willows District responded to 391 calls, including 26 alarms and structure fires, 15 grass or wildland fires, and 116 medical aid calls. The Willows Fire District also provides dispatching for the City of Willows, the Willows rural area, Codora Fire District in Glenn County, and the Glenn Colusa (including Butte City), Hamilton-Bayliss, Ord, Artois, Kanawha, and Elk Creek Fire Districts (Pers. comm., B. Mallory, Fire Chief, City of Willows Fire Department, July 15, 1991).

The Orland Rural Fire District and the City of Orland are responsible for providing fire protection to the City of Orland and Orland rural area, and also provide dispatching for Hamilton City and the Capay Fire District. The District and the City both provide equipment and materials. Manpower is provided by the Orland Volunteer Fire Department, which is staffed by 50 volunteer fire fighters. Fire fighting equipment includes a Chief's truck, rescue vehicle, four fire trucks, and one tanker. (Pers. comm., A. Calonico, City Manager, Orland, Dec. 1992).

With increasing liability exposure and fire hazard from structures rather than grass fires, as well as medical emergencies, extensive training for volunteers is required, and the City of Orland may establish a task force to study possible alternatives.

The CDF has responsibility for fire protection in the area between U.S. Forest Service lands on the west to the high voltage transmission lines on the east. In addition to responding to approximately ten grass fires per season, CDF staff reviews construction proposals and may provide guidance on fire flow requirements, hydrants and street widths.

3.3 GEOLOGIC HAZARDS

3.3.1 Seismicity

Glenn County is in a relatively inactive seismic area when compared to other portions of California such as the San Francisco Bay area and the Los Angeles Basin. There are no Alquist-Priolo Special Studies Zones within the county (Hart, 1988). Such zones highlight active faults that have a potential for ground surface rupture. During the past 100 years, the county has experienced only minor earthquakes within its boundaries and secondary impacts from earthquakes centered out of the area. Projections of future impacts are low to moderate (Glenn

County Safety Element, 1974). (See Figure 4-4 in the *Public Safety Issue Paper* for a diagram showing earthquake recurrence intervals in Glenn County.)

3.3.2 Other Geologic Constraints and Hazards

Geologic hazards in Glenn County include the potential for landslides, subsidence, erosion and soil expansion. The distribution of these hazards is shown in the Glenn County Safety Element (1974). The extent of the potential hazards is summarized as follows:

Landslides.

The areas of highest apparent landslide potential in the county generally correlate with relief. Those areas having the highest potential occur in the mountainous western portion of the county, while lower potential areas occur in the lower relief eastern portion of the county. (See figure 4-2 in the *Public Safety Issue Paper* for a diagram showing landslide potential.)

Subsidence.

Known and potential subsidence areas occur in the eastern portion of the county where extensive groundwater withdrawals have occurred. Extraction of natural gas from reservoirs located in these same areas can also contribute to local subsidence of the land surface. (See Figure 4-3 in the *Public Safety Issue Paper* for a diagram showing potential subsidence areas.)

Erosion.

Erosion may be expected in Glenn County where protective vegetation is removed by construction, fire or cultivation. Factors that contribute to erosion include topography, rainfall, and soil type. Similar to landsliding potential, erosion hazard in the county is highest in the western mountain region and lowest in the eastern valley region. (See Figure 4-1 in the *Public Safety Issue Paper* for a diagram showing erosion potential.)

Expansive Soils.

Most of Glenn County has expansive soils. Areas of low expansion potential occur in a small area between Orland and Hamilton City and along the Sacramento River. The remainder of the valley and foothill areas is classified as having high expansion potential. The western portion of the county is classified as having moderate expansion potential (Fugro-McClelland (West) Inc., 1991). (See Figure 4-5 in the *Public Safety Issue Paper* for a diagram showing the location of expansive soils.)

3.4 AIR QUALITY

3.4.1 Management of the Airshed and Pollutants of Importance

Air pollution control is administered in California by the federal, State, and local governments. Both the federal and State agencies (the U.S. Environmental Protection Agency and the California Air Resources Board) have established ambient air quality standards, based on

consideration of the health and welfare of the general public. Locally, the Glenn County Air Pollution Control District (APCD) is responsible for the planning and maintenance/attainment of these standards. The pollutants relevant to Glenn County for which standards have been established are summarized below.

Ozone.

Ozone is a highly reactive secondary gas pollutant that is toxic, colorless and has a pungent odor. Ozone is photochemically produced through complex chemical reactions of certain hydrocarbons and oxides of nitrogen (primary pollutants) in the presence of sunlight and temperatures above 78°F. In high concentrations, ozone and other photochemical oxidants can cause respiratory irritation and inhibit vegetation growth.

Oxides of nitrogen (NO_x) are of primary concern in Glenn County. High combustion temperatures in motor vehicle engines and industrial operations cause the formation of NO_x by combining nitrogen and oxygen. It is the essential component in the production of photochemical smog. NO_x is a key receptor of ultraviolet light which initiates the reactions that produce smog in the Sacramento Valley Air Basin.

Particulates

Atmospheric particulates or total suspended particulates (TSP) are solid matter that are suspended in the atmosphere. These TSPs are a mixture of natural and man-made materials such as soil particles, organic compounds, sulfates, aerosols, and nitrates. The National Primary Standards for TSP were formerly 75 micrograms per cubic meter for annual geometric mean and 260 micrograms per cubic meter for any 24-hour period.

The PM₁₀ standards refer to particulate matter equal to or less than 10 microns in diameter. This material cannot be adequately filtered by the human respiratory system. Inhaled atmospheric particulate can harm humans by directly injuring the respiratory tract and lungs, or by the reactive gases which were absorbed by the inhaled particulate. Suspended particulates also scatter and absorb sunlight, producing haze and reducing visibility.

3.4.2 Clean Air Legislation and Air Quality Standards

Air quality standards for Glenn County are set by both the federal government, through the Environmental Protection Agency (EPA), and by the State government, through the California Air Resources Board (CARB). California air quality standards have been consistently more stringent than federal air quality standards.

Even with the recently passed and signed Federal Clean Air Act of 1990 (FCAA), Glenn County has never exceeded federal air quality standards, including the standards for ozone and PM₁₀. Because of this, the EPA has labeled Glenn County as an area of "Prevention of Significant Deterioration" (PSD).

In 1988, the California Clean Air Act (CCAA) was passed. The act contains guidelines for the attainment of air quality goals that are much more stringent than the federal standards. The

CCAA expands the authority of both the CARB and the local Air Quality Management Districts (AQMDs), especially where a district has been found to be in "nonattainment" of state air quality standards. The CARB will regulate statewide sources of pollutants such as mobile sources and fuels, consumer products, paints and coatings, etc. The local districts will regulate sources within their districts such as stationary sources, indirect sources, agricultural sources, etc. Glenn County and the counties of the Northern Sacramento Valley (Butte, Colusa, Shasta, Sutter, Tehama and Yuba) have prepared and submitted to the State an Attainment Plan. This plan is described in Section 5.5.

Glenn County has been designated as "nonattainment" for exceedances of State ozone standards. As shown in Appendix C, the State one-hour ozone standard is 0.09 ppm (parts per million, by volume), not to be exceeded. Glenn County has also been designated as "nonattainment" for exceedances of State PM₁₀ standards. The State's 24-hour PM₁₀ standard is 50 µg/m³, not to be exceeded (Turek, 1991).

3.4.3 Baseline Air Quality

Generalized Description and Attainment Status

Generally, air quality in Glenn County is better than that required by federal standards. Glenn County's designation as a PSD zone is due mainly to two factors: the small number of urban-style pollution sources (motor vehicle traffic and industry) and insufficient air quality data from the EPA. The two factors are interrelated for PSD designated areas.

While Glenn County may not be subject to many of the air quality problems of urban areas, the county does experience rural-type pollution (dust and smoke) and pollution transport. Such problems stem from the county's agricultural economy which necessitates land cultivation and agricultural waste burning, and the prevailing wind patterns that transport pollutants from the Sacramento Metropolitan Area to the northern Sacramento Valley Air Basin.

Agricultural activities generate large quantities of dust, also known as PM₁₀. PM₁₀ consists of very small particles in the atmosphere resulting from many kinds of dust and fume-producing industrial and agricultural operations, from combustion, and from atmospheric photochemical reactions. Natural erosion processes also introduce particulates into the atmosphere; wind-raised dust is one such particulate source. Glenn County presently falls within the federal PM₁₀ standard, while exceeding that of the State. The "nonattainment" status for the State PM₁₀ standard is due to exceedances that occur mainly during the fall and spring. Probable sources are the agricultural burning of field crops and orchard waste, cultivating and harvesting of crops, and driving on unpaved roads. Since these activities occur year-round, there are PM₁₀ exceedances year-round.

Wildfire can be a major contributor to air quality degradation. Mendocino County Forest Management activities which have the potential to degrade air quality include prescribed burning, vehicle use, and operation of equipment. Prescribed burning is conducted in accordance with Glenn County APCD regulations regarding timing and acreage.

Glenn County has been designated as "attainment" for State Air Quality Standards for nitrogen dioxide, sulfur dioxide, sulfates and lead; and "unclassified" for carbon monoxide, hydrogen sulfide, and visibility-reducing particulates.

Because the formation of ozone requires Volatile Organic Compounds (VOCs), Oxides of Nitrogen (NOX), and sunlight (heat), exceedances of ozone standards occur mainly during the warmer months of May through October. However, the transport of ozone and/or its precursors from the Broader Sacramento Area to the upper Sacramento Valley adds to the upper valley's ozone problem. Such transport events occurred on at least 57 of the 63 days when the ozone standard was exceeded during 1986 through 1988 in the Upper Sacramento Valley (Turek, 1991).

As a result, in August, 1990, the ARB added the "Overwhelming" classification to describe transport contributions from the Broader Sacramento Area to the Upper Sacramento Valley on certain days. In summary, the ARB staff has recommended that the Broader Sacramento Area's transport be classified as "Overwhelming" on some days, "Significant" on some other days, and "Inconsequential" on others.

No California ozone standard exceedance (≥ 10 ppm) trend appears discernible. The number of California ozone exceedances varies annually. Further hindering this analysis, ARB removed ozone monitors from some northern Sacramento Valley counties during 1987-1988. Increasing numbers of ozone exceedances seem to occur near Sutter County, but a lack of monitors makes this a speculative conclusion. The dramatic downturn of California ozone exceedances during the 1989 season throughout the Northern Sacramento Valley Air Basin may indicate reduced ozone precursor emissions in this area. However, cooler summer temperatures may not make 1989 a representative year.

Air Quality Monitoring.

The California Air Resources Board (ARB) operates the only currently recognized air quality monitoring station in Glenn County, located on Villa Avenue in the City of Willows. The Willows station monitors particulate matter (PM₁₀), coefficient of haze (COH) and light scatter (visibility). The APCD recently purchased an ozone monitor which has been operated by APCD staff since mid-1990, which has recently been recognized as an official Air Resources Board ozone monitoring station.

Table 2-6 shows the number of times State and federal air quality standards were exceeded in Glenn County over the past five years, according to the limited data available from the Willows monitoring station. As shown in Table 2-6, the county does not show any significant trends in either improving or declining air quality (Fugro-McClelland (West) Inc., 1991).

3.5 HYDROLOGY

3.5.1 Water Quality

Water quality in the Colusa Basin is influenced by several factors, including rainfall patterns, quality of irrigation water supply, crop acreages, crop cultural practices (especially rice pesticide regulation and water recirculation), district water management (especially reuse), and soil

characteristics (State of California Department of Water Resources [DWR], Colusa Basin Appraisal, 1990). The Colusa Basin is just over one million acres of valley floor and foothill lands in the southwest part of the Sacramento Valley, including portions of Glenn, Colusa and Yolo counties. According to the DWR report, water quality in the Basin is generally good to fair because of the excellent quality of the main source, the Sacramento River, and most groundwater supplies are also considered excellent. Water quality concerns have developed at the lower end of the Basin, primarily related to agricultural chemicals. Point sources that drain into the Colusa Basin Drain in Glenn County, influencing water quality in the Drain, include wastewater treatment plant effluent from the City of Willows, and food-processing wastes and cooling water effluent from the Glenn Milk Producers Association.

A "Rice Herbicide Action Plan" was developed by the California Department of Food and Agriculture in 1984, using best management practices to reduce off-site movement of herbicides to the Drain and Sacramento River. This Plan has greatly reduced concentrations of rice herbicides in the Drain and River. According to the DWR report, the careful control and management of these chemicals appears to have eliminated most of the problems associated with their use.

Table 3.5-1

**TABLE 2-6
HISTORIC EXCEEDANCES OF AIR QUALITY STANDARDS
FOR SELECTED POLLUTANTS IN GLENN COUNTY**

(pphm)	1984			1985			1986			1987			1988			1989		
	≥10 a	>12 b	≥2 0	≥1 0	> 12	≥ 20	≥10	> 12	≥20	≥10	> 12	≥20	≥10	>12	≥20	≥10	>12	≥20
OZONE	1 ^c	0	0	5	0	0	2	0	0	9	0	0	N.M.	N.	N.	N.	N.	N.
	2 ^d	0	0	11	0	0	3	0	0	25	0	0	N.M.	N.	N.	N.	N.	N.
CARBON MONOXIDE	N.M.			N.M.			N.M.			N.M.			N.M.			N.M.		

(µg/cm)	1984				1985				1986				1987				1988				1989			
	>50 f	>10 0	>150 g	HIG H	>5 0	>10 0	>15 0	HIG H	>5 0	>10 0	>15 0	HIG H	>5 0	> 10 0	>15 0	HIG H	>5 0	> 10 0	>15 0	HIG H	>5 0	>10 0	>1 50	HIG H
PM-10	N. M.	N. M.	N.M.	N.M.	N. M.	N. M.	N. M.	N.M.	5	0	0	83	18	0	0	99	12	0	0	93	3	0	0	73

Footnotes:

- a. ≥10 pphm Exceeds California Standards
- b. >12 pphm Exceeds Federal Standards
- c. Number of Daily Exceedances for the Year
- d. Number of Hourly Exceedances for the Year
- e. N.M. = No Monitor
- f. >50 µg/cubic meter Exceeds California Standards
- g. >150 µg/cubic meter Exceeds Federal Standards

3.5.2 Flooding/Drainage

Some areas of the county adjacent to streams are subject to flooding and deposition of new soil material during heavy rainfall. The largest floodplain consists of a narrow area parallel to the Sacramento River. Dams control the flow of Stony Creek and the Sacramento River, preventing severe flooding. Annual flooding occurs within the levee system that borders the river. Hamilton City is only protected from the Sacramento River by a poorly maintained private levee. Many old meander scars and some oxbow lakes are found in the area.

There are two main basin areas within the county, the Colusa Basin and the Butte Sink, which lies east of the river. Both areas occasionally flood in winter because their terrain is nearly level and the soils are poorly drained. In many places they contain excess salts and alkali and have an intermittent high water table. In large areas, drainage ditches have been constructed and the soils partly reclaimed.

Most of the mountains and foothills drain well, but parts of the intervening valleys drain poorly. The mountain streams have a dendritic, or tree-like, pattern. The Black Butte River, Corbin Creek, and many other streams drain the area west of the crest of the Coast Ranges. These streams flow into the Eel River, one of the major streams draining the northern part of the Coast Ranges.

Small creeks drain the mountains east of the crest of the Coast Range. These creeks empty into Stony Creek, which flows northeast through the foothills into the Sacramento Valley drainage basin. Drainage in the foothills is by intermittent streams that flow only during the wet winter and spring months. Among the minor streams that drain the foothills are French, Hunter, Logan, Walker, Willow and Wilson Creeks. These streams flow east and southward into the Colusa Basin and rarely reach the Sacramento River (Fugro-McClelland (West) Inc., 1991).

Flood hazard areas in Glenn County have been mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRM). A composite map of flood hazard areas, based on the FEMA FIRM maps is included in the *Public Safety Issue Paper* as Figure 6-1.

Two storm drain maintenance districts and a County Service Area have been formed in Glenn County to dispose of storm waters. These entities are described below.

Storm Drain Maintenance District #1.

Storm Drain Maintenance District #1 has an independent Board of Directors and staff, and provides service to an area southeast of Orland. The District maintains a natural drain (which runs southeast through the District) as needed.

North Willows County Service Area (formerly Storm Drain Maintenance District #2).

North Willows County Service Area provides service to an area northeast of Willows. This CSA, which is administered by the County Public Works Department, maintains natural drains and a pipeline system with a pump. The CSA has three long-range plans under consideration:

- Diversion of some drainage west of I-5.
- Development of standby power for the pumps.

Storm Drain Maintenance District #3.

Storm Drain Maintenance District #3 is governed by the Board of Supervisors and provides service to an area located between the Kanawha Water District and the Willows Airport. The District is administered by the County Public Works Department, which maintains a natural drain that traverses the area. The water then drains east across the south end of the Willows Airport. The Kanawha Water District cooperates with the District to maintain the drain (Glenn County General Plan, Land Use Element, 1985).

3.6 EXISTING NOISE ENVIRONMENT

The State Noise Element Guidelines require that major noise sources within the county be identified and quantified by preparing generalized noise contours for current and projected conditions. Significant noise sources in Glenn County include traffic on major roadways and highways, railroad operations, airports, and representative industrial activities and fixed noise sources. Please refer to Appendix D for definitions of acoustical terminology used in this Section.

Noise modeling techniques and noise measurements were used to develop generalized L_{dn} noise contours for the major roadways, railroads and fixed noise sources, where practical, in Glenn County for existing (1991) conditions.

Noise modeling techniques use source-specific data including average levels of activity, hours of operation, seasonal fluctuations, and average levels of noise from source operations. Modeling methods have been developed for a number of environmental noise sources including roadways, railroad line operations, railroad yard operations, industrial plants and airports. Such methods produce reliable results as long as data inputs and assumptions are valid. The modeling methods used closely follow recommendations made by the State Office of Noise Control, and were supplemented where appropriate by field-measured noise level data to account for local conditions. The noise exposure contours are based upon annual average conditions. Because local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location, the noise contours should not be considered site-specific.

A community noise survey was conducted to describe existing noise levels in noise-sensitive areas within Glenn County so that noise level performance standards could be developed to maintain an acceptable noise environment.

3.6.1 Roadways

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop L_{dn} contours for all highways and major roadways in the unincorporated portion of Glenn County. The FHWA Model is the analytical method presently favored for traffic noise prediction by most State and local agencies, including Caltrans. The current version of the model is based upon the California Vehicle Noise (CALVENO) noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and to adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Short-term (15-minute) traffic noise measurements and concurrent traffic counts were conducted for traffic on Interstate 5 and State Routes 162, 45 and 32 (see Figure 3-1) on May 23-24, 1991. The noise measurements were made to evaluate the noise exposure due to traffic on those roadways. The purpose of the traffic noise level measurements was to determine the accuracy of the FHWA model in describing the existing noise environment at the site. Noise measurement results were compared to the FHWA model results by entering the observed traffic volumes, speed and distance as inputs to the FHWA model.

Traffic data representing annual average traffic volumes for existing conditions were obtained from Caltrans and Dowling Associates traffic consultants as summarized in Appendix E. Day/night traffic distribution and truck mix were based upon Caltrans and file data. Using these data and the FHWA methodology, traffic noise levels as defined by Ldn were calculated for existing (1990) traffic volumes. Distances from the centerlines of selected roadways to the Ldn contours are summarized in Table 3-1. These calculations do not include consideration of shielding caused by local buildings or topographical features, so the distances reported in Table 3-1 are worst-case estimates of noise exposure along roadways in the county.

Existing traffic volumes were not available for all major county roads. However, Figure 3-2, prepared using the FHWA Model, may be used to estimate the distance to the 60 dB Ldn contour for projected volumes of arterial traffic. For arterial traffic, the predicted distance to the 60 dB Ldn contour is determined by the Average Daily Traffic Volume (ADT) and the posted speed limit. Ldn contours derived from Figure 3-2 are only indicators of potential noise conflicts, requiring more detailed analysis to determine traffic noise levels at any given location.

3.6.2 Railroads

Railroad activity in Glenn County includes freight trains on the Southern Pacific Transportation Company (SPTCo) trackage which travels north/south through the county. In addition, there are two spurs from the mainline which service the Holly Sugar Corporation in Hamilton City and the Manville Building Insulation Plant located west of the City of Willows.

SPTCo officials at the SPTCo Northern Train Dispatchers Office report that approximately five operations per day occur on the mainline through the county. The trains are distributed on a random basis throughout the day. Approximately one train per day serves the Holly Sugar Corporation and one train per week uses the Manville Plant spur. There are no reported Amtrak operations through the County.

Railroad noise measurements were conducted within the county on June 5-6, 1991 for a 24-hour period. The measurements were conducted to determine the contribution of SPTCo railroad operations to the area noise environment. The monitoring site was located approximately 50 feet from the centerline of the tracks.

The purpose of the noise level measurements was to determine a typical sound exposure level (SEL) for railroad line operations in the county, accounting for the effects of local topography, climate, travel speed and other factors which may affect noise generation. The data thus derived could then be compared to other file data for railroad operational noise levels to better describe the railroad noise environment as it affects the area noise environment, and an annual average

L_{dn} could be calculated. Locomotive noise was the major contributor to railroad noise levels as defined by SEL. At 50 feet from the tracks, the average SEL for freight train operations was observed to be 101.0 dB, and the average maximum (L_{max}) measured sound level was 85.3 dB.

Based upon the noise level data and methods of calculation described in Table 3-2, the L_{dn} at a distance of 50 feet from the railroad track centerline is 65 dB. Predicted distances to the 60 and 65 dB L_{dn} contours are shown in Table 3-2.

3.6.3 Fixed Noise Sources

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by Federal and State employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses.

The following descriptions of existing fixed noise sources in Glenn County are intended to be representative of the relative noise impacts of such uses, and to identify specific noise sources which should be considered in the review of development proposals.

Glenn Growers Rice Drying Facility:

Rice is one of the major crops produced in Glenn County. Glenn Growers is located in Four Corners, and is one of a number of rice drying industrial facilities within Glenn County. Charles Keeney of Glenn Growers indicated that the plant operates from 8:00 a.m. to 5:00 p.m. five days per week. However, during the period from September 15 to November 1, the plant is in full operation, operating 24 hours per day, seven days per week.

The primary noise sources associated with the Glenn Growers operation, and most grain drying facilities, are elevators, screw conveyors and dryer motors. When the field work was conducted for the Glenn County General Plan, the Glenn Growers facility was not in full operation. However, file data from the PIRMI rice drying plant in Woodland collected during October 1987 indicates that the average noise level of a rice drying operation when the blowers and conveyors are operating is 70.5 dB at a distance of approximately 50 feet from the facility. The projected location to the 50 dB Leq noise level contour associated with rice drying facilities is approximately 100 feet.

Manville Industrial Facility:

The Manville industrial facility, which is located west of the City of Willows, produces home insulation materials. According to Ronald Greenberg of Manville, the facility operates 24 hours per day, 365 days per year. The major noise sources include large fans which are used for manufacturing, truck traffic to and from the site (approximately 70 heavy trucks per day), and the railroad spur which accommodates one train per week.

Using the FHWA model, the L_{dn} associated with the truck traffic to and from the site is 59.3 dB at a distance of 50 feet from the access road. This is based upon an average of 70 heavy trucks per day (140 one-way trips), at an average speed of 35 mph, and a day/night split of 85%/15%.

Noise level data was collected from the Manville plant on May 23, 1991. The average sound level associated with the industrial processing was 57.5 dB at a distance of approximately 750 feet. The primary noise source was blowers. The approximate location of the 50 dB L_{eq} contour for industrial processing at the Manville plant is approximately 1,775 feet.

Holly Sugar Corporation:

The Holly Sugar Corporation is located on East 1st Street in Hamilton City. Discussions with Norman Bates, the factory manager at Holly Sugar Corporation, indicate that the major noise sources are associated with truck traffic, conveyor systems, centrifugal units housed inside on-site buildings, heavy equipment and the train which serves the plant once per day. The Holly Sugar Corporation operates on a seasonal basis, with the peak seasons occurring approximately six months during a year. During peak operations, the plant operates 24 hours per day; during the non-peak seasons, the plant operates eight hours per day.

During the time of the field investigations, there were no evident noise sources associated with the Holly Sugar plant processing. The plant manager did not give an indication on the amount of truck traffic to and from the site, and therefore an L_{dn} value associated with the truck traffic was not calculated.

Although there are no noise level data for the Holly Sugar Corporation, it should be noted that this facility could potentially produce noise levels which could be considered unacceptable at nearby noise sensitive receivers.

Sand and Gravel Operations:

There are numerous rock and sand and gravel operations located in Glenn County. The operations include the Baldwin Contracting Company Stony Creek Sand and Gravel Plant, Valley Rock Products Inc., and Martin Sand and Gravel. These facilities typically operate between the hours of 8:00 a.m. and 5:00 p.m. The primary noise sources associated with sand and gravel operations include truck traffic to and from the site, front loaders, warning beepers, belly scrapers, conveyors, and jaw and cone crushers.

The overall noise level associated with these types of operations will vary based upon the size of the operation. It should be noted that these types of operations are not considered to be compatible with noise sensitive land uses.

Miscellaneous Farming Operations:

Farming operations are common throughout Glenn County, especially on the Valley floor. Some of the more common noise sources associated with farming operations include tractors, harvesting equipment and spray equipment. Examples of noise levels produced by such equipment are shown in Table 3-3.

The noise levels described in Table 3-3 do not include all types of farm equipment, but represent a range of levels which may be expected. A general rule is that a diesel engine will produce noise

levels of 75-85 dB at approximately 50 feet. Although farming operations occasionally generate a significant noise level, such levels generally do not last more than a few hours at a given location unless a stationary piece of equipment such as a pump motor (or engine) is involved. It should be noted that nighttime operation of farming equipment adjacent to residential areas may be perceived as annoying, particularly if sleep is disrupted.

Table 3.6-1

**TABLE 3-3
TYPICAL NOISE LEVELS
ASSOCIATED WITH FARM EQUIPMENT**

Equipment	Distance (feet)	Sound Level, dB
Diesel Wheel Tractor		
-with Disc	150	72-75
-with Furrow	50	69-79
Weed Sprayer (1-cylinder)	50	74-75
Aero Fan 391 Speed Sprayer	200	74-76

Source: Brown-Buntin Associates, Inc.

Airport Noise

There are two airports located within Glenn County, the Willows Glenn County Airport and the Orland Haigh Field Airport.

- Willows Glenn County Airport:

The Willows Glenn County Airport is a public use airport which is operated by Glenn County. According to the 1990 California Aviation System Plan, there are 56 based aircraft at the airport with a total of 30,000 annual operations. The airport has two runways with headings of 13/31 and 16/34 and runway lengths of 4210 feet and 4506 feet respectively.

Glenn County adopted a Comprehensive Airport Land Use Plan (CLUP) in May 1990. The CLUP states that there are 49 airplanes and two helicopters based at the Willows Glenn County Airport. There has been virtually no growth at the airport since 1978. However, the CLUP anticipates that, as the Willows area grows, the number of aircraft will increase. Existing and future (Year 2000) 60 dB CNEL contours were developed by Wadell Engineering for the CLUP. These CNEL contours are shown in Figure 3-3.

- Orland Haigh Field Airport:

The Orland Haigh Field Airport is a public use airport which is operated by Glenn County. According to the 1990 California Aviation System Plan, there are 75 based aircraft at the airport with a total of 20,000 annual operations. The airport has one runway with a heading of 15/33 and a runway length of 5160 feet.

Glenn County adopted a Comprehensive Airport Land Use Plan (CLUP) in February 1991. The CLUP states that in 1988 there were 55 aircraft based at the Orland Haigh Field Airport, with the majority of aircraft being single-engine airplanes. The CLUP forecasts a total of 80 based

aircraft at the Orland Haigh Field Airport in the year 2008. Existing (Year 1988) 55 dB CNEL, and future (Year 2008) 55 and 60 dB CNEL contours were developed by Hodges and Shutt for the CLUP. These CNEL contours are shown in Figure 3-4.

- Crop Dusters:

Glenn County staff has expressed concern about the noise associated with crop dusting activities. Aerial application aircraft are frequently used to spray crops or to spread seed or fertilizers. There are many types of fixed or rotary wing aircraft used for aerial application, including aircraft with radial and turbine engines, and 2- or 3-bladed propellers. Most of the noise impacts generated by aerial application aircraft occur as the result of propeller noise and the low altitude at which the aircraft are typically flown. One of the most widely used aerial application aircraft in the Glenn County area is the Grumman Ag Cat.

To characterize noise impacts associated with aerial application aircraft, file data was utilized which was collected for the Grumman Ag Cat aircraft at Alta Airport in Tulare County. Consultation with aerial application aircraft operators, field observations, and noise measurements indicated that it was not practical, nor representative of perceived noise impacts, to prepare CNEL contours for frequent operations by aerial application aircraft. This is because aerial application operations generally follow the shortest possible route to the application site at a minimal altitude, meaning that there are no typical flight tracks. Typical "ferry" altitudes range from 50 to 150 feet based upon information previously collected from crop dusting companies.

Noise level data collected at the Alta Airport in Tulare County for Ag Cat operations indicate that sideline noise levels at a distance of 1000 feet during departures were about 78 dB L_{max} and 85 dB SEL. Noise levels directly overhead with an estimated altitude of 150 feet were about 103 dB L_{max} and 106 dB SEL.

Crop dusting activities generally occur during the early morning hours, when people may be sleeping. Single event noise levels from aircraft arrivals, departures and overflights may cause sleep disturbance at nearby residences. The noise level at which a sleep stage change or interruption occurs is highly individualized. A person's level of sleep is dependent on many factors including fatigue, exhaustion, stress, room temperature, bed comfort and noise level in the room. For these reasons, a single number criterion for the evaluation of sleep interference has not been established.

According to the Noise Effects Handbook published by the National Association of Noise Control Officials, behavioral awakening will most likely occur with noise levels of 70 dB or above. However, duration of the noise exposure, background noise levels and type of sound generated by the source are all important factors.

Criteria pertaining to sleep disturbance are displayed in Figure 3-5. These graphs, which were adapted from a summary and analysis of experimental sleep data as related to noise exposure, show the relationship between frequency of response (disruption or awakening) and the sound level of an intrusive noise.

3.6.4 Community Noise Survey

A community noise survey was conducted to document noise exposure in areas of the county containing noise sensitive land uses. For that purpose, noise sensitive land uses in Glenn County were considered to include residential areas, parks, schools and rural areas. Noise monitoring sites were selected to be representative of typical conditions in the county.

Short-term noise monitoring was conducted on May 23-24, 1991. Each site was monitored three different times during the day and night so that valid estimates of L_{dn} could be prepared.

Two long-term noise monitoring sites were established in Glenn County to record day-night statistical trends. The data collected included the L_{eq} and other statistical descriptors. Noise monitoring sites, measured noise levels and estimated L_{dn} values at each site are summarized in Table 3-4. Monitoring sites are shown by Figure 3-1.

The community noise survey results indicate that typical noise levels in noise sensitive areas of Glenn County are in the range of 48 dB to 60 dB L_{dn} . Noise from traffic on local roadways and neighborhood activities is the controlling factor for background noise levels in the majority of the county. However, in the predominantly agricultural areas, farming equipment, crop dusting activities and the sound of crickets during the evening and nighttime hours were major contributors to background noise levels. In general, the areas of the Glenn County which contain noise sensitive uses are relatively quiet.

The 24-hour noise monitoring data in Figure 3-6 show that ambient noise levels reach a minimum during the hours of 1:00 to 5:00 a.m., increasing during the daytime hours as a function of increased traffic and other human activities.

3.7 LIGHT AND GLARE

A nighttime visual survey of the County reveals no unusual sources of light and glare. Noteworthy sources of ambient light include traffic on I-5, high school stadiums when in use, and outdoor lighting of industrial and commercial developments.

3.8 SOLID AND HAZARDOUS WASTE

Solid waste in Glenn County is collected by franchised haulers, with rates set by the Board of Supervisors for the unincorporated area and by the City Councils in the cities of Willows and Orland. There is one sanitary landfill in the county, located on Road 33, west of the community of Artois. The landfill is a 195+ acre site which is leased by the County of Glenn for 50 years. It is a Class III facility (a facility at which protection is provided to water quality from municipal, industrial and agricultural wastes).

The landfill is operated by the County under a Joint Powers Agreement with the cities of Orland and Willows. According to the Glenn County Solid Waste Management Plan (COSWMP), the site has sufficient capacity until 2010, and will be used for grazing when it can no longer be operated as a landfill. No new facilities are planned in the county, and it is anticipated that additional land will be purchased in the immediate vicinity of the existing site for expansion purposes.

There is a small solid waste disposal site near Elk Creek operated by Louisiana Pacific for disposal of sawmill wastes. This site, which has been in operation since 1972, is regulated by waste discharge requirements issued by the Regional Water Quality Control Board. There is also an agricultural waste drying site located at the Orland Haigh Field Airport.

According to the COSWMP, opportunities for resource recovery are limited in Glenn County because most materials must be hauled to locations outside the county. Hazardous waste has been described, quantified and projected in the Glenn County Hazardous Waste Management Plan (CHWMP). There are currently no industries in the county authorized to provide onsite treatment of hazardous wastes, and there are no hazardous waste treatment, storage or disposal facilities located in Glenn County. The Plan also identifies known contaminated sites within the county. The two major transportation corridors through the county, Interstate 5 and the railroad, as well as the other State highways, are routes for movement of large quantities of hazardous materials.

Two drilling mud disposal sites are located south of Orland in Glenn County which accept spent non-hazardous drilling mud from gas well drilling operations in the region. These disposal sites are regulated by Glenn County through the use permit process and by the Regional Water Quality Control Board. Four injection wells are also located in Glenn County for "production water", which is salt water discharged from gas wells. Injection is permitted only into salt water bearing formations. These wells are regulated by the State of California Division of Oil and Gas and by Glenn County.

3.9 ANALYSIS OF ISSUES, OPPORTUNITIES AND CONSTRAINTS

Facilities and services for protecting public safety in Glenn County have, for the most part, proven satisfactory up to this point. As in other California counties, County revenues available to fund safety-related services have suffered since the passage of Proposition 13 in 1978. The moderate growth rate which the County has experienced since that time (1.57% annually) has not overburdened existing service delivery systems.

New State regulations with which the County must comply, higher expectations of local government by residents, and increasing public environmental concerns may require changes in the County's approach to public protection. The challenge of funding new programs and facilities remains. The General Plan revision process must involve policy decisions regarding the interrelationship and balance between land use and development patterns and the protection of the public health, safety and welfare.

Some factors to be considered in the General Plan revision process include:

Law Enforcement and Public Safety

- If the County continues to grow, greater resources will need to be directed to law enforcement. Although not an absolute constraint, the implications of growth for the County's law enforcement capabilities and its financial resources must be factored into the planning process.

- Future land use planning can attempt to discourage criminal activities by consciously considering the implications for law enforcement of planned development.
- Alternatives to the present, primarily volunteer fire protection service may become necessary as training becomes more complex and as growth occurs.
- The General Plan revision process affords an opportunity to coordinate public safety issues with the U.S. Forest Service for areas adjacent to the Mendocino National Forest.

Geologic Hazards

- If it is assumed that growth is more likely to occur in the eastern valley portion of Glenn County, as compared to the foothill and mountainous areas, the primary geologic hazards which must be addressed are subsidence and expansive soils.
- Areas of potential subsidence may not always be possible to avoid for certain facilities (such as transmission lines or pipelines that must cross such areas). Proposed structures must be designed and constructed to withstand any potential subsidence without danger of failure.
- Expansive soils are common throughout California, and while they present potential structural problems for proposed buildings and other facilities, a variety of standard design and construction methods exists to strengthen structures against the stresses caused by expansive soils.
- Areas of unstable soil that may be subject to landslide obviously are not suitable sites for any land use involving buildings or structures.
- Soil erosion is possible during the site preparation, grading, and revegetation phases of most construction projects, but like subsidence, a variety of standard protective and revegetation measures exists that can minimize erosion from new development.

Air Quality

- The measures that will be necessary to achieve compliance with the California Clean Air Act (e.g. transportation control measures, indirect source review) may require major changes in land use planning in Glenn County as well as the rest of California. The design of such methods to suit the needs of a rural, agricultural county, rather than a metropolitan area, will be imperative.
- The relatively good air quality and visibility existing in Glenn County is an asset worth preserving and protecting. The designation as a nonattainment area for ozone and PM₁₀ mandates planning which is responsible to improvement of air quality, and also focuses attention upon a critical quality of life issue which should be addressed in the General Plan.
- Proposed State legislation to reduce rice burning may have a major effect on agricultural practices in Glenn County.

- The issue of NO_x emissions from gas well compressors may need to be addressed as part of the General Plan and/or air quality planning process.
- It is likely that the automobile will continue to be the major form of transportation in Glenn County, given the low population density and rural, agricultural nature of the county. However, the County can take steps in its planning to reduce numbers of automobile trips through careful siting of any new retail and employment centers in proximity to housing and infilling of bypassed land.

Noise

- The relatively quiet noise environment is primarily impacted by traffic, agricultural operations, sand and gravel extraction, and airport noise (particularly crop dusting operations).
- The General Plan (Noise Element) can establish policies and standards which assure that new noise conflicts are not created. This can be accomplished by locating new "noise sensitive" land uses (e.g. residences, schools, hospitals) away from "noise generating" land uses (e.g. arterial streets, airports, industries), and vice versa.
- It is assumed, based on its recent adoption of Comprehensive Airport Land Use Plans, that the County has an interest in maintaining compatible land uses in the vicinity of the two county airports.

Flooding

- Periodic flooding presents a significant constraint to urban development in Willows and other Valley portions of the county.
- The accuracy of the FEMA flood hazard maps has been questioned by county officials; if areas are designated as flood zones which are not flood prone, the designation places unfair constraints on construction.
- The General Plan can identify and set aside areas for drainage outfalls for urban areas.
- The low priority placed upon construction of flood control facilities in Glenn County (due to low cost/benefit ratios assigned by State agencies) may preclude urban development of some areas of the county.

Solid and Hazardous Waste

- The General Plan should recognize existing solid waste disposal facilities and be consistent with other County solid waste planning efforts.

- While adequate facilities for solid waste disposal exist and currently do not present any constraints, compliance with recent State laws and regulations may prove problematic. Examples include State-imposed resource recovery goals and possible curtailment of septage disposal.
- The General Plan can plan for sites for composting operations near the cities of Willows and Orland and/or in conjunction with the existing landfill.
- Primary local issues with regard to hazardous waste include its transport through the county and disposal of drilling mud.
- Production water injection wells present land use conflicts in proximity to urban areas.

4.0 COMMUNITY DEVELOPMENT

4.1 POPULATION

Since 1980 the population of Glenn County has increased by 18.5 percent, at an annual average rate of 1.57 percent, as shown in Table 4-1. This represents a comparatively modest rate of growth, as compared to the Sacramento region growth rate of 33 percent for the same period. However, the annual growth rate for the last three years has shown a substantial increase compared to the first part of the decade. The two incorporated cities in Glenn County, Willows and Orland, have both experienced 25 percent growth rates over the 10-year period. The population is distributed between the two incorporated cities and the unincorporated area as shown in Table 4-2.

According to the 1990 census, the ethnic composition of Glenn County is 74.4 percent white; .5 percent black; 1.8 percent American Indian, Eskimo and Aleut; 3.1 percent Asian and Pacific Islander; and 20.0 percent Hispanic. There is a significant concentration of Native Americans at the Grindstone Indian Reservation located near Elk Creek.

The 1980 and 1990 population of communities in Glenn County, including the cities of Willows and Orland, and the unincorporated community of Hamilton City, is contained in Table 4-3.

The California State University, Chico Center for Economic Development and Planning has prepared population projections for Glenn County which are shown in Table 4-4. The projected population increase is attributed more heavily to births (natural increase) than to net migration into Glenn County.

Table 4.1-1

**TABLE 4-1
GLENN COUNTY POPULATION, 1980-1991**

YEAR	TOTAL POPULATION	PERCENT INCREASE %
1980	21,350	
1981	21,750	1.9
1982	22,100	1.6
1983	22,450	1.6

1984	22,600	0.7
1985	22,700	0.4
1986	22,850	0.7
1987	22,900	0.2
1988	23,150	1.1
1989	23,700	2.4
1990	24,550	3.6
1991	25,300	3.1
Total Population Increase, 1980-1991		3,950
Annual Average Increase, 1980-1991		1.57%

Source: Glenn County Profile, 1991.

Table 4.1-2

**TABLE 4-2
GLENN COUNTY POPULATION DISTRIBUTION, 1991**

JURISDICTION	POPULATION	PERCENT OF TOTAL
Unincorporated Area	14,050	55.5
City of Orland	5,175	20.4
City of Willows	6,100	24.1
Total	25,325	100.0%

Source: Glenn County Profile, 1991.

Table 4.1-3

**TABLE 4-3
POPULATION OF GLENN COUNTY COMMUNITIES
1980-1990**

JURISDICTION	POPULATION		PERCENT CHANGE
	1980	1990	
City of Orland	4031	5052	+25.3
City of Willows	4777	5988	+25.4
Hamilton City	1337	1811	+35.5

Source: U.S. Census data, 1980, 1990.

Table 4.1-4

**TABLE 4-4
PROJECTED GLENN COUNTY POPULATION, 1990-2005**

YEAR	TOTAL POPULATION	PERCENT INCREASE
1990	25,000	
1995	27,100	+8.4
2000	28,800	+6.3
2005	30,400	+5.6
Total Population Increase		5,400
Annual Average Increase		1.35%

Source: Glenn County Profile, 1991.

4.2 LAND USE

The predominant land uses in Glenn County are agriculture, forests and open space/grazing lands. Land used for farming and grazing purposes totals nearly 500,000 acres, of which approximately half is grazing land in the foothill areas, and half is farming, predominantly on the Valley floor. The mountainous area is primarily forest land, including approximately 200,000 acres within the Mendocino National Forest. Generalized land use for Glenn County is depicted on Figure 4-1.

The two incorporated cities in Glenn County, Willows and Orland, are located on the Valley floor. These cities represent the two largest urbanized areas in the county. Land use information has been compiled for the unincorporated communities of Bayliss, Glenn, Ord Bend, Capay, Codora Four Corners, Artois, Hamilton City, Butte City, North Willows, Northeast Willows and West Orland from county records and a field check conducted in June, 1991. Land use in each of these communities is summarized below.

Artois

The community of Artois is located south of Road 33, between Walker Creek and the Southern Pacific Transportation Company (SPTCo) tracks (see Figure 4-2). There are approximately 57 housing units in the community of Artois, of which 7 are mobilehomes. Water service is supplied by the Artois Community Services District, and wastewater disposal is provided by individual septic tanks. An industrial area is located east of the SPTCo tracks, which consists of grain storage and a sawmill. There are a few small commercial uses, a fire station and a post office located in Artois (see Table 4-5).

Bayliss

Bayliss is located at the intersection of Road W and Road 39 (see Figure 4-3). It contains 19 housing units, of which 2 are mobilehomes, and a meeting and training facility for the Volunteer Fire Department (see Table 4-6). Water and wastewater disposal are provided by individual wells and septic tanks, respectively.

Blue Gum Area

There are 6 single family dwellings and 1 mobilehome in the Blue Gum area, which is located on the west side of old Highway 99, Walker Creek, and the SPTCo tracks (see Figure 4-4). The area also contains highway commercial uses (motel and restaurant) (see Table 4-7). Water and wastewater disposal are provided by individual wells and septic tanks, respectively.

Table 4.2-1

**TABLE 4-5
EXISTING LAND USE
COMMUNITY OF ARTOIS**

Land Use Category	Acres	Percent
Residential	21.5	44.3
Church	.5	1.0

Commercial	4	8.3
Industrial	22	45.4
Public	.5	1.0
Total	48.5	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-2

**TABLE 4-6
EXISTING LAND USE
COMMUNITY OF BAYLISS**

Land Use Category	Acres	Percent
Residential	26.2	83.2
Commercial	.5	1.6
Public	4.8	15.2
Total	31.5	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-3

**TABLE 4-7
EXISTING LAND USE
BLUE GUM AREA**

Land Use Category	Acres	Percent
Residential	4	11.4
Commercial	10	28.6
Industrial	15	42.9
Public	6	17.1
Total	35	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Butte City

Butte City is located on the east side of the Sacramento River, south of Highway 162 (see Figure 4-5). There are approximately 46 housing units in Butte City, of which 13 are mobilehomes. Water service is supplied by the Butte City Community Services District, and wastewater disposal is provided by individual septic tanks. There are a few small commercial uses, a fire station and a post office located in Butte City, as well as a County boat ramp on the Sacramento River near the community (see Table 4-8).

Capay Area

The Capay area is located adjacent to the Sacramento River and the Tehama and Butte County boundaries (see Figure 4-6). There are approximately 131 housing units in the Capay area, of which 19 are mobilehomes. Water is supplied by individual wells, and wastewater disposal is provided by individual septic tanks. Although there are a few small commercial uses, this community is predominantly rural residential (see Table 4-9).

Table 4.2-4

**TABLE 4-8
EXISTING LAND USE
COMMUNITY OF BUTTE CITY**

Land Use Category	Acres	Percent
Residential	8	78.4
Church	.2	2.0
Commercial	.6	5.9
Industrial	1	9.8
Public	.4	3.9
Total	10.2	100.0

Source:Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-5

**TABLE 4-9
EXISTING LAND USE
CAPAY AREA**

Land Use Category	Acres	Percent
Residential	1505	99.6
School	3	.2
Church	1	.1
Commercial	1.5	.1
Total	1509.5	100.0

Source:Glenn County Planning Department; QUAD Consultants, 1991.

Codora Four Corners

Codora Four Corners is located at the intersection of Road 61 and State Highway 45 (see Figure 4-7). There are 12 housing units in Codora Four Corners, of which 5 are mobilehomes. Water is supplied by individual wells, and wastewater disposal is provided by individual septic tanks. There is one commercial use and four industrial uses in Codora Four Corners (see Table 4-10).

Table 4.2-6

**TABLE 4-10
EXISTING LAND USE
COMMUNITY OF CODORA FOUR CORNERS**

Land Use Category	Acres	Percent
Residential	14	35.4
Commercial	.5	1.3
Industrial	25	63.3
Total	39.5	100.0

Source:Glenn County Planning Department; QUAD Consultants, 1991.

Elk Creek

Elk Creek is located near Stony Gorge Reservoir in the foothill area of Glenn County along Road 306 west of Stony Creek (see Figure 4-8). There are approximately 94 housing units in the community of Elk Creek, of which 23 are mobilehomes. Water service is supplied by the Elk Creek Community Services District from the reservoir, and wastewater disposal is provided by individual septic tanks. There is an industrial area owned by Louisiana Pacific Lumber Company and a small commercial area, as well as a post office, fire station, elementary school and high school (see Table 4-11).

Table 4.2-7

**TABLE 4-11
EXISTING LAND USE
COMMUNITY OF ELK CREEK**

Land Use Category	Acres	Percent
Residential	78	71.7
School	15	13.8
Church	.8	.7
Commercial	2	1.8
Public	13	11.9
Total	108.8	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Glenn

The community of Glenn is located at the intersection of Highway 162 and Highway 45 (see Figure 4-9). There are 13 housing units in the community of Glenn, of which 2 are mobilehomes (see Table 4-12). Water is supplied by individual wells, and wastewater disposal is provided by individual septic tanks.

Hamilton City

Hamilton City is the largest community in Glenn County which is not adjacent to an incorporated city. It is bounded by the Glenn County Irrigation Canal on the west, Highway 32 on the north, Sacramento Avenue on the east and First Street on the South (see Figure 4-10). There are approximately 484 housing units in Hamilton City, of which 113 are mobilehomes. Water is supplied by California Water Service Company, and wastewater treatment is provided by the Hamilton City Community Services District, which operates a sewer treatment plant for the community.

Industrial land uses in Hamilton City are located adjacent to the SPTCo tracks and include the Sunkist packing plant and the Holly Sugar Plant. There is a central commercial area on Main Street and a highway commercial area along the south side of Highway 32. The community also contains a post office, elementary school, high school, a community hall, a park and a fire station (see Table 4-13).

Table 4.2-8

**TABLE 4-12
EXISTING LAND USE**

COMMUNITY OF GLENN

Land Use Category	Acres	Percent
Residential	1.2	81.6
Church	.2	13.6
Public	.07	4.8
Total+	1.47	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Ord Bend

Ord Bend is located south of Ord Ferry Road 32, primarily on the east side of Highway 45 (see Figure 4-11). There are 13 housing units, of which 1 is a mobilehome, and a few small commercial uses in Ord Bend (see Table 4-14). Water and wastewater disposal are provided by individual wells and septic tanks, respectively.

North East Willows

North East Willows is an unincorporated area adjacent to the City of Willows, and bounded by Road 49 1/2 on the north, the Glenn-Colusa Canal on the east, Highway 162 on the south and the SPTCo tracks on the west (see Figure 4-12). There are approximately 261 housing units in this area, of which 44 are mobilehomes, and a few commercial uses located primarily along Colusa Street (see Table 4-15). Water service is supplied by California Water Service Company, and wastewater disposal is provided by Northeast Willows Community Services District, which contracts for sewage disposal with the City of Willows, and individual septic tanks.

Table 4.2-9

**TABLE 4-13
EXISTING LAND USE
COMMUNITY OF HAMILTON CITY**

Land Use Category	Acres	Percent
Residential	100	74.7
School	5	3.7
Church	.8	.6
Commercial	7.5	5.6
Industrial	7.5	5.6
Public	6	4.5
Mobilehome Park	7	5.2
Total	133.8	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-10

**TABLE 4-14
EXISTING LAND USE
COMMUNITY OF ORD BEND**

Land Use Category	Acres	Percent
Residential	.78	19.4
Church	.18	4.5
Commercial	.07	1.7
Industrial	3	74.4
Total	4.03	100.0

Source:Glenn County Planning Department; QUAD Consultants, 1991.

North Willows Area

North Willows is also adjacent of the City of Willows, and is located north of the SPTCo tracks and Road 49 1/2, south of Road 45. North of Road 48, the area is on the west side of County Road 99W; south of Road 48, it includes area both east and west of County Road 99W (see Figure 4-13). There are approximately 226 housing units in North Willows, of which 56 are mobilehomes. There are also commercial uses in the area, primarily along County Road 99W, as well as three private school facilities (one preschool and two religious school sites) (see Table 4-16). Water is supplied by individual wells, and wastewater disposal is provided by individual septic tanks.

West Orland

West Orland is located adjacent to the City of Orland, west of Interstate 5 and northeast of Road 200 (see Figure 4-14). A specific plan (West Orland Specific Plan) has been adopted for the area by the Board of Supervisors. There are approximately 235 housing units in West Orland, including 33 mobilehomes, as well as a few small commercial uses, two recreational vehicle parks and a mobile home park (see Table 4-17). Water service is supplied by Black Butte Water company, and wastewater disposal is provided by individual septic tanks.

Table 4.2-11

**TABLE 4-15
EXISTING LAND USE
COMMUNITY OF NORTH EAST WILLOWS**

Land Use Category	Acres	Percent
Residential	74	82.1
School	.14	.2
Church	2	2.2
Commercial	7	7.8
Public	7	7.8
Total	90.14	100.0

Source:Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-12

**TABLE 4-16
EXISTING LAND USE
NORTH WILLOWS AREA**

Land Use Category	Acres	Percent
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Residential	264	82.0
School	6	1.8
Church	5	1.6
Commercial	23	7.1
Public	24	7.5
Total	322	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.2-13

**TABLE 4-17
EXISTING LAND USE
COMMUNITY OF WEST ORLAND**

Land Use Category	Acres	Percent
Residential	546	92.7
Commercial	3	.5
Industrial	3	.5
Mobilehome Park	5	.8
RV Park	32	5.4
Total	589	100.0

Source: Glenn County Planning Department; QUAD Consultants, 1991.

4.3 REGIONAL TRANSPORTATION

Road mileages between either Willows or Orland, the two largest cities in Glenn County, and major cities in the region are as follows:

- Orland – Redding 63 miles
- Orland - Red Bluff 30 miles
- Orland – Chico 21 miles
- Orland – Willows 16 miles
- Willows – Oroville 42 miles
- Willows – Williams 25 miles
- Willows – Sacramento 118 miles

Figure 4-15 shows roads of regional significance serving Glenn County and the adjacent region. All of the roads shown are State Highways, although State Route 162 west of Interstate 5 stops 36 miles before the Mendocino County border and becomes County Road 307. The major north-south road is Interstate 5, which provides the major connection between Glenn County and major cities to the north such as Red Bluff and Redding, and to the south to cities such as Sacramento. East of I-5, Routes 32 and 162 are the major east-west roads. Route 32 provides a connection through Orland to Chico, the closest of the major urban areas of California to Glenn County residents. To the south approximately 16 miles, Highway 162 provides a similar connection to Oroville. The next major east-west road to the south is Highway 20 (approximately 23 miles south of Highway 162), which provides a connection to the Yuba City-Marysville area. Highway 45 is the only major north-south road east of I-5. It serves adjoining land uses as well as providing a connection between State Routes 32, 162, and 20.

State Route 162 is the only State Route west of I-5. The Route originally began at Highway 101 in Mendocino County and continued into Glenn County, but a 70 mile break currently exists (34 miles of which is in Mendocino County and 36 miles in Glenn County). The intermediate mileage is a seasonal road owned and maintained by Mendocino and Glenn Counties. This travel corridor, as shown in Figure 4-15, is the only east-west route between I-5 and Highway 101 between State Routes 20 and 36, a distance of approximately 75 miles.

4.3.1 Overall Description of Roads Within Glenn County

The jurisdictions responsible for non-private roads within Glenn County include the County, incorporated cities (Orland, Willows), the State of California, and the U.S. Forest Service. The road system can also be broken down by functional classification and funding category. Table 4-18 shows the breakdown of mileage by these categories. Functional classifications include Principal Arterial, Minor Arterial, Major Collectors, Minor Collectors, and Local Roads. Federal-funding categories are Interstate Highways, Federal-Aid to Primary Roads (FAP), and Federal-Aid to Secondary Roads (FAS). There are no Federal-Aid to Urban roads (FAU) within the county.

A close correspondence exists between the three categories of roads. The State owns and operates all roads that have been classified as arterials. Interstate 5 is the only Major Arterial. All FAP routes, which include the State Routes east of I-5, have been designated Minor Arterials and all FAS routes have been designated Major Collectors. They include one State road section, Highway 162 west of I-5, but otherwise are all County roads. Among the major County roads designated as Major Collectors are the following: nine miles of Road 99, which is located to the east and adjacent to I-5; Road 200, which provides a connection to residential and recreational areas west of Orland, and Road 406-307 (also known as Alder Springs Road), which is a continuation of State Route 162 into the Mendocino National Forest. This latter road section is part of the Forest Highway System and serves as a major route for the transportation of timber.

4.3.2 Traffic Volumes

Table 4-19 presents traffic statistics on State Routes within Glenn County for 1989 as well as a comparison between average annual daily traffic for the years 1986 and 1989. The 1989 traffic volumes are shown graphically in Figures 4-16 through 4-19, and Figure 4-20 shows ten year traffic trends at five selected locations on State Routes. Truck traffic statistics for 1989 are shown in Table 4-20.

For major road sections, the level of service has been calculated based on 1989 peak hour traffic conditions and road characteristics. The results of this analysis are shown in Tables 4-21, 4-22, and 4-23. Table 4-24 presents a description of operating conditions for each level of service for two-lane highways and freeways. Capacity on two-lane roads is a function of shoulder width, the percent of no-passing zones, the percent of heavy vehicles, peak hour percent, directional distribution of traffic, and terrain. The approximate range of traffic for levels of service on two-lane highways is given below for specified assumptions:

Level of Service Thresholds

A	0 - 2,300 daily vehicles
B	2,300 - 4,600 daily vehicles

C	4,600 - 7,500 daily vehicles
D	7,500 - 12,000 daily vehicles
E	12,000 - 19,300 daily vehicles
F	above 19,300 daily vehicles

Assumptions:

- 0 percent of daily traffic peak hour
- 12 percent trucks
- 4-foot shoulder
- level terrain
- 20 percent no passing zones
- 60/40 directional split of traffic

Thresholds for individual sections will vary depending on the actual values for the variables used in calculating the level of service.

Existing conditions are described below for major roads:

Interstate 5

Interstate 5 is a four-lane freeway with a length of approximately 30 miles within Glenn County. It has been designated as a truck route for oversize trucks. Average daily traffic flows range from approximately 16,000 to 21,000, as shown in Table 4-19. The daily traffic for the peak month is approximately 40 percent above the daily annual average as far north as County Road 27, which is indicative of the heavy recreational traffic carried by the road during summer months. As shown in Figure 4-16, the traffic tends to be slightly greater on this road at the north end of the county. On a percentage basis, the largest increase in traffic from 1986-1989 has occurred between Orland (Highway 32) and the Tehama County border.

The route is the major connection between major California cities and the Pacific Northwest and, in addition, is the major farm-to-market route in the Sacramento Valley. As a result, the road experiences large truck volumes. The percentage of trucks is equal to or greater than 30 percent within the county. The highest percentage is 37 percent at the south end of the county, and the highest volume occurs in the road section north of the Highway 162 interchange at Willows. The percentage of large trucks (4 or more axles) is approximately 86 percent, which is evidence of the road's significant economic role. Ongoing maintenance, especially of the outer lane, is required because of the significant volume of large trucks.

The road operates at Level of Service A or B during peak hours of travel, which is acceptable for a major regional route. Considerable additional capacity is available, as the threshold for Level of Service C is approximately 28,000 vehicles per day.

State Route 32

State Route 32 is primarily a two-lane road that extends approximately 11 miles east from Interstate 5 through Orland and Hamilton City to the Butte County border. It continues an

additional 11 miles to Chico and then northeast to Lassen Volcanic National Park. Traffic between I-5 and Chico has experienced a major increase in recent years, which is expected to continue in conjunction with growth of the Chico Urban Area. The 1986-1989 annual growth rate has been approximately six percent in the Hamilton City area between the junction of Route 45 and the county border. Although traffic on the road in the Orland area has experienced minimal growth, it continues to have the highest volume, approximately 12,000 vehicles per day. The relatively low 13 percent difference between the peak month and the daily annual average traffic suggests that a high percentage of the traffic is either local traffic or serves local transportation needs.

Figure 4-17 shows the mix of three major traffic sources -- through traffic between I-5 and Chico, Orland local traffic, and local traffic between Hamilton City and Chico. The range of truck traffic percentages is significantly lower than for I-5, as is the percentage of heavy trucks. The range is 8.5 to 14.2 percent of total traffic, and heavy trucks comprise approximately 60 percent of total truck traffic.

The road operates at Level of Service C or D with "D" conditions occurring in the Orland and Hamilton City areas. Continued growth will eventually require widening of the road and, in the more urban areas, operational improvements.

State Route 45

State Route 45 is a two-lane road located west of the Sacramento River. It is the major east-west connection east of I-5 within the county. The road's proximity to the river has presented design problems. It has a number of right-angle turns and is subject to flooding due to irrigation of adjacent fields and winter rains. Average daily volumes are relatively constant along the road, ranging from 1,800 to 2,600 vehicles per day. The high peak month percentage reflects the road's proximity to the Sacramento River and farmland. The truck percentages are approximately twice those for State Route 32 but still significantly lower than those for I-5.

The level of service for all road sections is "A" or "B" except at isolated locations with right-angle turns where lower levels of service exist. Significant traffic growth on a percentage basis has occurred recently in the road section north of the intersection with Highway 162 westbound, but traffic still remains considerably below the Level of Service C threshold (approximately 4,600 vehicles).

Highway 162

State Route 162 extends approximately 47 miles from a point on Alder Springs Road (County Road 406-307) west of the intersection with Road 306 east to the Butte County border. The route has a break at milepost 76.27 where it intersects with State Route 45 and begins again 4.47 miles to the south.

The route can be divided into two sections for traffic analysis purposes. West of the freeway, the road is classified as a Major Collector; the traffic steadily falls from 2,600 vehicles per day at I-5 to less than 350 vehicles per day west of the intersection with Road 306. The available data suggest that no major monthly fluctuations exist for traffic on this section and that the level of

truck traffic, 20 percent, is similar to the figures for other two-lane State routes within the county.

Traffic volumes east of I-5 are significantly higher than those to the west, especially within the City of Willows, where traffic ranges from 7,900 to 4,300 vehicles per day. From there to the Butte County border, the range is from 1,650 to 2,850 vehicles per day. The highest growth rates within the past three years on the road have occurred within the City of Willows. The percent of truck traffic, 12 percent, is somewhat lower than for State Route 45 and similar to data for State Route 32, the other major east-west road between I-5 and Butte County.

The Level of Service on the road is "A" or "B" except within the City of Willows where it is "C". None of the road sections outside of Willows are approaching the Level of Service "C" threshold, based on 1989 traffic volumes.

County Roads

The County road system, consisting entirely of two-lane roads, serves a variety of purposes. Traffic volumes range from a high of approximately 5,000 vehicles a day to less than 50 vehicles per day. The roads adjacent to Orland and Willows and within Hamilton City, which is unincorporated, serve traffic of an urban nature. Other roads serve rural transportation needs, such as farm-to-market, logging, and recreational trips as well as needs of adjoining residents.

Approximately 860 miles of road are maintained by the County, based on data compiled for the County's Pavement Management System. Of this amount, approximately 15 percent is unpaved, 72 percent has an oil and chip surface, and the remaining 12 percent is asphaltic concrete pavement. A significant percentage of the paved roads have substandard widths. Approximately 88 percent of the paved roads have paved surfaces less than 28 feet wide, and 40 percent have surfaces less than 24 feet wide.

The Pavement Management System, developed for the County by CHEC Engineering Consultants, has demonstrated the need for major capital expenditures to repair the existing road network. A visual survey was made of all paved surfaces. Results of this survey included a list of road segments requiring improvements ranging from maintenance to surface sealing treatments, and finally, reconstruction and an overall rating score for each road segment. Based on the results of the survey, improvement projects were recommended for 89.6 percent of County road mileage. The two major categories of improvements were chip seals (82.9 percent of road mileage) and reconstruction (6.2 percent). If chip seals are not provided in a timely manner, the paved surfaces will further deteriorate and more expensive remedies will be required in the future. These projects are in addition to any projects involving the widening of existing roads and the paving of gravel surfaces.

County roads are named based on their direction and location. Beginning at a location approximately two miles west of I-5 and extending to the east, north-south roads are assigned a letter, and east-west roads are assigned a number between 1 and 100. Numbers increase to the south and letters increase to the east. The exception to this numbering system is Road 99, a north-south road that was originally part of State Highway 99. Roads to the west of the area covered by this system are numbered between 200 and 500.

All County Roads are classified as either Major Collectors, Minor Collectors, or Local Roads. The Major Collectors include the 166 miles of Federal-Aid Secondary roads, which do not carry inter-regional traffic but serve major trip generators, such as airports and schools, or are significant for economic development. They include the following road sections: Road 406-307 (36.03 miles), County Road 200 (7.00 miles), Road 306 (18.00 miles), Road 68 (3.01 miles), Road 60 (9.37 miles), Road 99W (7.91 miles), Road P (10.96 miles), Road Z (5.56 miles), Road 206 (17.64 miles), Road D (6.96 miles), Road 33 (7.75 miles), Road 39 (11.33 miles), Road S (12.47 miles), Road 32 (0.80 miles), and Road 24 (11.64 miles).

Roads with traffic in excess of 3,000 vehicles per day are located adjacent to either Willows or Orland. Road 200 serves urban development near Orland west of I-5 and has the highest volume on any County road, 5,125 vehicles per day. It is followed closely by a section of Road 99 (4,975 vehicles per day) also adjacent to Orland. These two sections are the only County road sections where Level of Service C exists at the present time. This level of service is acceptable because they are located within the sphere of influence of incorporated cities. Other road sections with large traffic volumes include Road 16 (3,000 vehicles per day) adjacent to Orland and Road 99 adjacent to Willows (4,475 vehicles per day).

Roads outside urban areas with traffic volumes from approximately 800 to 3,000 vehicles for their entire length per day also serve as major collectors. These volumes are similar to those found on State Routes 45 and 162 away from major cities. Roads included in this category are Road 99, which even outside urban areas has traffic volumes of at least 1,750 vehicles per day. Road 39, also known as Bayliss Blue Gum Road, is a major east-west collector with volumes ranging from 900 to 1,500 vehicles per day from Road 99 east to State Route 45.

Minor collectors are roads that carry approximately 300 to 800 vehicles per day for their entire length. Among the roads in this category are Road P from Road 39 to State Route 32 (400 to 975 vehicles) and Road 24 (275 to 500 vehicles) from I-5 to State Route 45.

Several roads in the western portion of the county have somewhat lower volumes but are considered major collectors because of their length and the sparse road network. The 36-mile extension of State Route 162 west to the Mendocino County border is a County road and also designated Forest Highway 7, which makes it eligible for Forest Highway funding. The first 12.6 miles, designated as Road 406, has been paved; the remaining mileage is a gravel surface. The paved section was designed and constructed with Forest Highway funds by the Federal Highway Administration and then turned over to the County. The County has had to expend significant resources to stabilize the subsurface materials. It is seeking Forest Highway funds to improve and pave the entire roadway so that a route to the coast comparable to State Routes 20 and 36 can eventually be provided.

Forest Service Roads

Currently, the U.S. Forest Service has approximately 387 miles of active logging roads. These roads have been constructed by the U.S. Forest Service and are designed for the harvesting of timber and its transportation to public roads. They are generally built to lower standards than roads designed for use of the general public. Over time, as their use becomes more oriented

towards recreational activities than timber harvesting, they can be upgraded and, in some cases, turned over to the State or the County for on-going maintenance.

4.3.3 Air Facilities and Services

The County operates two general aviation airports, and numerous private landing strips, located on farms and ranches in the region. Orland Haigh Field Airport is located in the Orland area south of County Road 20 and west of County Road P. Willows Glenn County Airport is located west of I-5 and south of State Highway 162 near Willows. The Glenn County Airport Advisory Committee (eight members) assists the Glenn County Public Works Department with the administration of the airports.

The Glenn County Airport Land Use Commission (seven members) is established according to State Law to adopt comprehensive airport land use plans (CLUP). The Comprehensive Airport Land Use Plan for the Willows Glenn County Airport was adopted in May 1990. The Comprehensive Airport Land Use Plan for the Orland Haigh Field Airport was adopted in February 1991.

The Orland Haigh Field Airport has a single runway, and the Willows Glenn County Airport has two runways arranged in a "V" configuration. Operations at the two County airports are primarily by single-engine aircraft engaged in recreational or agricultural use. Approximately 105 aircraft are based at both airports, based on a 1988 figure of 55 aircraft for Orland Haigh Field and 49 aircraft for Willows Glenn County Airport. This figure is a 21 percent reduction from the 1985 figure of 133 aircraft. The decrease occurred primarily at the Willows Glenn County Airport where the U.S. Forest Service reduced its operations. In the long term, it is expected that the number of aircraft based there will return to the previous level.

Neither airport is served by scheduled air carriers but charter service is available. Carriers serving Chico offer limited intrastate scheduled service, and for interstate flights residents must travel to either Sacramento or the major San Francisco Bay area airports (San Jose, Oakland, and San Francisco).

4.3.4 Bicycle and Pedestrian Trails

No specific bicycle facilities exist within the county at the present time. Bicyclists currently must ride in travel lanes on County roads, as the paved shoulders are not wide enough to accommodate bicycles. The area has long-term potential for extensive use of bicycles because of its flat terrain and promising corridors for the development of bicycle facilities.

Two major bicycle routes have been proposed as part of regional bicycle routes. A path on the east side of I-5 would be part of a route that eventually would extend along the I-5 corridor from the Oregon boundary to Bakersfield. A second path on Bayliss-Blue Gum Road would provide a connection between this route and a Butte County system at Ord Bend.

The U.S. Forest Service has many primitive and maintained trails interlacing the western section of the county. These trails serve local recreational purposes and are not oriented for extended hiking use.

4.3.5 Rail Services

The county is traversed by the Southern Pacific Transportation Company's (SPTCo) West Sacramento Valley railroad track which extends north from Davis in Yolo County to Tehama in Tehama County, where it joins the more heavily used mainline track from Sacramento that passes through Marysville and Chico. The track is located on the east side of the Old Highway 99W right-of-way and runs through the center of both Orland and Willows. A branch line runs to the Holly Sugar factory in Hamilton City and a spur serves the Johns Manville facility west of Willows. Carload freight service is provided on several sidings, but no depots for general freight exist in the county. Freight service to and from the county is generally limited to large shipments that are being moved over long distances, where time is not a factor.

AMTRAK train service is available in Chico, with two trips northbound and southbound each day. The southbound departure times, as of July, 1991, were 3:54 a.m. and 9:10 a.m. and the northbound departure times 11:18 a.m. and 7:25 p.m. The one-way fare between Sacramento and Chico is \$22.00.

4.3.6 Public Transit Services

Public transit includes surface transportation services available for the movement of persons from one place to another operated by both private and public operators. Included are specialized services that provide transportation for specific groups, such as the elderly, handicapped, and economically disadvantaged.

Commercial Public Transit for the General Public

The availability of commercial public transit services for the general public is limited at this time. For local trips, Jimmie's Cab operates service in both Willows and Orland. The availability of intercity services has become more limited in recent years. Greyhound provided five trips northbound and southbound per day to Willows and Orland along the I-5 Corridor in 1986 but in July, 1991 provided only three in each direction, as shown in Table 4-25.

Intercity bus services generally are unable to meet local transportation needs. At certain times, a large number of long-distance travelers can limit the number of seats available for short trips. Also, the services, by their nature, cannot provide convenient schedules and routing for riders at all locations on their routes. Of the six daily buses serving Orland, two leave in the early morning (before 6:30 a.m.) and two leave in the evening (7:25 and 9:50 p.m.). Greyhound can provide service from Orland to Chico in the early morning but no service is available in the return direction. All of the northbound trips from Willows and Orland leave in the late afternoon and evening, and all of the southbound trips are in the morning. This schedule would allow a person to travel from Orland to Willows or Sacramento and return the same day, but travel from Willows to Orland would require an overnight stay. The cost of a one-way fare between Orland and Willows is \$3.00.

Table 4.3-1

**TABLE 4-25
GREYHOUND TIMETABLE FOR GLENN COUNTY, 1991**

STOPS IN:		
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Route Northbound	Chico	Sacramento	Leave Willows	Leave Orland
San Francisco-Seattle	No	No	5:10 PM	5:25 PM
Sacramento -Seattle	No	Yes	7:00 PM	7:25 PM
Sacramento - Seattle	No	Yes	9:25 PM	9:50 PM
STOPS IN:				
Route Southbound	Chico	Sacramento	Leave Orland	Leave Willows
Seattle-Sacramento	No	Yes	4:00 AM	4:25 AM
Redding-San Diego	Yes	Yes	6:20 AM	--
Seattle-Sacramento	No	Yes	--	5:50 AM
Redding-San Francisco	No	No	11:00 AM	11:25 AM

Source: July, 1991 Greyhound Service Schedule (Table 600).

The carrier providing van service to Sacramento Metro Airport and AMTRAK service in Chico from Glenn County ceased operations in 1989, and no substitute exists at this time. Airport Transportation Services in Chico provides van service to Sacramento Metro Airport with five round-trips six days a week and three round-trips on Saturday, but Glenn County residents would have to provide their own transportation to Chico.

Merit Medi-Trans, based in Chico, is a private company providing wheelchair accessible vans by arrangement. The high cost of this service precludes its use on a frequent basis by persons that must be transported in a wheelchair. Mount Lassen Motor Transit, with offices in Red Bluff and Redding, offers charter and tour bus services in the region. It offers tours between Redding and Reno that stop in Orland to pick up and drop off passengers. The company also provides frequent tours to the San Francisco area and Mount Lassen Volcanic Park.

Supplementary Public Transit Services

The discussion of supplementary services is based in large part on material in the May, 1991 report entitled Glenn County Transit Feasibility Study, prepared by Nelson/Nygaard for the Glenn County Transportation Commission.

Tables 4-26 and 4-27 summarize the operations of the ten major supplementary public transit services that serve Glenn County residents. They serve one or more disabled groups, including elderly, handicapped, developmentally disadvantaged, and economically disadvantaged. Overall, these services reach a significant percentage of disadvantaged persons who do not have other feasible mobility options, but in many cases they only meet some of their needs.

The services together have a total of nineteen vehicles, only four of which are equipped with wheelchair lifts. Despite this sizable number, no service operates more than two vehicles at a time except the transportation service operated by the County Office of Education to and from special education classes, which has eight vehicles. The subsidized taxi program has three vehicles, but one is a back-up vehicle and only one vehicle each is located in Willows and Orland.

Three of the programs do not have any vehicles but reimburse riders for their expenses. Reimbursement is generally limited to costs of operating a personal motor vehicle, e.g. \$.35 per mile for the MediTrans volunteer program. The County Health Department has indicated that its funds for reimbursement fall short of the demand.

The supplementary programs are primarily oriented towards single trip purposes. For five of the services, all of the trips involved are for a single trip purpose, medical trips for three services and education/training for the two others. Three additional services provide between 75 and 95 percent of trips for a single purpose. The subsidized taxi programs in Willows and Orland are the only services that offer trips for a wide range of purposes. Over 60 percent of its trips fall into a broad category that includes shopping, personal business, social, and recreational trips. The service is available to all of the major disadvantaged groups, but its service area is limited to eligible residents within 1-1/2 miles of the City Halls of Willows and Orland.

Although many of the services technically provide county-wide and intercounty services, their limited resources and eligibility requirements make it difficult to meet all mobility needs. For example, the county-wide transportation services provided by the County Department of Social Services and the County Health Department are only for economically disadvantaged residents.

Unmet public transit needs, based on interviews with staff of existing providers and users, include the availability of intercity service between Orland and Willows, service between Orland and Chico, and expansion of the hours of service to early morning and evening hours. The 1991 Glenn County Transit Feasibility Study made two short-term recommendations to improve public transit service. First, the County should cooperate with Butte County in a joint intercounty study to identify the most feasible operating strategies. Second, the existing providers should improve coordination to increase the productivity of existing resources. Such coordination could include the joint scheduling of trips and sharing of vehicles that are in use for only part of the day.

4.4 HOUSING

Housing information presented in this Section, unless stated otherwise, refers to the unincorporated area of Glenn County. As described in Section 4.1 above, the population of Glenn County has grown moderately since 1980, at an average annual rate of 1.57 percent. A review of U.S. Census data and Department of Finance (DOF) estimates indicates that the housing stock in the unincorporated area of the county expanded by 491 units during the period 1980-1990, an average annual increase of approximately 50 units (see Table 4-28).

Table 4.4-1

**TABLE 4-28
TOTAL HOUSING STOCK 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	NUMBER OF UNITS	% INCREASE
1980	4,590	
1990	5,081	+10.7%

Source: U.S. Census Bureau, 1980, 1990.

An examination of census data provides insight into the demand for different types of dwelling units within the unincorporated area. The three basic types of housing units for which data are presented include single family units, multiple family units (which range in size from duplexes to larger apartment complexes containing several units), and mobile homes located in mobile home parks and on individual lots.

The predominant type of dwelling unit in Glenn County continues to be the conventional single family residence, followed by mobile homes. Although the percentage of single family dwellings declined slightly from 1980 to 1990 (from 72.4 percent to 70.3 percent of the total housing stock), the percentage is still high in comparison to statewide figures. Statewide trends indicate a decline in the percentage of single family dwellings, due primarily to an increased market share of lower-priced mobile homes and rental apartment units (See Table 4-29).

Comparison of the growth rates of the three dwelling types in Glenn County illustrates the change in distribution of dwelling type. From 1980 to 1990, single family dwellings increased by only 7.4 percent, while multiple family units declined by 58.9 percent and the number of mobile homes increased by 63.5 percent. The proportion of the housing stock in the unincorporated area comprised of multiple-family units declined from 9.9 percent of the total supply in 1980 to 3.7 percent in 1990. This seemingly unusual decrease (in total numbers as well as percentage of the housing stock) can be explained by annexation of land with multiple-family structures to the cities of Willows and Orland.

The percentage of the local housing stock comprised of mobile homes, both in parks and on individual lots, has historically been higher than average in Glenn County, due to its rural and agricultural nature. The percentage of mobile homes increased from 17.6 percent of the housing stock in 1980 to 26.1 percent in 1990. Mobile homes are being located in the unincorporated communities of Glenn County as well as in agricultural areas.

Before current housing needs can be understood and future needs anticipated, housing occupancy characteristics must be identified. An analysis of household size, household growth, tenure and vacancy trends complements the previous analysis of population and housing characteristics during the same period.

A review of available data shown in Table 4-30 indicates that the number of households in Glenn County increased by 469 during the period 1980-1990, a 10.9 percent increase. The small decrease in the average household size in Glenn County during the 1980s follows a statewide trend toward smaller households (see Table 4-31), although it is still high in comparison to statewide averages. U.S. Census data for 1990 indicate that the average household size decreased to 2.8 persons per household in 1990.

The rate of home ownership within the Glenn County unincorporated area decreased slightly during this decade from 71.6 percent to 67.1 percent, as shown in Table 4-32. The statewide trend is toward a decreased rate of home ownership, due to the increased cost of housing.

The vacancy rate is a measure of the general availability of housing. It also indicates how well the type of units available meet the current housing market demand. A low vacancy rate suggest that families may have difficulty finding housing within their price range; a high vacancy rate

may indicate either the existence of deficient units undesirable for occupancy, or an oversupply of housing units. The overall 1980 vacancy rate for Glenn County was 7.6 percent and the 1990 vacancy rate was 0.9 percent for owner-occupied units and 3.2 percent for renter-occupied units, showing a clear decline in the countywide vacancy rate.

Table 4.4-2

**TABLE 4-29
TOTAL DWELLING UNITS BY TYPE OF STRUCTURE
GLENN COUNTY UNINCORPORATED AREA
1980-1990**

DWELLING TYPE	1980		1990		1980-1990
	Units	% of Total ¹	Units	% of Total	% Change
Single Family	3,324	72.4	3,570	70.3	+7.4
Multi-Family	456	9.9	187	3.7	-58.9
Mobile Homes	810	17.6	1,324	26.1	+63.5
Total Year-Round Dwelling Units	4,590	100.0%	5,081	100.0%	+10.7

¹Percentages may not total 100.0% due to rounding.
Source: U.S. Census Bureau, 1980, 1990.

Table 4.4-3

**TABLE 4-30
TOTAL HOUSEHOLDS 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	NUMBER OF HOUSEHOLDS	% INCREASE 1980-1990
1980	4,301	
1990	4,770	+10.9%

Source: U.S. Census Bureau, 1980, 1990.

Table 4.4-4

**TABLE 4-31
AVERAGE NUMBER OF PERSONS PER OCCUPIED
DWELLING UNIT 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	AVERAGE HOUSEHOLD SIZE	% CHANGE 1980-1990
1980	2.9	
1990	2.8	-3.4

Source: U.S. Census Bureau, 1980; DOF Estimates, 1990.

Table 4.4-5

**TABLE 4-32
HOUSING TENURE 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	OWNER OCCUPIED	%	RENTER OCCUPIED	%
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1980	3,079	71.6	1,222	28.4
1990	3,199	67.1	1,571	32.9

Source: U.S. Census Bureau, 1980, 1990.

A windshield housing condition survey was completed in the unincorporated communities of Artois, Bayliss, Blue Gum Area, Butte City, Capay Area, Codora Four Corners, Glenn, and Ord Bend in June 1991, and surveys of the communities of Elk Creek, Hamilton City, North Willows, North East Willows and West Orland completed in 1987 by the Colusa-Glenn-Trinity Community Action Agency were updated. The results of the survey are presented in Table 4-33. It should be noted that the boundaries used in the earlier Community Action Agency Survey do not correspond to the boundaries used in the land use data reported in Section 4.2.

The rating system used in the 1991 survey was based on the format prescribed by the California Department of Housing and Community Development. The rating system evaluates residences based on the exterior condition of five components: roof, foundation, siding, windows, and doors.

Residences were rated as one of five possible condition categories: sound, minor, moderate, substantial, and dilapidated. These terms are defined as follows:

- Dwelling units rated as "*sound*" had no visible repair needs or needed one or two deferred maintenance repairs, such as painting, patching, or window repair.
- Dwelling units rated in need of "*minor*" rehabilitation required several deferred maintenance repairs and/or had one replacement repair need (such as the re-sheathing of the roof, replacement of siding, replacement of doors or windows, or partial foundation work).
- The "*moderate*" rehabilitation category was assigned to dwelling units that required two replacement repairs plus deferred maintenance. Complete replacement or installation of a foundation system and structural roof repair or replacement also typify "*moderate*" rehabilitation.
- A dwelling unit in need of "*substantial*" rehabilitation requires the replacement of three or more components.
- "*Dilapidated*" dwelling units are those which require the replacement of virtually all components and which are not financially feasible to repair.

Table 4-34 shows that 10.7 percent of the total housing units within the Glenn County unincorporated area were overcrowded in 1990 compared to 8.1 percent in 1980. The U.S. Census Bureau defines overcrowded housing units as those with in excess of 1.00 person per room average. The extent of the overcrowding problem in Glenn County is shown in the above-referenced table. However, the actual causes cannot be determined without conducting special studies.

Table 4.4-6

TABLE 4-33

**1991 HOUSING CONDITION SURVEY RESULTS
GLENN COUNTY UNINCORPORATED COMMUNITIES**

Community	Condition	Number	Percent
Artois*	Sound	16	32.0
	Minor	8	16.0
	Moderate	11	20.8
	Substantial	10	20.8
	Dilapidated	5	10.4
Bayliss	Sound	14	73.7
	Minor	4	21.1
	Moderate	1	5.3
	Substantial	0	0
	Dilapidated	0	0
Blue Gum Area	Sound	5	71.4
	Minor	2	28.6
	Moderate	0	0
	Substantial	0	0
	Dilapidated	0	0
Butte City*	Sound	13	35.3
	Minor	6	17.7
	Moderate	7	18.8
	Substantial	7	18.8
	Dilapidated	3	9.4
Capay Area	Sound	121	87.7
	Minor	7	5.1
	Moderate	8	5.8
	Substantial	2	1.4
	Dilapidated	0	0
Codora Four Corners	Sound	12	100.0
	Minor	0	0
	Moderate	0	0
	Substantial	0	0
	Dilapidated	0	0
Elk Creek*	Sound	30	42.7
	Minor	15	21.3
	Moderate	10	14.4
	Substantial	10	14.4
	Dilapidated	5	7.2
Glenn	Sound	7	53.8
	Minor	4	30.8
	Moderate	1	7.7
	Substantial	1	7.7
	Dilapidated	0	0
Hamilton City*	Sound	321	55.3
	Minor	161	27.7

	Moderate	40	6.8
	Substantial	39	6.8
	Dilapidated	20	3.4
North East Willows*	Sound	49	23.3
	Minor	25	11.7
	Moderate	55	26.0
	Substantial	55	26.0
	Dilapidated	27	13.0
North Willows	Sound	200	85.1
	Minor	22	9.4
	Moderate	11	4.7
	Substantial	0	0
	Dilapidated	2	0.9
Ord Bend	Sound	8	61.5
	Minor	4	30.8
	Moderate	0	0
	Substantial	1	7.7
	Dilapidated	0	0
West Orland	Sound	212	88.3
	Minor	18	7.5
	Moderate	6	2.5
	Substantial	1	.4
	Dilapidated	3	1.3

* Note:Information updated from 1987 survey completed by Colusa-Glenn-Trinity Community Action Agency by QUAD Consultants; percentages represent estimates due to different methodology employed by that survey. Housing Conditions Survey boundaries do not correspond to Land Use Survey boundaries, thus totals are not necessarily equivalent.

Source:Colusa-Glenn-Trinity Community Action Agency, 1987; Glenn County Planning Department; QUAD Consultants, 1991.

Table 4.4-7

**TABLE 4-34
OVERCROWDING, 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

	1980 Housing Units			1990 Housing Units		
	Owner	Renter	Total	Owner	Renter	Total
Total Housing Units	3,079	1,222	4,301	3,199	1,571	4,770
Overcrowded (1.01+ persons per room)	184	163	347	271	241	512
Incidence of Overcrowding (%)	6.0	13.3	8.1	8.5	15.3	10.7

Source:U.S. Census Bureau, 1980; 1990 owner and renter estimates and calculations, QUAD Consultants.

State Housing Law requires that the special needs of certain disadvantaged groups be addressed. The needs of the elderly, disabled, large families, female heads of household and farm workers are described below. Table 4-35 indicates that 1849 residents of the unincorporated area, or 13.4

percent of the total population, were 65 years of age or older in 1990, compared to 1583 persons in 1980.

Table 4-36 indicates the number of persons in 1980 who had disabilities that either restricted working or restricted them from using public transportation. It should be noted that the listing of those persons with transportation disabilities also includes a large number of persons 65 years or older. As indicated 5.1 percent of Glenn County households contained members who have work limitations because of a disability and 2.5 percent experienced transportation disabilities. Estimates for 1990 are also included in this table; 1990 Census data is not yet available.

Large families are indicative not only of those households that require larger dwellings to meet their housing needs, but also are reflective of a large number that live below the poverty level. Table 4-37 indicates the numbers and percentages of those households that had five or more members in 1980 and 1990.

Families with female heads of household experience a higher than average incidence of poverty as well. Table 4-38 lists the numbers and percentages of female-headed households for 1980 and 1990 (U.S. Census, 1990).

Table 4.4-8

**TABLE 4-35
ELDERLY POPULATION 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	NUMBER AGE 65+	PERCENT OF TOTAL
1980	1,583	12.6
1990	1,849	13.4

Source:U.S. Census Bureau 1980, 1990.

Table 4.4-9

**TABLE 4-36
DISABLED POPULATION 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

YEAR	WORKER DISABILITY	% OF POPULATION	TRANSPORTATION DISABILITY	% OF POPULATION
1980	638	5.1	317	2.5
1990	702	5.1	344	2.5

Source:U.S. Census Bureau, 1980; 1990 estimates and calculations, QUAD Consultants.

Table 4.4-10

**TABLE 4-37
LARGE FAMILIES 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

Household Type	1980 Housing Units			1990 Housing Units		
	Owner	Renter	Total	Owner	Renter	Total
Total Housing Units	3,079	1,222	4,590	3,199	1,571	5,081
Large Families (5+ persons)	492	218	710	512	280	788

Rate of Large Families (%)	16.0	17.8	15.5	16.0	17.8	15.5
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Source:U.S. Census Bureau, 1980; 1990 estimates and calculations, QUAD Consultants.

Table 4.4-11

**TABLE 4-38
FEMALE HEADS OF HOUSEHOLD 1980-1990
GLENN COUNTY UNINCORPORATED AREA**

	1980	1990
Female-headed Families (2+ persons per household)	241	267
Total Households	4,301	4,770
% of Total Households	5.6	5.6

Source:U.S. Census Bureau, 1980; 1990 estimates and calculations, QUAD Consultants.

4.5 PUBLIC SERVICES

4.5.1 Water

Domestic water is provided in the City of Willows and Hamilton City by California Water Service Company (CWSC). CWSC maintains approximately 2,300 accounts in Willows and 440 accounts in Hamilton City. The two communities are supplied with groundwater by ten wells; eight serving Willows and two serving Hamilton City. The depth of the wells is estimated to range from 600 to 900 feet. The average winter demand amounts to one million gallons per day (MGD) and 2.5 MGD in summer. Weekly bacteriological samples are taken by CWSC throughout their service area to determine if bacteria exists in the water supply. The CWSC also tests annually for traces of organic and inorganic chemicals. There is an adequate supply of available ground water to meet the needs of future growth, according to CWSC. (Pers. comm., Bob Thompson, California Water Service Company, July 1991.)

The City of Orland provides domestic water to 1,877 residential customers and 338 commercial customers. The City currently operates eight wells to serve its customers. The Black Butte Water Company supplies domestic water to seventy-eight homes located in the Black Butte subdivisions in West Orland. (City of Orland, Orland Area General Plan April, 1991.)

There are three Community Services Districts which supply domestic water in Glenn County:

- Elk Creek Community Services District, which serves 130 customers with water from Stony Gorge Reservoir.
- Butte City Community Services District which serves 39 customers.
- Artois Community Services District, which serves 52 customers.

Other domestic water is typically obtained by individual wells. Wells can be drilled successfully and are numerous in the Valley region, but are less numerous in the foothill region because of the additional cost and difficulty of locating potable water.

Irrigation water is supplied by ten water or irrigation districts or private wells. The Capay Rancho Water District and Chrome Water District are currently inactive. A complete list of the active water and irrigation districts is as follows:

- Stony Creek Water District
- 4-E Water District
- Provident Irrigation District
- Princeton-Codora-Glenn Irrigation District
- Orland Unit Water Users Association
- Orland-Artois Water District
- Kanawha Water District
- Glide Water District
- Glenn-Colusa Irrigation District
- Hunter Creek Water District

(Pers. comm., Christy Leighton, Glenn County Planning Department, July 1991.)

4.5.2 Wastewater

There are three wastewater treatment facilities serving most of the urbanized portion of Glenn County: Willows, Orland, and Hamilton City.

The Hamilton City Community Services District manages the community's wastewater treatment facility, which serves a population of 2,500. The facility treats an average daily flow of approximately 0.25 million gallons per day (MGD), about half of the 0.5 MGD design capacity. The plant has seven oxidation ponds, only three of which are currently in use. Since the facility was not designed to receive storm drainage, wet weather does not affect the flow. The facility can serve an additional 2,500 residences before expansion is necessary, according to District management. (Pers. comm., Ralph Vidauri, Hamilton Community Services District Wastewater Treatment Facility, July 1991; Don Holm, Glenn County Health Department, September 1991).

The City of Orland wastewater treatment plant serves approximately 2,000 residences as well as commercial and industrial uses. The plant has been treating 0.6 MGD of wastewater, and has a design capacity of 2.1 MGD. The City of Orland is anticipating a 110-acre expansion of its sewer treatment ponds near the Orland airport to accommodate expected future growth. (City of Orland, Orland Area General Plan, April 1991; Don Holm, September 1991).

The City of Willows wastewater treatment facility provides service to both the City of Willows and North East Willows, under contract to the Northeast Willows Community Services District. A population of approximately 6,000 is served by the facility. The 1990 average daily flow is estimated at 0.75 MGD, a little over half the 1.12 MGD design capacity. The facility is capable of handling the area's current yearly growth rate, assuming the rate remains constant, in the years to come. There are no future expansion plans. (Pers. comm., Thomas Landon, Landon Engineering and Surveying, July 1991; Don Holm, September 1991).

Other wastewater treatment facilities in the Glenn County area include a system operated by CALTRANS at the I-5 rest stop, industrial wastewater treatment ponds operated by Holly Sugar in Hamilton City and those operated by Glenn Milk Producers Association on County Road 39. Wastewater treatment in areas not served by any of the wastewater treatment facilities is provided by individual septic tank and leachline systems. Septic tanks operate well in parts of Glenn County and City of Orland, typically where the soil drains well and is considered gravelly. However, the very rapidly percolating soils (<5 minutes/inch), such as the Cortina series, known to exist in the Orland area, provide inadequate treatment for the sewage before it reaches the groundwater. The southern part of the county is dominated by heavy clay soils with a slow percolation rate (>60 minutes/inch) and a high ground water table (less than 3 feet below the surface in some areas).

In the North Willows area the soils are deep, well-drained and slowly permeable resulting in the need for large leach fields to adequately treat the sewage. Septic tanks in the foothill region are difficult to install primarily due to the limited amount of soil covering rock.

In May, 1990, Glenn County adopted new sewage disposal regulations for on-site wastewater disposal systems. The Glenn County Health Department is in the process of initiating a study to further evaluate these regulations with regard to adequate filtration, the design of alternative systems for use in some of the extreme soil conditions that exist in the county, and the development of construction standards for the installation of shallow trench and lined trench leach line systems. (Pers. comm., Don Holm, Glenn County Health Department, July 1991.)

4.5.3 Utilities

Natural gas and electrical service in the county are provided by Pacific Gas and Electric Company (PG&E). PG&E owns, operates and maintains electric service in the Glenn County region. There are currently 129 miles of 230,000 volt (230 kV) transmission lines, and 112 miles of 115,000 volt (115 KV) transmission lines in the county. The 115 KV lines are currently operated at only 60 kV because of relatively low demand.

The Pacific Northwest-Pacific Southwest Intertie transmission line runs in a north-south direction through Glenn County approximately four miles west of Interstate 5. The intertie consists of two alternating current (AC) lines and one direct current (DC) line capable of transmitting 5,200 megawatts (MW) of power between the regions. The California-Oregon Transmission Project, currently under construction, will add approximately 1,600 MW of additional transfer capability within the existing transmission corridor.

Voltage losses can occur over long distribution lines. Additional transmission facilities would be sited in areas designated for or experiencing development to minimize any potential voltage losses.

There are currently four primary natural gas transmission pipelines serving Glenn County, including a thirty-six inch diameter pipeline that spans the county from north to south along I-5. Smaller gas pipelines transport natural gas from gas field sites within the County to PG&E's main gas pipeline system (Fugro-McClelland (West) Inc., 1991).

Pacific Telephone Company provides telephone service to the Glenn County region.

4.5.4 Schools

There are ten public school districts in Glenn County, each with its own Board of Trustees. Table 4-39 provides a listing of the school districts, current and projected enrollment and facility capacity. There are ten elementary schools, two intermediate schools, five high schools, and three continuation schools in the county. Elk Creek Alternative School provides educational opportunities to adults and returning students.

All of the school districts anticipate the 1991-1992 enrollment to be approximately the same or slightly higher than the 1990-1991 enrollment with the exception of two school districts. Hamilton Union Elementary District projects an enrollment increase of twenty students and Willows Unified School District projects seventy-five. Willows Unified is currently the only school district in Glenn County at maximum facility capacity. Two new portables were recently added and the District is considering placing a bond issue on the local ballot to assist in financing needed additional facilities.

Table 4.5-1

**TABLE 4-39
GLENN COUNTY SCHOOL DISTRICTS
ENROLLMENT AND OPTIMUM CAPACITY**

SCHOOL DISTRICT	JUNE 1991 ENROLLMENT	FALL 1991 PROJECTED ENROLLMENT	OPTIMUM FACILITY CAPACITY	PORTABLES NEEDED
Capay Joint Union	152	152	210	0
Lake School	130	130	150	0
Plaza School	131	131	N/A	N/A
Hamilton Union Elementary	470	490	550	0
Orland Joint Union	1,572	1,565	1,654	0
Hamilton Union High	220	220	300	0
Willows Unified	1,950	2,025	2,025	2
Princeton Joint Unified	230	230	N/A	0
Stony Creek Joint Unified	188	178	420	0
Orland Joint Union High	579	565	752	0

Source: QUAD Consultants, 1991.

4.5.5 Parks and Recreation

The Glenn County Building and Grounds Department operates nine parks encompassing approximately 100 acres. The Cities of Orland and Willows each maintain four parks totaling forty-two acres of parkland in Orland and thirty-two acres of parkland in Willows. Both cities offer their residents recreational programs for all age groups. Table 4-40 lists federal, county, and city parks located in Glenn County.

There are currently four federal park facilities, including Mendocino National Forest and the Sacramento National Wildlife Refuge. The Forest offers a variety of recreational opportunities both in Glenn County and in adjacent counties, including camping, backpacking, boating, fishing, hunting, and off-highway vehicle use. There are two designated wildernesses: the 100,600 acre Yolla Bolly Middle Eel Wilderness, and the Snow Mountain Wilderness with approximately 37,200 acres (Pers. comm., English).

The Sacramento National Wildlife Refuge is located in the southeastern portion of the county adjacent to Interstate 5, of which approximately 8,555 acres are located in Glenn County. The facility provides a wintering area for migratory waterfowl.

Table 4.5-2

**TABLE 4-40
PARK AND RECREATION FACILITIES IN GLENN COUNTY**

FACILITIES	ACRES
Federal Facilities	
Mendocino National Forest	
The Sacramento National Wildlife Refuge	
Black Butte Lake	
Stony Gorge Reservoir	
County Facilities	
Orland Memorial Hall	.75
Hamilton City Park	1
Walker Creek Park	7
Willows Memorial Hall	.75
Ord Bend Park	12
Site 21	47
Site 48	28
Butte City Boat Ramp	2
Monroeville Cemetery Historical Site	1
City Facilities	
Orland	
Vinsonhalen Park	17
Tely Aquatic Park	21
Library Park	2.5
Spence Park	2.5
Willows	

Jensen Park	14
Sycamore Park	11
20-30 Park	2.5
SP Park	.25

Source: Glenn County Land Use Element.

4.5.6 Health Services

The United States Army Corps of Engineers provides camping facilities at Black Butte Lake. The two larger campsites, Orland Buttes and Grizzly Flat, receive approximately 72,000 visitors annually. The United States Bureau of Reclamation provides three camping areas, three picnic areas, one boat ramp and one common area for groups at Stony Gorge Reservoir.

Health care facilities within Glenn County encompass Glenn General Hospital located in the City of Willows, Willow View Convalescent Center, residential care facilities, and a senior citizen housing complex as well as private physicians and other medical practitioners.

Glenn General Hospital, a County operated hospital, provides acute care service and is licensed for 80 beds. However, only thirty-two beds are currently available for use. There are currently eighty-two hospital personnel, forty per diem personnel and sixteen private doctors on the active staff. The hospital is located at 1133 West Sycamore in the City of Willows. Glenn General Hospital offers 24-hour emergency care, outpatient care, general surgical care, outpatient surgical care, and minor heart surgery. The hospital sponsors an orthopedic clinic, a urology clinic, a cardiology clinic, podiatry clinic, gastroenterology clinic, neurology clinic, and obstetric-gynecology clinic. Future hospital plans include reopening the pulmonary clinic.

Residents typically travel to other facilities, such as Enloe Hospital in Chico, for certain specialized services including burns, major heart surgery, and severe trauma and psychiatric care. (Pers. comm., Kathleen Wells, Glenn General Hospital, July 1991.)

The Glenn County Public Health Department is organized under the Glenn County Health Services Agency and provides maternal and child health care programming, California Children's Services, child health and disability programs, vaccinations and general public health nursing to the community. In addition, the Public Health Department also provides Environmental Health services to Glenn County citizens comprised of water system reviews, vector control, restaurant checks and consultation.

Alcohol & drug programs are also organized under the County Health Service Agency and provide residential treatment, out-patient counseling, perinatal programs and community education and information. Mental Health programs offered by the same agency provide services to citizens of all ages who have a demonstrated mental disorder or affective disorder. Services include but are not limited to in-patient services, residential services, out-patient counseling, medication monitoring and community education and referral (Pers. comm., Mike Cassetta, Glenn County Public Health Department, September 1991).

4.6 ECONOMIC PROFILE

The following section describes the current Glenn County economy. The subsections presented below focus on five distinct components of local economic activity: agriculture, forestry, tourism, retail, and industrial activity. Also discussed are several miscellaneous aspects of local and regional economic development and evident trends in the economic outlook for the county. A substantial amount of the data cited in this discussion is derived from existing sources of record (see References). Inferences drawn from this data, however, are largely those of QUAD Consultants, unless otherwise noted in the text.

A general characterization of the economy of Glenn County would be that it is comparatively dependent upon a narrow range of activities, is heavily dependent upon public sector (government) employment, generates employment and income at rates below the average for the State of California and the United States, and is somewhat static (that is, relatively little change occurs in the distribution of economic activity among the various segments of the economy from year to year). It may also be fair to characterize the local economy as fairly vulnerable to deterioration, however. At a time when agriculture is increasingly constrained by the combined effects of drought, intensified regulation, and declining markets (e.g. beef consumption), and when government spending is subject to greater scrutiny and reduced resources, the predominance of agriculture and government employment in the county's economic profile suggests that the absence of diversity in the local economy forebodes poorly for the county's long-term future.

Based upon data compiled by the University Center for Economic Development and Planning, California State University, Chico (Glenn County Profile, 1991), Glenn County has a proportionately high average annual unemployment rate in comparison to the rate for the balance of California and the national average. In 1989, the annual unemployment rate in Glenn County was 11.9 percent; in contrast, the Statewide rate for the same year was only 5.1 percent and the nationwide average was 5.3 percent. For 1990, the annual unemployment rates were 12.5 percent in Glenn County and 5.6 percent in California as a whole. Nationwide figures for 1990 were not yet available at the time of this writing. The total labor force in Glenn County numbers an estimated 10,350 workers; the average number of those workers employed is about 9,050. Of corollary interest, although not directly corresponding, is the percentage (12.5) of county residents receiving some form of public assistance through the County's Department of Social Services in June, 1991.

A significant characteristic of employment in Glenn County is the seasonal fluctuation in the availability of job opportunities. As is typical of California's more rural, agricultural regions, seasonal, agriculturally-oriented jobs result in high unemployment rates during the winter months and comparatively low rates during the summer and fall harvest seasons. Historically, Glenn County's unemployment rates on a monthly basis have reflected this pattern consistently from year to year, with unemployment dropping to well below ten percent from May through October, but rising to fifteen percent or more from December through March. It should be noted, however, that employment data maintained by the State Employment Development Department for 1991 in Glenn County indicate consistently high monthly unemployment rates, even through spring and summer, near eighteen percent.

According to the University Center's Glenn County Profile, previously referenced, the per capita personal income in Glenn County in 1989 was \$16,185. This income level ranked twenty-sixth among California's fifty-eight counties. As the Profile notes, this per capita personal income represented only eighty-one percent of the Statewide average (\$19,929) for 1989 and ninety-two percent of the national average (\$17,596) for the same period. Growth in personal income in Glenn County for the decade 1979 to 1989, according to data supplied by the University Center, was 5.1 percent annually; growth in Statewide personal income over the same period averaged 6.5 percent per year, and personal income growth nationwide totaled 6.9 percent annually. From this data it can be ascertained that, in general, the average Glenn County wage earner kept up with inflation during the 1980's, but growth in local earnings and corresponding purchasing power did not increase as rapidly for Glenn County workers as for workers elsewhere in the State and nation.

4.6.1 Agriculture

Historically, agriculture has been one of the dominant segments of the Glenn County economy. Intensive agricultural production has been a significant activity since the initial settlement of the county. According to the State of California Employment Development Department (EDD), agriculture represented the single largest source of private sector employment in Glenn County in 1990. Rice grown in the eastern, valley floor portion of the county represents the single most substantial agricultural commodity produced in Glenn County. In 1990, rice accounted for over \$50 million in crop value, compared to the \$27.2 million in value attributable to dairy products, the next most valuable commodity. Almonds, prunes, cattle, hay and alfalfa, sugar beets, wheat, walnuts, and olives comprised the balance of the ten most valuable agricultural commodities in the county last year. Other significant commodities produced in Glenn County include seed crops and nursery products.

Discussions with the Glenn County Agricultural Commissioner's office disclose that the rice industry in the county is subject to fluctuation in both production levels and value from year to year, based upon water availability in the case of the former and upon price and federal subsidy programs in the instance of the latter. In general, however, these levels do not vary significantly, and the predominant role of rice production in the local agricultural economy is anticipated to continue. No other major trends are foreseen by the Agricultural Commissioner's office in county agriculture. Proportionately minor growth is anticipated in the dairy industry locally, as metropolitan area dairy facilities are displaced by urban growth in other parts of the State and some such facilities relocate to Glenn County. Tomato production may also undergo local growth if new plant varieties are introduced into the region, particularly in Colusa County, with some "spillover" into Glenn County.

Agricultural employment in Glenn County in 1989 represented 21.8 percent of the total countywide jobs base. As is true throughout much of California, employment in agriculture has declined somewhat in Glenn County in recent years -- from 24.3 percent in 1972 and 26.3 percent in 1980. In terms of real jobs, there were 1,375 persons employed in agriculture in the county in 1972; 2,200 individuals held agricultural jobs in 1980; and 1,725 agricultural jobs existed in Glenn County in 1989. It should be noted, however, that these totals include persons employed in forestry, which has been subject to a more rapid decline than agriculture in general over the past decade, and consequently real agricultural employment is actually now comparatively constant in terms of numbers of local jobs available. However, as employment in

other sectors of the county's economy may increase, the percentage of countywide employment attributable to agricultural jobs can be expected to continue to decrease.

Agriculture is a particularly fragile segment of the economy, in some respects, upon which to be as heavily dependent as Glenn County is for employment, income and economic stability. In addition to the seasonal profile of agricultural employment, agricultural production is susceptible to climatic factors (e.g. the 1990 freeze, the five-year drought) beyond human control; a variable U.S. dollar value against foreign currencies, affecting overseas marketability of agricultural products; federal policies regarding subsidies and assistance to farmers; and the federal and State regulatory environments, which govern, and increasingly constrain, such agricultural operations as pesticide and herbicide application, waste burning, irrigation water, and employee/employer relations.

4.6.2 Forestry

The western portion of Glenn County is encompassed within the boundaries of the Mendocino National Forest, which occupies about 1,397.5 square miles and includes portions of six counties in the region. Approximately twenty-two percent of Glenn County's total land area lies within forest boundaries.

Data from the Glenn County Profile indicate that the value of harvested timber in Glenn County in 1990 was approximately \$4.8 million. About 4.4 percent of the county's total workforce was employed in forestry-related industry in 1990, representing roughly 425 jobs, making this sector of the county's economy the sixth largest among categories of major employers. Approximately sixty percent of all forest-related employment is attributable to timber management programs and activities.

For decades, the harvesting of timber in the National Forest has been a substantial source of economic activity in Glenn County and the surrounding region. However, projections by the U.S. Forest Service (USFS) suggest that timber production in the Mendocino National Forest may decline to less than thirty to forty percent of levels prevalent in the 1980's. Substantially affecting timber production potential in the Mendocino National Forest are the recent listing of the northern spotted owl as a threatened wildlife species, recent and pending legislation, recent lawsuits, and increased regulation of private timber harvesting. Regionally, lumber mills have closed down or been consolidated into major milling centers. The role of the timber industry, and of forestry in general, is not expected to grow in relationship to the balance of the Glenn County economy.

4.6.3 Tourism

Tourism in Glenn County, principally capitalizing on the area's natural resources in the form of forest lands, the Sacramento River, native and migratory wildlife, and to a lesser extent, agriculture, currently occupies a proportionately small niche in the area's economy. Existing attractions which are generally acknowledged to draw visitors to the county from out of the area include the camping and recreational facilities operated by the U.S. Forest Service in the western portion of the county; the Sacramento Valley National Wildlife Refuge just south of Willows; pheasant and migratory waterfowl hunting activities distributed throughout the easterly portion of the county; farming and agricultural activities on private properties throughout the county; and water-oriented recreational activities on reservoirs located in western Glenn County and

along the Sacramento River. To some degree, the service sector of the county's economy is supported by incidental traveler-generated business from traffic on Interstate Highway Route 5 (I-5), as well.

There are currently virtually no statistical data sources available which would quantitatively describe the general level of tourism activity in the county. The Mendocino National Forest maintains statistics for recreational use of the forest, but record data is kept for the forest as a whole and is not readily available on a county-by-county basis. Moreover, the most recent comprehensive data supplied is current only through 1983, although Forest Service personnel are knowledgeable regarding present-day activity levels. According to Forest Service sources, the Mendocino National Forest experienced approximately 934,000 recreation visitor days in 1983, an increase of about 10.4 percent per year over the preceding five-year period. Of this total, 26.3 percent was comprised of utilization of developed recreation facilities in the forest; the remaining three-quarters was in the form of what the Forest Service refers to as "dispersed recreation". The Forest Service projects that population growth in the Mendocino National Forest's "recreation zone", the area lying within two hours' drive from the forest boundaries, will occur at a rate of 2.8 percent annually for the next fifty years. Based upon this growth rate, the Forest Service forecasts that the Mendocino National Forest has a land base sufficient to meet expected recreation demand up to the year 2030.

Two goals of the USFS pertinent to rural economic development are to add stability and stimulate rural economies and maximize tourism in the National Forests. There are a few programs that have been adopted to achieve these goals. One such program provides a limited number of grants to counties for economic diversification studies to identify rural development activities and projects in or adjacent to a National Forest. Another program sponsored by the USFS provides for a marketing plan developed by a county that publicizes the camping and recreational opportunities in and/or near National Forest land. At this time, there are no programs underway by Glenn County that are sponsored by the USFS. However, the USFS periodically invites proposals for their programs, at which time Glenn County, along with other counties, has the opportunity to submit proposals (Pers. comm., Jim Giachino, 1991).

The Sacramento National Wildlife Refuge, located immediately southeast of the City of Willows, also maintains statistics on visitor activity levels on an annual basis. Operated by the U.S. Fish and Wildlife Service, Department of the Interior, the Sacramento National Wildlife Refuge is one of a network of four such facilities located in the Glenn/Colusa/Sutter County region. Serving as the headquarters for the Sacramento Valley Wildlife Refuges, the Sacramento National Wildlife Refuge offers a visitor center, a six-mile automobile tour, a walking tour, photography blinds, guided group tours and other opportunities and services related to wildlife observation. Portions of the refuge also are open to hunting during October and January each year and are open to fishing activities from February to October in designated areas. Among the four refuges comprising the network, the Sacramento National Wildlife Refuge experiences the greatest visitor activity. This is at least partially attributable to its location immediately adjacent to I-5, with a program of recently-installed freeway signage directing passers-by to the facility. In calendar year 1990, the Sacramento National Wildlife Refuge attracted approximately 61,000 visitors and an additional 6,000 hunters. According to refuge staff, the majority of visits to the facility take place between October and March annually, corresponding to the migratory waterfowl season. November and December are the peak months for visitor traffic. As new

facilities (e.g. an observation tower) are constructed at the refuge, staff expect total visitation activities to increase.

It is reported by Glenn County officials that observable increases in travel to the area by nonlocal visitors occur during the fall hunting season. Upland bird and migratory waterfowl hunting on portions of the area's wildlife refuges, as well as on some privately-owned properties, is known to attract large numbers of out-of-area residents to the county, often for periods involving overnight stays.

In November, 1990, a study prepared under the auspices of the Glenn County Economic Development Corporation was published on tourism potential in Glenn County. That study focused on the extent to which farm operation visitation programs could be enhanced, identified potential for wildlife and nature-oriented activities to be expanded as a local tourist attraction, suggested that a series of sports activities could be conducted in the county to attract additional visitors, and hypothesized that various "special events" might be successful in drawing tourism trade to the county and region. According to the study, there is already a limited amount of visitor activity on local farms and ranches; County Planning Department officials further indicate that policies accommodating tourism are being worked de facto into the administration of the County's zoning ordinance. There was only limited response, however, during the study to inquiries among area agricultural property owners regarding their interest in hosting farm and ranch-oriented tourist activities. At least some local officials active in economic development in Glenn County have expressed skepticism regarding the potential effectiveness of a farm visitation program as an economic enhancement strategy.

Current traffic volumes on I-5 passing through Glenn County are reported in Section 4.3. In recent years, highway-oriented commercial uses (e.g. restaurants, fast food outlets, motels, and gasoline sales and service) have been developed at one freeway interchange in Willows to capture a portion of the business typically generated by such highway traffic. Similar development in Orland is constrained by current jurisdictional boundaries, property ownership and configuration, and the absence of any identifiable entrepreneurial initiative. Tourism traffic through the county utilizing I-5 is generally comprised of motorists traveling between California's metropolitan areas to the south and Lake Shasta, the Lassen National Park area, Mount Shasta recreational areas and the Pacific Northwest.

The U.S. Forest Service is coordinating the paving of Forest Highway 7 (Alder Springs Road) from approximately Alder Springs in Glenn County to Covelo in Mendocino County. This process is expected to occur in two phases. The first phase involves the repairing and asphalt repaving from the terminus of State Highway 162 to Alder Springs. It is anticipated that phase one will commence in 1993 or 1994 and conclude three years later. In the second phase, the unpaved portion will be asphalt paved and widened at various points according to federal and state standards. The entire project is expected to be completed in 10 to 15 years and is being sponsored in part by Federal Highway Funds and in part by the USFS (pers. comm., Gianchino, 1991).

4.6.4 Retail

Retail trade in Glenn County represents a somewhat smaller proportionate source of employment and corresponding economic activity locally than is true for the State of California as a whole. In

1989, approximately 13.2 percent of Glenn County employment was in the retail sector of the economy. For the same period, 17.1 percent of the Statewide labor force was employed in retail trade. It is worth noting, as well, that Glenn County's percentage of employment in retail outlets is substantially lower than the percentages for adjacent Butte (22.7 percent) and Tehama (20.4 percent) Counties. This disparity suggests that Glenn County retail outlets capture proportionately less of the regionally-generated retail trade than do outlets in other nearby counties.

Annual taxable sales in Glenn County in 1990 totaled approximately \$172 million (see Table 4-41). Retail sales accounted for about \$89.2 million of that total. Per capita taxable sales for that year were approximately \$7,036; per capita retail sales were \$3,646 (see Table 4-42). In contrast, per capita taxable sales for Butte County in 1990 were \$7,723; per capita retail sales were \$5,881. Per capita taxable sales in Chico were \$16,816 in 1990, in comparison to per capita taxable sales in Orland of \$8,884 and per capita taxable sales in Willows of \$7,259 during the same year. Per capita retail sales in Orland and Willows in 1990 were \$6,795 and \$6,165, respectively, while in Chico, per capita 1990 retail sales amounted to \$14,861. Adjusting actual retail and taxable sales data for inflation for the period 1986 to 1990 discloses that, in real dollars, sales activity in Glenn County as a whole, and in the City of Willows, has declined slightly during the past five years. Adjusted taxable sales countywide for the period actually decreased by 3.5 percent, while adjusted retail sales dropped 1.5 percent. Similarly, in Willows for the same period, adjusted taxable sales were down one percent; adjusted retail sales declined 6.2 percent. Only in Orland did adjusted sales actually increase. From 1986 to 1990, total taxable sales, adjusted for inflation, grew by 9.9 percent, while retail sales, after adjustment, showed 10.5 percent growth. It is worth noting that the total number of outlets selling taxable and retail goods remains virtually unchanged in Glenn County from five years ago (see Table 4-43).

It is generally acknowledged that substantial "leakage" of retail sales, particularly for so-called "comparison shopper goods" (e.g. furniture, appliances, automobiles, high-ticket clothing, and electronics) takes place in Glenn County. Many shoppers are presumed to travel to Chico and even to Sacramento to make major retail purchases. Such leakage often occurs in market areas with a population and/or economic base too small to support major comparison shopper goods outlets.

Table 4.6-1

**TABLE 4-41
TOTAL ANNUAL RETAIL AND TAXABLE SALES, BY JURISDICTION,
IN GLENN COUNTY
1986-1990
(000'S)**

	1986		1987		1988		1989		1990	
	Retail	Total	Retail	Total	Retail	Total	Retail	Total	Retail	Total
Orland	25,522	33,543	27,147	33,922	31,857	38,963	32,852	42,387	34,330	44,884
Willows	32,320	36,062	34,683	39,820	35,920	41,006	38,194	44,486	36,917	43,466
Total County		74,376		76,833		83,561	87,755	173,386		89,158
		146,380		145,764		159,836				172,030

Source: California State Board of Equalization

Table 4.6-2

TABLE 4-42
PER CAPITA ANNUAL RETAIL AND TAXABLE SALES, BY JURISDICTION,
IN GLENN COUNTY
1986-1990

	1986	1987	1988	1989	1990
	Retail Total	Retail Total	Retail Total	Retail Total	Retail Total
Orland	5,7107,504	6,0607,572	6,8368,361	6,9608,980	6,7958,884
Willows	6,4707,002	6,6067,585	6,8097,774	7,2068,394	6,1657,259
Total County	3,2486,392	3,3626,379	3,6106,904	3,7187,347	3,6467,036

Sources: California State Board of Equalization; California Department of Finance, Population and Research Unit; U.S. Bureau of the Census

Table 4.6-3

TABLE 4-43
NUMBER OF TAXABLE SALES OUTLETS, BY JURISDICTION,
IN GLENN COUNTY
1986-1990

	1986	1987	1988	1889	1990
	Retail Total	Retail Total	Retail Total	Retail Total	Retail Total
Orland	100203	99198	102207	97204	102219
Willows	92206	96213	98215	96218	94209
Total County	276710	278700	285713	281715	279709

Source: California State Board of Equalization

4.6.5 Industry

Industrial development in Glenn County traditionally has been limited. The predominance of agriculture in the county's historic economic profile has resulted in a concentration of agriculturally-related industries, but diversity among the industrial sector of the county's economy is a missing attribute.

Statistics available from the State's Employment Development Department indicate that approximately one-fifth of the workforce is employed in the manufacturing sector of the Glenn County economy. This figure represents nearly a doubling of manufacturing employment over the past five years and is slightly higher than the statewide rate of industrial employment (about 16.7 percent of the workforce). According to local officials, however, the major industrial employers in the county are predominantly agricultural in orientation. The Manville Building Insulation plant near Willows is the only major nonagricultural industrial employer in the county at the present time.

4.6.6 Other

Among other aspects of the Glenn County economy not specifically discussed above, but regarded to be important to describing the county's economic profile, are real estate and property values, construction activity, natural gas production and government employment.

According to real estate industry contacts, strength in the local real estate market is principally attributable to demand for single-family residences in the \$75,000 to \$100,000 price range.

Several realtors have suggested that there is currently a shortage of listings for homes in this price range. Residences priced up to \$125,000 are perceived to be readily saleable. A substantial portion of this residential real estate demand, local sources indicate, is attributable to buyers seeking to relocate from substantially more expensive Chico-area and Woodland housing markets. In general, although the number of available properties is currently limited and there is, consequently, only minimal sales data available, residential real estate values are characterized by area brokers as rising somewhat at the present time. travel to Chico and even to Sacramento to make major retail purchases. Such leakage often occurs in market areas with a population and/or economic base too small to support major comparison shopper goods outlets.

Conversely, commercial real estate values have been characterized by industry sources as "depressed" or "flat". Realtors contacted indicated that there is little sustained demand for commercial property and generally attribute this to the region's limited population base and comparatively low income levels.

Agricultural property was described by local contacts as characteristically turning over very slowly, given the limited number of ownerships in the county, and values for agricultural lands were labeled as static.

Construction activity levels in Glenn County have been low during the past five years in comparison to those in much of the rest of California. According to data presented in the Tri-County Economic Development Corporation's Statistical Abstract, 1990-91, the county ranked fifty-second among California's fifty-eight counties in total building permits issued between 1984 and 1988. The cities of Willows and Orland ranked 310th and 336th among California municipalities in issued permits for the same period. From 1985 through 1989, 472 housing units were constructed in the county, an average of about ninety-five new units yearly. Construction and mining together (although mining in Glenn County refers principally to the construction-related gravel extraction industry) represent approximately 3.5 percent of the county's employed workforce. Overall, the comparatively inactive construction sector of the local economy corresponds proportionately to the static condition of economic activity in the county across the board.

Refer to Section 2.5 and the Glenn County Energy Element for a discussion of natural gas resources. According to Energy Facility Siting in Glenn County - Working Paper, in 1989 approximately 10.5 billion cubic feet of natural gas (about 2.8 percent of total statewide production) was produced within Glenn County. Known reserves within the county totaled approximately 50 billion cubic feet. As further exploration and drilling occur, new reserves will likely be found and added to the known reserve figure; thus, extraction will likely slow while reserves increase. For this reason, it is anticipated that natural gas production will continue in Glenn County for at least the next twenty years.

Government employment in Glenn County, in contrast to the statewide average of 15.5 percent, represents almost a quarter of countywide employment. Federal employment, including both Forest Service and wildlife refuge employees, amounts to about three percent of the workforce, with State and local government jobs comprising the balance of government employment in the

area. Schools are included as local government agencies for purposes of compiling these employment statistics.

4.6.7 Trends

Several consistent themes were repeated as local public officials, economic development agencies and other interested parties were contacted regarding the condition of the Glenn County economy. First, as the data presented in the preceding pages indicate, the current state of the local economy is not good in comparison to other portions of California and to other regions of the U.S. Succinctly, the availability of employment is limited; what jobs there are pay less, on the average, than work elsewhere in California; countywide employment is restricted predominantly to only a few sectors of the economy; and the combined effects of both low year-round employment and particularly high seasonal unemployment have produced disproportionately high population totals on public assistance program rolls. On a broader scale, this weak economy acts to constrain the overall quality of life capable of being enjoyed by Glenn County residents. In colloquial terminology, the Glenn County economy, and current economic trends locally, may be described as "flat".

What must be done to improve the economic health of the county is the intended focus of the proposed Economic Development Element of the County's General Plan. The essential emphasis of that element will be establishing a Countywide commitment to strategies which:

- Increase the total net number of jobs available in Glenn County, as well as increasing the ratio of available jobs to population;
- Introduce greater diversity into the local employment mix, reducing the extent to which:
- Many (particularly agriculturally-related) jobs are only seasonal in nature, resulting in high off-season unemployment;
- Local employment is concentrated among just a few, potentially declining sectors of the economy (e.g. lumber, agriculture and government);
- Create employment opportunities with wage rates substantially higher than at present in Glenn County, without correspondingly adversely affecting the cost of business for existing local employers;
- Foster a "balanced" economic system in which locally-generated income will be expended and/or reinvested locally to the extent feasible, rather than "exported" from the county in the forms of sales leakage, a commuter workforce, and/or absentee profit-taking;
- Reduce the extent to which public subsistence programs are required to support segments of the county's population; and
- Generally improve the economic position and quality of life of the residents of the county.

At the same time that recent economic trends in Glenn County have been lacking material basis for encouragement, there is potential for a brighter outlook. As is true of many areas in California in the 1980's and early 1990's, Glenn County has identified economic development as a key priority and has formalized commitments of resources to economic development programs and activities in substantial ways. The Glenn Economic Development Corporation (GEDCO) was formed in 1987 with the mandate to assist existing local business retention and expansion and to recruit new businesses to the county. GEDCO is currently under contract to the City of Willows to market that community to developers of commercial or business enterprises. Under the auspices of GEDCO, a feasibility study is being conducted to determine whether Glenn County might qualify and compete for designation as a "recycling market development zone" under the provisions of AB 1322 (1989). A study is also being conducted to determine the feasibility of developing sixty acres at the Orland Airport for industrial park purposes. The City of Willows is creating approximately seven acres of industrial park at the southerly end of that community.

The Tri-County Economic Development Corporation is the operating entity established through an Economic Development Administration (EDA) district encompassing Butte, Tehama and Glenn Counties. The Tri-County EDC's purpose is "to plan and implement a sound, long-term regional economic development program designed to encourage new employment opportunities and to assist small business development." The Tri-County EDC annually prepares an overall economic development program, funded in combination by a planning grant from EDA and a local match from communities in the district. The EDC also administers a nearly \$900,000 U.S. Economic Development Administration Revolving Loan Fund and packages and services Small Business Administration (SBA) program loans.

Tri-County EDC staff is also available to assist member jurisdictions with preparation of applications for state and federal funding for economic development projects, including Community Development Block Grants (CDBG), AB26 Planning and Technical Assistance Grants, and the various EDA grant and loan programs. Additionally, Tri-County EDC also has the capacity, experience and expertise to administer locally capitalized Revolving Loan Funds for municipalities and counties in the District (Pers. comm., Jon C. Gregory, Tri-County Economic Development Corp., September 1991).

California State University, Chico, established its University Center for Economic Development and Planning in September, 1986. Serving a region encompassing over 32,000 square miles and twelve counties, the purpose of the Center is to provide economic development capacity-building assistance to its service area. The Center, utilizing faculty with technical expertise in business administration, computer science, public administration, regional planning, agriculture, and natural resources, supplies research, technical assistance, training and referral services to economic development entities in the area.

In addition, the City of Orland has an Economic Development Commission in place, the City of Willows is actively administering local economic development activities under its own auspices, and the County is increasing its initiative in economic development through the application of its zoning code to various projects and in its undertaking of the preparation of an economic development component of the current General Plan revision project. Notwithstanding a predictable amount of concern regarding proportionate relationship between investment and

return of public resources, the impacts of growth on the county's environment and ambience, and the politics of who benefits and who pays for economic growth, the overall popular and policy commitment to economic development in Glenn County appears to be generally strong.

The desirability of such programs and activities is underscored by projections included in the State Employment Development Department's analysis of industry trends and outlook in Glenn County. According to EDD, only 250 net additional jobs are anticipated in the county between the present and 1993. Agricultural employment is expected to remain at existing levels. Manufacturing employment is expected to decrease by approximately 200 jobs, and construction and mining employment is forecasted to increase by seventy-five jobs. Transportation and public utilities employment is expected to grow by twenty-five jobs, and retail trade is projected to add seventy-five jobs by 1993. The services sector of the economy will add 125 jobs, according to EDD, principally in health services, membership organizations, business services and lodging. Government employment is forecasted to grow by 100 jobs, primarily in education to meet demands generated by population growth.

Trends identified by local officials potentially affecting the Glenn County economy include the following:

- The possible displacement of industries from the Chico metropolitan area, as population growth and resultant economic dislocation of industrial sites occurs, is foreseen by some. It is speculated that such industries may seek Glenn County locations, to maintain their current employment base. A related trend has been housing construction in Glenn County, particularly in Orland, absorbed by residents working in Chico but seeking more affordable housing opportunities than are available in the larger communities. According to several sources, however, housing prices in Chico are also decreasing substantially from levels reached several months ago.
- The possible imposition of restrictive rules on the burning of rice fields following annual harvest to achieve air quality objectives and on pumping of irrigation water from the Sacramento River is anticipated to have potentially significant effects on the economic role of this crop in the area. Similarly, drought-imposed cutbacks in available State and federal water sources for the rice industry may curtail production and corresponding crop value and employment.
- The substantial number of recipients in the county of public assistance are viewed as both a source of stress on local government financial resources and a limited source of support for other segments of the economy.
- Investment by the federal government in improvements at the Sacramento National Wildlife Refuge may result in more visitors being attracted to this facility annually.
- As supplies in other portions of the State or region are exhausted, the county's aggregate resources may become economically viable for marketing on a broader scale than is currently economically feasible.

- Increasingly, constrained State and local government financing limits the extent to which these sectors of the local economy can continue to grow and to contribute proportionately to Glenn County's economic vitality.

4.7 ANALYSIS OF ISSUES, OPPORTUNITIES AND CONSTRAINTS

The community profile of Glenn County presented in this chapter identifies a region which has been largely unaffected to date by the unprecedented growth, and its accompanying opportunities and problems, impacting many areas of California. This situation may be on the verge of changing.

Population growth has been slow but steady, occurring for the most part in the cities of Willows and Orland. It has shown a greater rate of growth in the last three years. Housing is still affordable in the context of California and the Sacramento region, although not necessarily to local residents. Public services and facilities have been able, for the most part, to keep up with local needs. One notable exception to this observation is the current condition of County roads. As in other primarily agricultural counties in California, Glenn County government faces difficulties in balancing local needs and desires for public services with State-mandated services.

The General Plan revision process affords the opportunity to plan for the physical development of the county in a way that maximizes the ability of public service providers to plan for efficient service delivery in a proactive, rather than reactive, fashion. Because land use and circulation (traffic, roads) plans must be consistent, the General Plan revision process requires the County to make choices regarding the provision of adequate roadways or other transportation modes to serve proposed development (or, alternatively, assuring that new development will not overburden existing roadways).

The issues surrounding the state of the economy in Glenn County are summarized below, focusing on a lack of diversity, low wages, and difficulties facing agriculture, timber and government. There are, however, based upon preliminary analysis and the judgment of many others who have evaluated, and are responsible for, the potential enhancement of Glenn County's economy, at least some opportunities for appreciable economic development and improvement in the area. These opportunities are also outlined below.

Some factors to be considered in the General Plan revision process include:

- Data shows that housing needs focus on rehabilitation, overcrowding, farm labor housing, and new housing for moderate and high income households.
- The lack of a direct highway route to the coast may inhibit some tourism opportunities.
- Highway 32 may be characterized as having an inadequate level of service in the vicinity of Orland and Hamilton City.
- There is a need for major capital expenditures to improve the existing road network.

- The lack of commercial air service, passenger train service, and limited public transportation place limitations on travel within and through the county, other than by private automobile.
- The percentage of heavy truck traffic on I-5 demonstrates the important role that freeway plays in the economy of the county and the Western States.
- Potential bike routes have been identified on the east side of I-5 and on Bayliss-Blue Gum Road.
- The availability of water represents an opportunity for attracting business and industry to the county.
- Limitations on septic systems and lack of sewer systems may represent a constraint on new development in certain areas.
- The county's economy is comparatively lacking in diversity, with nearly two-thirds of all employment locally being concentrated in agriculture, agriculturally-oriented industries and government. Agriculture and government are particularly "fragile" segments of the economy upon which to be dependent for economic vitality, given current conditions and trends in California.
- The present distribution of employment in Glenn County results in large portions of the work force being employed in comparatively low-paying jobs. Correspondingly, disposable per capita and per household income are relatively low, as well, contributing to the overall static state of the economy and suppressing the area's general standard of living.

Among the factors contributing to the prospective opportunity for Glenn County to successfully undertake economic improvement programs are:

- Local public and political commitment to economic development is evident. The number and types of organizational resources dedicated to economic development in the area is substantial, and the capabilities of the "system" in the county to successfully undertake economic development programs are excellent. Local leaders, University faculty members with specialized expertise, professional economic development staffs, and government agency staffs are all evidently well-prepared and unusually qualified to pursue the county's economic improvement agenda.
- The county has a readily available, low-cost labor force potential to offer to new industry. Glenn County's year-round unemployment rate, although costly in both economic and social terms, simultaneously represents an accessible pool of prospective workers for unskilled and semi-skilled employment at probable low cost to industry.
- The general flight of industry from the State's urban areas to more rural settings, including the previously-referenced displacement of industry from the expanding Chico area, may result in businesses being interested in Glenn County as a potential base of operations. The county has excellent highway transportation access, adequate rail access, and is not so

remote from urban area shipping terminals and markets that it is infeasible as an industrial location.

- The two airports located in Willows and Orland offer some opportunity to attract smaller industries and businesses. Although growth in general aviation nationwide is projected to be relatively flat, airport facilities have been demonstrated to be attractive to a number of types of small businesses as sites for operations.
- The availability of a substantial number of National Forest campgrounds and other recreational opportunities will attract visitors to the county. The southerly I-5 corridor through Glenn County particularly may be positioned to capitalize upon such visitor traffic as it passes through from the Sacramento area to forest destinations.
- Overall, the county's highway and service commercial sectors of the economy may not be capturing the share of traffic-generated business along I-5 that may be possible.
- The wildlife refuges in the region, particularly as visitor amenities improve, will continue to attract thousands of visitors annually to Glenn County. The extent to which these visitors can be induced to stay and spend money locally is indeterminate, but may represent a substantial potential opportunity.
- The county's aggregate resources may have an expanded market in future years. Although not proportionately employment-intensive, this segment of the economy would provide some additional jobs and income to county residents.
- The tourism study previously performed for the County identifies farm and ranch-related tours and special events as potential attractions for tourism in Glenn County.
- The presence of California State University, Chico, and to a somewhat lesser extent, Butte Community College in close proximity to Glenn County represents a substantial resource. Technical assistance to businesses, the appeal of a university environment, training and research capabilities, and other factors make the two colleges an attribute in attracting and retaining businesses locally.
- Glenn County currently has several operational natural gas fields that produce significant amounts of natural gas. There remain significant deposits of natural gas that are expected to be extracted throughout the next twenty years.
- The State Department of Water Resources has conducted engineering feasibility studies that demonstrate significant hydroelectric development potential in western Glenn County.
- The county's predominant agricultural sector provides significant potential for biomass energy production.

Overall, opportunities for economic development in Glenn County are evident. It should be stressed, however, that there is no one segment of the economy which apparently has the

potential to, by itself, have a major effect on the enhancement of local economic activity. Briefly, the constraints operating to limit the county's economic development potential include:

- The commitment of substantial portions of valley floor land to agriculture, including many parcels under Williamson Act contracts along the I-5 corridor, limits development potential for industrial and highway-oriented commercial uses. Similarly, property owners with little inclination to develop and/or unrealistic economic expectations pertaining to development may retard local ability to capitalize on the I-5 corridor as an economic resource.
- Expansion of the tourism economy associated with the National Forest and the wildlife refuges will be incremental. There is not sufficient capacity and/or potential activity associated with either of these resources to have "wholesale" impacts on the local economy. Moreover, the "multiplier" effects on the local economy of tourism-related activities such as camping are comparatively minimal.
- The labor force available to industry in Glenn County is comparatively untrained and unskilled. Some industries require a greater diversity of education and training than is currently available in labor resident to the county.
- It is difficult to attract businesses and industry to communities which are not large enough to offer substantial amenities. Although the rural environment and lifestyle offered in Glenn County are appealing to many, analysis of industrial site location decisions across the nation indicates that community amenities rank relatively high on decision-makers' lists of criteria.
- While there are clearly benefits that would be associated with new energy facilities in the county (less reliance on outside sources, increased tax base, etc.), such benefits must be carefully balanced with the potential environmental "costs" that such facilities may incur.

5.0 RELATIONSHIP TO OTHER PLANS

5.1 CITIES OF WILLOWS AND ORLAND

Orland Land Use and Circulation Element

It is stated in the Summary of the City's Land Use and Circulation Element that one of the primary purposes of the Plan is for the City of Orland and Glenn County to jointly coordinate planning within the Orland Service Area and Planning Area, and to establish mutually agreeable procedures in order to develop a consistent land use pattern and circulation system; provide adequate public services and facilities; and to provide for the eventual conversion of these lands to City jurisdiction. In order to maintain consistency between the City and the County, the land use designations, the arterial and collector system, and improvement standards should be reflected in the General Plan, Zoning Code, and Land Division Standards of Glenn County.

It is further stated that the City of Orland shall adopt a single set of road standards uniformly applied to all subdivisions, including parcel maps, and actual development. The City will request that Glenn County adopt these standards for the Orland Service Area. A set of road standards should be jointly developed by the City and County for roads in the Planning Area.

The following goals, objectives, policies and implementation measures are pertinent to the Glenn County General Plan:

Goals

- Assure the coordination of land use, public services and facilities, and circulation and transportation systems in the City and in the Orland Service Area.
- Assure the coordination of land use and circulation systems in the Planning Area.
- Maintain environmental quality by decreasing air pollutants caused by the circulation system within the City, Urban Service Area and Planning Area, and conserve energy used for transportation.

Objectives

- Plan for and guide development, in the City and the Orland Service Area which, to the maximum extent feasible, minimizes the expenditure of public funds for new infrastructure or improvements unless it is for the benefit of existing and future citizens of the City.
- Do not allow the development of lands both in the City and Orland Service Area which do not have a full complement of public services, facilities and utilities unless provisions are made to guarantee their availability in the future.
- Encourage the coordination of land use and circulation planning, public services, facilities, utilities and improvements with Glenn County and other public agencies, as applicable.
- Provide a circulation system which permits the safe and efficient movement of people and goods throughout the City, the Orland Service Area, and the Planning Area.
- Existing City streets and those in the Orland Service Area should be used and improved to serve future development, to the extent feasible, prior to constructing new roads.
- Develop a system of high-standard collector and arterial roads to reduce travel time and improve traffic safety in the City, the Orland Service Area and the Planning Area.
- Formulate and adopt circulation design and improvement standards which are uniformly applied on a citywide basis, in the Orland Service Area and the Planning Area, according to development type.
- Increase, where feasible, the total mileage of safe bike routes, bike trails and pedestrian walkways within the City and Orland Service Area.

Policies and Implementation

- The City of Orland and Glenn County shall jointly coordinate planning within the Orland Service Area and Planning Area and establish mutually agreeable procedures in order to develop a consistent land use pattern and circulation system; provide adequate public services and facilities; provide for the eventual conversion of these lands to City jurisdiction. Land uses and especially infrastructure improvements shall be adequate to meet short and long-term needs and plans. In order to maintain consistency among the jurisdictions, the resulting land use designations, circulation system, and improvement standards should be reflected in the General Plan, Zoning Code, and Land Division Standards of Glenn County.
- The City shall monitor, on a yearly basis, the rate at which the developable land inventory in the City and Orland Service Area is being consumed, the population and employment growth of the City, and other useful indicators of growth.
- In 1990 and thereafter at least every five years, as part of a comprehensive General Plan review, the City shall examine the results of the monitoring process for the previous period. By amendment of this Plan appropriate adjustments shall be made in the inventory of developable land so that it will accommodate the growth projected. The intent of this policy is to insure that the amount of developable land available will always be in adequate supply, at the current ratio, and to gauge when it will become necessary to annex lands in the Orland Service Area.
- A Land Use Capability Analysis shall be used in order to convert Agricultural and Suburban Residential land use categories into other land use districts.
- Encourage Glenn County to maintain compatible land uses adjacent to the City's wastewater treatment plant and ponds. It is recommended that the County General Plan designate lands adjacent to the treatment facilities as Agriculture General or Residential with 10 acre minimum lot sizes with minimum residential building setbacks of 500 feet.
- The City, the Orland Service Area, and the Planning Area shall be divided into Zone of Benefit Districts for planning purposes. All land divisions and development in the City, Orland Service Area, and Planning Area shall be required to pay their respective "fair share" for improvement and maintenance of designated services and facilities benefiting the particular Zone.
- Residential development adjacent to arterials including South Street, Highway 32, Sixth Street, and the proposed Stony Creek and South Street bypasses in the City and Orland Service Area should be designed to minimize the noise impact received from traffic. Circulation improvements shall also be designed with consideration given to noise impacts on adjacent development. For development proposed in the Orland Service Area, the Glenn County Building Department shall automatically refer any building permit for a residence abutting the identified roads to the Glenn County Planning Department for review in order to determine consistency with the Policy.
- The City will encourage the State Department of Transportation to widen State routes and improve vertical and horizontal alignments, intersections, and bridges within the routes to

safely accommodate existing and projected traffic flows. These routes are State Highway 32 and Interstate 5. Inclusion of this policy in the Regional Transportation Plan is recommended.

- The City shall adopt a single set of road standards uniformly applied to all subdivisions, including parcel maps, and actual development. The City will request that Glenn County adopt these standards for the Orland Service Area. A set of road standards should be jointly developed by the City and County for those roads in the Planning Area.
- Roads in the City and in the Orland Service Area serving new land divisions or development shall be served by a paved road, to the extent necessary, to avoid regional air quality impacts and to improve the quality of the existing and future City road system. In lieu of off-site paving the City may permit the subdivider or developer to buy out the paving obligation. In order for this provision to be implemented in the Sphere of Influence of the City, Glenn County will institute such a provision for projects proposed in the Orland Service Area and possibly in the Planning Area.
- The table below delineates the Arterial and Collector Road System for the Orland Service Area and Planning Area. This policy shall require the County of Glenn to adopt the system as proposed for the Orland Service Area and the Planning Area.

Orland Service and Planning Area Arterial and Collector System

- Bryant Street
- Cortina Drive (New)
- County Road 18
- County Road 20
- County Road KK (East Street)
- County Road M (Papst Avenue)
- County Road MM
- County Road MM Extension (New)
- East Street North Extension (New)
- Extension from Cortina Drive to Sixth Street (New)
- Highway 32
- Papst Avenue North Extension (New)
- Shasta Street East Extension (New)
- Sixth Street
- South Railroad Avenue
- South Street
- South Street Bypass (New)
- Stony Creek Bypass (New)
- Yolo Street East Extension (New)

The Orland Service Area includes approximately 1,300 acres and is based on existing infrastructure, current land use, realistic expectations for growth, and the ability to finance the

growth. This area can reasonably be expected to be annexed and adequately served by the City, according to the Plan. The Orland Planning Area encompasses an additional 1,600 acres. Although this area is not envisioned to be annexed to the City, the General Plan does address the need for road improvements and land uses which will not create adverse impacts on the circulation system and land uses in the City and the Service Area.

Orland Area General Plan

The Orland Area General Plan was adopted by the City of Orland and Glenn County in 1991. It is a land use, circulation and zoning plan for the unincorporated area surrounding the City of Orland, as shown in Figure 5-1. The primary purpose of this Plan is to establish policies and provide guidance for growth and development of land adjacent to the City of Orland. Relevant goals, objectives and policies are listed below.

- To preserve agricultural land by encouraging development within the City of Orland and discouraging small lot development of lots less than ten acres in size in the unincorporated area of the county.
- To provide for development which is served by appropriate services and infrastructure.
- To promote development which will provide a balance of jobs and housing for the Orland area.
- To discourage unserved or poorly serviced urban development within the unincorporated area of Glenn County.
- Those areas which are in the Orland Planning Area will not be zoned or designated to allow parcels smaller than ten acres in size prior to annexation.
- Those areas in the unincorporated Planning Area shall be annexed to the City of Orland and shall be developed to full City of Orland development standards.
- Streets and roads shall be developed to City Standards for parcels smaller than 10 acres in size and with connections to existing City streets and to adjacent properties.
- Land in the Planning Area may be used for agriculture or residential uses until such time as development is approved.
- Complete mitigation shall be required of development for public facilities to City Standards for any parcels less than 10 acres in size including roads and bridges, fire protection and other facilities and (or) infrastructure for the protection of health and safety in the Orland Planning Area.

City of Willows Land Use Element

The Land Use Element defines the planning area boundaries for the purpose of the Plan as the existing Sphere of Influence. Policies which are relevant to Glenn County are listed below.

- To establish a land use pattern which will accommodate growth the City of Willows can expect during the planning period.
- To encourage orderly growth in the planning area by encouraging infilling and extension of existing neighborhoods and by discouraging sprawl and scattered development.
- The City should begin to annex vacant parcels adjacent to the City to provide for future residential growth consistent with the goals of this plan.
- The area around the airport should be limited to airport, airport related industry, and other light industrial uses.
- The City will work closely with the area Chamber of Commerce and the County Economic Development Council to encourage new industrial development in Willows.
- The City shall encourage urban development in areas adjacent to existing development so urban expansion into surrounding farmlands is limited or curtailed.
- The City should coordinate the land use plans of the City and the County to insure the conservation of agricultural lands and the elimination of conflicting policies.
- The City shall allow only those types of land uses near the airport that will not conflict with airport operations or activities.
- Proposed land uses near the airport should be referred to the County Airport Land Use Commission for review and comment.

5.2 SPHERES OF INFLUENCE

The Glenn County Local Agency Formation Commission (LAFCO) adopts and maintains sphere of influence boundaries for the cities of Willows and Orland and all special districts within the county (with the exception of school districts). LAFCO is an independent commission composed of two County supervisors, two City Council members, and a public member. A sphere of influence is defined in the California Government Code as a plan for the probable ultimate physical boundaries and service area of a local agency, as determined by LAFCO. In determining the sphere of influence of a local agency, LAFCO considers the following criteria:

- The present and planned land uses in the area, including agricultural and open space lands.
- The present and probable need for public facilities and services in the area.
- The present capacity of public services which the agency provides or is authorized to provide.

- The existence of any social or economic communities of interest in the area.

Annexations of territory to a city or special district must be consistent with (i.e. within) the adopted sphere of influence.

5.3 SPECIAL DISTRICTS

There are six Community Services Districts (CSDs) in Glenn County which provide urban services to the unincorporated communities of Artois, Butte City, Elk Creek, Hamilton City, Ord and Northeast Willows. Although CSDs may provide a variety of services, most of the CSDs in Glenn County are single-purpose districts at this time. Information on the existing CSDs is provided below.

Districts Services

Artois CSD	Water
Butte City CSD	Water
Elk Creek CSD	Water
Hamilton City CSD	Sewer, Lighting, Fire Hydrants
Northeast Willows CSD	Sewer
Ord CSD	Community Hall

As described in Section 3.2, there are ten fire districts in Glenn County, serving the communities and areas of Artois, Bear Valley/Indian Valley, Elk Creek, Glenn-Codora, Glenn-Colusa, Hamilton-Bayliss, Kanawha, Ord, Orland and Willows. Irrigation water is provided by the following active irrigation or water districts:

Glenn-Colusa Irrigation District

The Glenn-Colusa Irrigation District serves 175,000 acres of farmland in Glenn and Colusa Counties and has an annual water supply of 825,000 acre feet from the Sacramento River. The major crop in the District is rice.

Glide Water District

The Glide Water District covers 9,375 acres located between County Roads 48 and 39 west of I-5. The District was formed in 1969 and has been delivering water from the Tehama-Colusa Canal to a portion of the District since 1976 via a temporary distribution system using siphons, creeks and lift pumps. The District has made an application to the U.S. Bureau of Reclamation for a loan to fund the construction of a permanent underground pipeline distribution system.

Kanawha Water District

The Kanawha Water District was formed in 1955 and now covers 16,000 acres. Water is obtained from the Sacramento River via the Tehama-Colusa Canal. The delivery system is entirely underground and all deliveries are metered. Major crops grown in the District include rice, wheat, beans, alfalfa, beets, corn, sunflowers and pasture.

Orland-Artois Water District

The Orland-Artois Water District was formed in 1954 and currently includes 29,033 irrigable acres. Water is obtained from the Sacramento River via the U.S. Bureau of Reclamation (USBR) Tehama Colusa Canal. The distribution system is underground with metered outlets.

Orland Unit Water Users Association

The Orland Unit Water Users Association was started in 1909 and currently supplies water to 20,400 acres around the City of Orland. Water comes from East Park, Stony Gorge and Black Butte Reservoirs and is delivered through a system of open canals and laterals.

Princeton-Codora - Glenn Irrigation District

The Princeton-Codora - Glenn Irrigation District was organized in 1916 and covers 11,500 acres of land in Glenn and Colusa Counties. Water is purchased from the U.S. Bureau of Reclamation and is pumped from the Sacramento River at two pumping plants - one at Sidde Landing north of Glenn and the other at Schaad north of Princeton. Water is distributed through an open canal system to approximately 90 users. The major crop in the District is rice.

Provident Irrigation District

The Provident Irrigation District was started in 1918 and supplies Sacramento River water to 16,041 acres in Glenn and Colusa Counties. The water is distributed by open ditches and canals to approximately fifty customers. Rice is the major crop grown in the District.

4-E Water District

This water district was formed in order to establish an entity eligible to contract with the U.S. Bureau of Reclamation for water from Stony Creek for the 1690 acre ranch in the district.

Stony Creek Water District

The Stony Creek Water District was formed in 1966 and serves 15 ranches in Glenn and Colusa Counties. There is no distribution system but members are responsible for getting their own supplies of water from Big and Little Stony Creek by gravity or pump. The water is mainly used in sprinkler systems.

Hunter Creek Water District

This District serves an area west of Willows, generally encompassing the south half of Section 11 and all of Section 12, Township 18 North, Range 24 West, MDB&M. The District purchases Tehama Colusa Canal Water from the Bureau of Reclamation.

In addition there are two inactive water districts in the county: Capay Rancho Water District and Chrome Water District.

There are two storm drain maintenance districts and a County Service Area which provide storm drainage in Glenn County. They serve the areas southeast of Orland, north of Willows, and the area between the Kanawha Water District and the Willows Airport. They are described in Section 3.5.2 of this document. The Mosquito Abatement District and the Rice Pest Abatement District serve a portion of the southeast area of the county, in and around the City of Willows. There are also eight cemetery districts in the county, three levee maintenance districts, the Air Pollution Control District, and the Glenn County Resource Conservation District.

5.4 COMPREHENSIVE AIRPORT LAND USE PLANS

The Glenn County Airport Land Use Commission (ALUC) is responsible for preparing comprehensive airport land use plans for the area around Orland Airport and Willows Glenn County Airport, according to PUC Section 21675. As part of these plans, the Commission may develop building height restrictions, specify land uses, and determine building standards within the airport planning areas.

These plans determine the criteria which the ALUC uses in evaluating general and specific plans, zoning ordinances and building regulations. Proposals for the adoption or amendment of City or County general and specific plans, zoning ordinances, building regulations, and airport master plans are referred to the Commission prior to final action being taken by the appropriate governing body (City Council or Board of Supervisors).

These plans present policies addressing land use compatibility with the airports' noise, airspace protection, safety and general nuisance impacts. Standards and criteria are necessary to insure that no new land use or expansion of an existing land use is permitted within any part of an airport's area of influence which may result in a hazard to aircraft using the airport or any aircraft-related hazard to the health or safety of persons on the ground. Standards also address lands needed for airport facilities and airport-related land uses. The ALUC has no authority to enforce removal of pre-existing land uses which do not conform to the criteria and standards outlined in this document.

Orland (Haigh Field) Airport

The land use planning boundaries for the Orland Haigh Field Airport are shown in Figure 5-2. The Plan for Orland Airport includes the following goals, objectives and policies:

- To provide for the orderly growth of the Orland Airport and the area surrounding the airport within the identified planning boundaries, and to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.

- To provide the County of Glenn and the City of Orland with comprehensive land use policies designed to protect the viability and growth-potential of the airport, and to contribute to the safe and efficient use of the airport by ensuring compatible land uses in the vicinity of the airport.
- To include a long-range master plan for the airport that reflects the anticipated growth of the airport during the next 20 years.
- The Commission may, at its own discretion, request information and review any project occurring within the airport's referral area. Such projects, however, need not be routinely submitted to the Commission for review.

The Clear Zone Safety Areas, Approach Zone Safety Areas and Overflight Safety Area for the Orland Haigh Field Airport Land Use Plan are indicated on maps included in the Plan. Table 1 of the Plan sets forth Land Use Guidelines for the respective safety areas.

- It is a policy of this Plan that these guidelines be applied in the planning, zoning and project review of land use within the recognized airport safety areas.
- Land use or land use characteristics which may affect safe air navigation or which, because of their nature and proximity to an airport, may pose high risks to the land users shall be avoided in the vicinity of an airport.

The Plan also includes policies which address noise compatibility, height restrictions, general nuisance, and future facility development. It includes the following policy regarding airport related land uses as well:

- Airport related land uses located at Orland Haigh Field Airport shall be restricted to industrial, commercial and public facility uses contiguous to the airfield or immediately adjacent as long as county dedicated access to public roads and the runway is provided.

Willows Glenn County Airport

The land use planning boundaries for Willows Glenn County Airport are shown in Figure 5-3. The Plan for this airport includes the following goals, objectives and policies:

- To provide for the orderly growth of the Willows Glenn County Airport and the area surrounding the airport within the identified planning boundary, and to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.
- To provide the County of Glenn and the City of Willows with comprehensive land use policies designed to protect the viability and growth-potential of the airport, and to contribute to the safe and efficient use of the airport by ensuring compatible land uses in the vicinity of the airport.

- To include a long-range master plan for the airport that reflects the anticipated growth of the airport during the next 20 years.
- All proposed projects within the Planning Area Boundary shall be referred to the Airport Land Use Commission.
- The Commission may, at its own discretion, request information and review any project occurring within the airport's referral area. Such projects, however, need not be routinely submitted to the Commission for review.

The Clear Zone Safety Areas, Approach Zone Safety Areas and Overflight Safety Area for the Willows Glenn County Airport Land Use Plan are indicated on maps included in the Plan. Table 1 of the Plan sets forth Land Use Guidelines for the respective safety areas. This Plan includes the same policies as the Orland Haigh Field Airport Land Use Plan regarding application of the Guidelines, noise compatibility, height restrictions, general nuisance, future facility development, and airport related land uses.

5.5 NORTHERN SACRAMENTO VALLEY AIR BASIN 1991 DRAFT AIR QUALITY ATTAINMENT PLAN

The Draft Air Quality Attainment Plan for the Northern Sacramento Valley Air Basin (NSVAB, which includes the counties of Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba) has been prepared for submittal to the Air Resources Board in compliance with the California Clean Air Act of 1988. The Plan is designed to achieve a reduction in districtwide emissions of five percent or more per year for each non-attainment pollutant or its precursors, averaged every consecutive 3-year period. By law, the five percent requirement is calculated against the 1987 actual emission level of each non-attainment pollutant or its precursor.

According to the draft Plan, it does not demonstrate a five percent reduction of the pollutant levels, as the control efficiencies and cost-effectiveness are not available for many of the proposed control strategies. The Plan states that it does, however, include every feasible control measure and a schedule of adoption for the control measures.

According to the draft Plan, Glenn County must reduce reactive organic gases (ROG) emissions by 4.24 tons per day and reduce nitrogen oxides (NOX) emissions by 4.60 tons per day by 1994 in order to comply with the requirements of the California Clean Air Act. The County must reduce ROG emissions by 6.07 tons per day and reduce NOX emissions by 6.54 tons per day by 1997, and must reduce ROG emissions by 7.88 tons per day and reduce NOX emissions by 8.50 tons per day by 2000.

The draft Plan contains proposed community contact, educational and public information elements designed to reduce emissions from transportation and areawide sources. The Plan also contains a list of feasible control measures, which are proposed to be implemented according to the following schedule:

- All measures ranked #1 shall be proposed and implemented by applicable Districts no later than July 1, 1992.
- All measures ranked #2 shall be proposed and implemented by applicable Districts no later than July 1, 1993.
- All measures ranked #3 shall be proposed and implemented by applicable Districts no later than July 1, 1994 only if attainment of the State ambient air standard for ozone is not achieved by January 1, 1994.

The ranking of feasible control measures is based upon technical feasibility, cost-effectiveness, emission reduction potential, rate of emission reductions, public acceptability, and enforceability. The control measures include a new source review rule (requirements for permitting new and modified stationary sources of air pollution), indirect source review (sources which generate or attract motor vehicle activity, including shopping centers, residential and commercial developments, government buildings, medical facilities, office buildings, hospitals, hotels, restaurants, etc.), and transportation control measures, for which each district will develop measures that are appropriate for only its own jurisdiction.

5.6 REGIONAL TRANSPORTATION PLAN

The Glenn County Transportation Commission was designated as a single-county Regional Transportation Planning Agency (RTPA). State law requires each RTPA to prepare and adopt a Regional Transportation Plan (RTP) every two years (even-numbered years) and/or recertify the present RTP. The Plan includes goals, objectives and policies, an action element (a collection of five-year, short-range actions necessary to achieve Glenn County's transportation objectives, including capital projects, administrative and operational commitments and institutional arrangements necessary to implement the desired transportation systems), and a financial plan. The Plan identifies the top three Glenn County concerns as follows:

1. Maintaining I-5 to the high standards required for the benefit of the local economy;
2. Rehabilitating local farm-to-market roads to facilitate the movement of agricultural field produce to consumers; and
3. Implementing adequate drainage and flood control measures to extend the life of the existing roadway network, limit on-going maintenance costs and improve mobility.

Goals, objectives and policies contained in the Plan which are relevant to the General Plan include:

- To achieve a diverse, flexible, affordable and balanced multimodal transportation system for the region at the lowest reasonable cost that satisfies the needs of the county for rapid, efficient, comfortable, and safe passage of people and commodities through and within Glenn County. The system must be capable of serving the social and economic needs of the region, promoting sound land use and minimizing adverse impacts upon the environment.

- Provide a regional transportation plan which achieves the transportation goals and objectives of the General Plans of the cities and County while recognizing the interdependence of State, regional and local planning.
- Review State Systems Management Plans and circulation elements of local general plans to insure the appropriate information is included in the Regional Transportation Plan.
- The Glenn County Regional Transportation Plan is to be consistent with local General Plans and the Emergency Services Plans.
- Encourage preparation and regular updates of master plans for the Willows and Orland airports.
- Develop a bicycle plan that will provide bicycle facilities as needed.
- Support preparation of a plan that will provide for safe transportation route alternatives during natural disasters in the area, such as flooding.
- All regional transportation planning shall be coordinated with appropriate regulatory agencies to achieve present and future air, noise, and water quality standards.

5.7 HAZARDOUS WASTE MANAGEMENT PLAN

The Glenn County Hazardous Waste Management Plan, adopted in 1988, was prepared in accordance with State law (AB 2948) and the Guidelines prepared by the State Department of Health Services. State law also requires that the State-approved Plan be adopted by ordinance or as part of the County and City General Plans. Pertinent goals, objectives and policies of the Plan include the following:

- Approval of proposed hazardous waste management facilities that do not exceed Glenn County's "fair share" will depend on siting criteria and other criteria required by existing law, unless effective interjurisdictional agreements provide for adequate hazardous waste management capacity for the specific hazardous waste which the facility would have handled in another California county.
- Glenn County can reject a proposed hazardous waste management facility/project that exceeds its "fair share", if there are effective interjurisdictional agreements for the management of the specific hazardous waste generated in the county or there is adequate capacity to handle these wastes in the county.
- If adequate capacity does not exist in the county, or effective interjurisdictional agreements do not exist, Glenn County shall not reject hazardous waste management proposals that exceed "fair share" if the proponent demonstrates that the "fair share" (i.e. smaller) facility is economically non-viable, except in cases in which the County demonstrates that there are appreciably increased public health and/or environmental risks associated with the proposed facility.

- Routes for transportation of hazardous wastes shall be established.
- Any new hazardous waste storage, treatment or disposal facilities approved in Glenn County shall meet the criteria established in the County Hazardous Waste Management Plan.
- The importance of small businesses and agriculture to the county economy shall be recognized by this Plan.
- The use of hazardous materials to manufacture necessary goods and equipment shall be recognized by this Plan.
- The County Hazardous Waste Management Plan shall be incorporated into the County General Plan within 180 days after it is approved by the State of California Department of Health Services.
- Cooperation with adjacent counties for regional hazardous waste management shall be examined and mitigation of impacts on counties accepting hazardous waste from Glenn County shall be considered. Glenn County may become a site for hazardous waste treatment, storage or disposal.
- Any new hazardous waste storage, treatment or disposal facilities approved in Glenn County shall meet the criteria established in the County Hazardous Waste Management Plan.

The Plan also includes siting criteria for proposed specified hazardous waste management facilities, and designates general areas of the cities and county where the criteria might apply. Included are criteria that hazardous waste repositories shall be located 2000 feet or more away from any residential unit, and that facilities shall not be located on land which is prime agricultural land and shall not be located on land which is under a Williamson Act contract. The criteria also provide that facilities shall be located in areas designated as Public Facility, Agriculture Intensive, Industrial or Commercial/Industrial Reserve on the Land Use Element of the City or County General Plan. The general areas where criteria might allow various types of facilities to be located are shown in the maps on pages 91-97 of the County Hazardous Waste Management Plan. The Plan also specifies hazardous materials delivery routes.

5.8 WEST ORLAND SPECIFIC PLAN

The West Orland Specific Plan was adopted by the Board of Supervisors in 1986 encompassing an area west of the City of Orland and north of County Road 200. The Specific Plan was prepared to determine the most desirable pattern of development for this area, the basic facilities required, and the costs of these facilities. The adopted land use and circulation plan for West Orland is shown in Figure 5-4. It is anticipated that this plan will be incorporated as part of the revised Glenn County General Plan. Relevant objectives and policies of the Specific Plan are listed below.

- Orderly growth and development shall be encouraged within the West Orland Specific Plan Planning Area. This development shall be consistent with the Glenn County General Plan and its implementation ordinances.

- Safe, adequate public access for motor vehicles and pedestrians shall be encouraged.
- Development shall be coordinated with public service capabilities.
- Comprehensive economic development efforts to the long term benefit of the county shall be encouraged in the West Orland Specific Planning area.
- Encourage agriculture by supporting land uses that preclude intrusion of incompatible development into prime agricultural areas.
- The extension of water or sewer infrastructure into agricultural areas west of Road DD shall be discouraged.
- Viable farmlands and viable grazing lands in Glenn County are valuable long term resources. Those lands designated Class I and II west of Road DD shall be preserved.

The Plan assumes that the West Orland Specific Plan area is highly unlikely to be annexed to the City of Orland or to be developed to a density which would allow incorporation, and that the area is unlikely to be served with a public sewer system.

5.9 ANALYSIS OF ISSUES, OPPORTUNITIES AND CONSTRAINTS

The existing Glenn County General Plan consists of Land Use, Circulation, Housing, Conservation Management, Safety, Seismic Safety, Noise, and Scenic Highways elements and a Fire Safety sub-element. The revised General Plan will consist of Natural Resources, Public Safety, Community Development and Energy elements. State law requires that the County's General Plan be "internally consistent". According to the State General Plan Guidelines, the concept of internal consistency, as used in California Planning Law, means that no policy conflicts exist, either in the Plan text or maps, between any components of the General Plan. The Guidelines identify five aspects of the internal consistency requirement:

- (1) All elements of the General Plan have equal status. No element is subordinate to another, thus conflicts between elements cannot be resolved by stating that one element supersedes another.
- (2) All General Plan elements, whether mandatory or optional, must be consistent with each other. The assumptions, projections, and standards used in each element must be uniform and consistent. This is most easily assured when the entire General Plan is revised at one time, as Glenn County is doing.
- (3) Within each General Plan element, the data, analysis, goals, policies and implementation programs must be consistent and complementary.
- (4) Area, community and specific plans must be consistent with the General Plan. The General Plan must contain a discussion of the role of area plans and their relationship to the General Plan, which is satisfied by this Chapter.

(5) The text and the map(s) or other diagram(s) within the General Plan must be consistent with each other.

In the process of revising the General Plan, it must be assured that the revised Plan meets all the consistency requirements outlined above, which includes assuring that the West Orland Specific Plan and the Orland Area General Plan are consistent with the revised Glenn County General Plan.

There are other requirements in State law regarding consistency of the County General Plan with specific aspects of the County Hazardous Waste Management Plan, Comprehensive Airport Land Use Plans, and the Integrated Waste Management Plan. The General Plan will need to be consistent with the Air Quality Attainment Plan, which in all likelihood be more restrictive regarding land use planning than the existing General Plan. From the standpoint of efficiency and effectiveness, it is obviously desirable that the County's plans for solid and hazardous waste disposal, airport protection, and other topics be consistent with, and reflective of, its plans for the physical development of the county.

While not a requirement, it is also generally desirable to try to achieve consistency with City General Plans for the unincorporated area surrounding the city limits; in the case of Glenn County, with the General Plans of the cities of Willows and Orland. County actions in these areas affect the adjacent city, and the area may eventually be annexed to the city. If an area is proposed to be annexed to the city, it is required by State law that the area be within the City's Sphere of Influence and the action be consistent with either the City or County General Plan.

Issues which are usually of interest in such areas include the type of development permitted, potential land use conflicts, the road network and road improvement standards, and provision of sewer and water service. Special districts, including community services districts, may become involved in these issues as potential providers of urban services. Agreement between the County and the affected city regarding these issues can result in great efficiency in the provision of infrastructure and services, provide property owners with reasonable expectations regarding future development potential, and avoid pitting City and County decision-makers against one another. Glenn County and the City of Orland have already jointly adopted an Orland Area General Plan, which demonstrates the ability of the County and the City to work cooperatively to resolve community planning issues.

Should the County choose to plan for new urban development in unincorporated areas, additional special districts or County Service Areas may need to be created to deliver urban services.

GLENN COUNTY GENERAL PLAN

VOLUME IV - EIR

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CHAPTER ONE

SECTION 1 - INTRODUCTION

1.0 PROPOSED ACTIONS AND PROJECT OBJECTIVES

The proposed actions (i.e., the "project") for which this Environmental Impact Report (EIR) has been prepared include:

- Adoption of a revised *Glenn County General Plan*
- Adoption of an amended *Glenn County Zoning Ordinance* consistent with the new *Glenn County General Plan*
- Adoption of a *Regional Transportation Plan (RTP)* consistent with the new *Glenn County General Plan*

The *General Plan*, zoning amendment, and RTP processes will result in the need for capital improvements, public services and facilities by providing for additional growth and development in Glenn County. Two additional actions are intended to compliment the three project elements described above:

- *Capital Improvements Plan (CIP)*
- *Impact Mitigation Fees Programs* for law enforcement, fire protection service, storm drain/flood improvements, traffic/circulation, and mineral extraction

The CIP and *Impact Mitigation Fees Programs* are not a part of the General Plan revision project per se, although their development is closely related to the *General Plan* update. The CIP will identify those capital improvements that the County will have to provide in order to accommodate the growth and development projected in the *General Plan*. The *Impact Mitigation Fees Programs* will explicitly identify means of funding capital improvements and other infrastructure needs relating to those five areas listed above. The CIP and *Impact Mitigation Fees Programs* constitute mitigation and implementation measures for the *General Plan* in the sense that it would be difficult or impossible to put the *General Plan* into effect without the means to finance its various goals and policies.

The revised and updated *Glenn County General Plan* (referred to throughout this report as "the Plan") is being prepared by Glenn County with assistance from QUAD Consultants. The main Plan objectives are to meet requirements of State Planning Law and to guide the County's land use planning for 20 years after Plan adoption. A general plan is commonly referred to as a county's land use charter or constitution. All land use policies and decisions must conform to the general plan. This Plan covers all unincorporated lands within Glenn County, although the County has limited jurisdiction on public lands administered by State and federal agencies. The two incorporated cities in the county, Willows and Orland, have their own general plans. Glenn County will adopt, implement, and administer the updated Plan.

Zoning divides the county into districts where the *Zoning Ordinance* spells out how land can be used in each district. Zoning also governs buildings that can be built in each district and their uses. Zoning amendment or "rezoning" is a legislative act under California law. Zoning ordinance amendments require public notice and hearing.

The RTP defines transportation goals and objectives for the next planning period. Like general plans, RTPs must be updated periodically. It was decided by Glenn County that it would be beneficial to update the RTP at the same time as the general plan, so that the circulation element of the latter could better be coordinated with the former. The RTP is "multi-modal" in the sense that it considers all transportation needs, not just vehicular roadway transportation.

This EIR evaluates potential environmental effects that the Plan and the amended *Zoning Ordinance* may have. Several general plan alternatives were considered during Plan development. The relative environmental merits of each alternative are also analyzed in this EIR.

1.1 PROCEDURES

This EIR has been prepared under the California Environmental Quality Act (CEQA) and Guidelines for CEQA Implementation (California Administrative Code [CAC], Title 14, Chapter 3 — hereafter called the *CEQA Guidelines*). The Lead Agency responsible for the EIR is Glenn County. QUAD Consultants has prepared much of the document as a consultant to the County.

Section 15121 [a] of the *CEQA Guidelines* defines an EIR as an informational document that will:

...inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

CEQA applies to all discretionary projects. *CEQA Guidelines* Section 15357 defines a discretionary project as one that requires the public agency that must approve or disapprove the action to exercise judgement. This is distinct from projects where approval is given simply by determining if the action conforms to applicable statutes, ordinances, or regulations. As defined by § (i.e., Section) 15378 of the *CEQA Guidelines*, a "project" is an action that "...has a potential for resulting in a physical change in the environment, directly or ultimately..." Section 15378 [a][1] explicitly identifies general plan adoption or amendment and zoning ordinance amendments as "projects" subject to CEQA review.

CEQA recognizes that many processes for preparing general plans and EIRs are similar or identical and that the two documents will overlap in many ways. Similarly, according to the *State General Plan Guidelines*, a complete general plan revision will cover virtually every EIR requirement. *CEQA Guidelines* Section 15166 provides that, due to the similarities in the processes, a general plan EIR may be a separate document or a section of the general plan.

CEQA Guidelines Section 15093 requires the decision-makers to balance project benefits against any unavoidable environmental effects. If the benefits outweigh the unavoidable adverse

effects, the decision-makers may adopt a statement of overriding considerations finding that the environmental effects are considered acceptable.

CEQA provides a mechanism known as a "Program EIR" for projects that involve a complex series of related actions. According to § 15168 of the *CEQA Guidelines*:

A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

- 1) Geographically,
- 2) As logical parts in a chain of contemplated actions,
- 3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- 4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

A program EIR will "allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." An advantage of a program EIR is that it can significantly reduce the need for subsequent environmental documentation for specific actions proposed under the program, in this case, the Plan. Section 15168 [c] prescribes that:

Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

- 1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
- 2) If the agency finds that pursuant to Section 15162 (of the *CEQA Guidelines*) no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
- 3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
- 4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

- 5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

In a similar vein, the *State General Plan Guidelines* declare that, "A well-prepared general plan EIR covering broad geographic areas can increase the possibility that negative declarations can be issued at a later time for specific project proposals within the planning areas."

Section 15146 [b] of the *CEQA Guidelines* recognizes that a general plan EIR will not be as detailed as an EIR for a specific construction project. Thus, subsequent CEQA documentation may be necessary for certain actions under the adopted general plan. If subsequent or supplemental documentation is required for a proposed activity under the Plan, this EIR can be incorporated by reference to significantly reduce the required documentation. If needed, a subsequent EIR can focus very narrowly on those project-specific environmental effects that were not fully addressed in the program EIR.

The Draft Environmental Impact Report (DEIR) will be subject to a 45-day review period as required under CEQA. CEQA prescribes how the public must be notified regarding where and when the DEIR is available for review. During the review period, the public and all responsible, trustee, or other interested agencies may comment, orally or in writing, on DEIR contents. The Lead Agency will hold a public hearing(s) to receive comments during the review period. These procedures allow the public and appropriate agencies to participate in the environmental review process and provide input to the Lead Agency.

CEQA Guidelines Section 15132 requires that each comment made during the public review period must be responded to in writing. The Final EIR includes:

- the DEIR with any necessary revisions
- comments on the DEIR
- a list of individuals, organizations, or agencies that commented on the DEIR
- Lead Agency responses to the comments

Upon Final EIR completion, the County can certify that the Final EIR has been completed in compliance with CEQA and that information in it was reviewed and considered prior to deciding on Plan adoption. The County will then make its required findings under CEQA regarding the project's environmental effects.

Future developers, the County itself, and any parties involved in Plan implementation or actions under the Plan will be subject to measures described in the EIR to mitigate identified environmental impacts. The policies, implementation measures, and standards of the Plan were incorporated into the EIR to mitigate (i.e., reduce or eliminate) adverse environmental effects. Because these policies, implementation measures, and standards are sufficiently comprehensive

to fully mitigate potential adverse environmental effects, no actual EIR mitigation measures were provided. In the absence of formal mitigation measures, Plan policies and standards assume the function of EIR mitigation measures. Implementation measures, which are designed to assure implementation of the policies and standards, assume the function of a mitigation monitoring/reporting plan. They fulfill this function by identifying the action to be taken, when it is to occur, the agency or individual responsible for the action, and the agency or agencies that the action must be coordinated with or reported to.

1.2 METHODOLOGY/SCOPE OF EIR

The updated *Glenn County General Plan* applies to all Glenn County lands except those administered by the two incorporated cities within the county (Willows and Orland). As discussed above, the EIR evaluates the Plan's potential environmental effects. Included in the analysis are direct, cumulative, and growth-inducing effects. As explained above, Plan policies, standards, and implementation measures are recognized by this EIR as the functional equivalents of mitigation measures and a mitigation monitoring/reporting plan.

Pursuant to *CEQA Guidelines* § 15063, an Initial Study was completed for the project in June 1991 (Appendix E of the *Environmental Setting Technical Paper, Glenn County General Plan 1991*). The Initial Study served as a preliminary environmental assessment and identified potential environmental concerns. The Initial Study was used as a basis for the Notice of Preparation (NOP), which was circulated to interested agencies in June 1991. The NOP gives responsible and trustee agencies (i.e., those agencies having jurisdiction over resources that may be affected by the project) an opportunity to comment on the project and the EIR scope. Thus, the NOP contributes to the ultimate EIR scope in terms of the range of environmental issues that are analyzed. The list of agencies contacted and their responses to the NOP appear in Appendix E to the *Environmental Setting Technical Paper*.

Also contributing to EIR scope development was a public scoping meeting held by the Lead Agency on June 26, 1991. This meeting was held to enable interested agencies and citizens to provide input regarding the project and EIR contents.

Based on the Initial Study, NOP, and scoping meetings, the EIR will focus on the following environmental topics:

- **EARTH: GEOLOGY AND SOILS** — This section addresses potential soil displacement or loss through grading and construction activities, covering by pavements and structures, and erosion associated with development. Seismic and other geologic hazards, such as flooding, slope instability, expansive soils, and low foundation-bearing capacity also will be discussed.
- **HYDROLOGY AND DRAINAGE** — This section addresses surface and ground water quantity and quality. Surface runoff effects will be analyzed, including excess runoff generated by creating impervious ground surfaces.
- **BIOLOGICAL RESOURCES** — The potential for the project or alternatives to affect fishery resources, sensitive or unique wildlife habitats, wetlands, riparian zones, and other plant and animal resources will be assessed.

- **MINERAL AND ENERGY RESOURCES** — Effects of the project on mineral and energy resources will be evaluated from two opposite perspectives: the potential for the project to result in irreversible commitment of such resources to use now, rather than preserving them for future generations or, conversely, commitment of lands that contain such resources to uses that would permanently preclude an opportunity to extract the resources.
- **CULTURAL RESOURCES** — Project-related effects on historical and archaeological resources will be evaluated with emphasis on protection and preservation.
- **PUBLIC HEALTH AND SAFETY** — This section will include such issues as risk of upset on I-5 and the railroad, on which hazardous wastes are transported, and hazardous materials identification, safe transportation, handling, and storage within the County. Wildland fire hazards will be discussed. Other public health and safety issues, such as water and air quality, noise, and traffic safety, are addressed under other headings in the EIR.
- **AIR QUALITY** — The potential for Plan implementation to create significant air emissions that will further contribute to Glenn County air basin non-attainment for ozone and PM₁₀ will be evaluated.
- **NOISE** — Significant noise sources and sensitive noise receptors will be identified for the required Plan Noise Element. Plan goals and policies should ensure that significant noise sources are not located adjacent to sensitive uses, such as hospitals, schools, and residential neighborhoods.
- **LAND USE COMPATIBILITY/POPULATION** — The project will be analyzed for its internal land use compatibility and its relationship to other planning mechanisms, such as the two incorporated cities' general plans, Regional Transportation Plan, air quality attainment plans, etc. Agricultural lands retention and maintaining the existing social and economic character of the county also will be discussed. Population issues, such as growth and density, will be addressed in this section.
- **TRANSPORTATION/CIRCULATION** — A Regional Transportation Plan (RTP) is being prepared in conjunction with Plan development. The RTP will form a basis for analyzing the Plan's direct and cumulative effects on the existing transportation system.
- **HOUSING** — The effects on housing availability and the mixture and quality of available housing will be assessed. A general plan directly affects growth, which in turn, will affect housing needs and opportunities in the county.
- **PUBLIC SERVICES AND UTILITIES** — The Plan must provide for adequate public services and facilities (i.e., schools, fire and police protection, water supply, wastewater treatment, solid waste disposal, roadway maintenance) to support planned growth and

development. Utilities capacities to accommodate projected growth under the Plan also must be evaluated.

- **AESTHETICS/SCENIC RESOURCES** — Potential project effects on scenic and aesthetic resources will be discussed.

The *Glenn County General Plan* consists of five documents: the *Policy Plan* (Volume I); the *Natural Resources, Public Safety and Community Development Issue Papers* (Volume II); the *Environmental Setting Technical Paper* (Volume III); the *Environmental Impact Report* (Volume IV); and the *Energy Element*. Volume III, the *Environmental Setting Technical Paper*, describes and analyzes the existing conditions in Glenn County and the region. It provides supporting documentation for the *Policy Plan* and also serves as the required "environmental setting" section of the *Environmental Impact Report*. The *Issue Papers* (Volume II) provide further background information, analysis and justification for policy statements included in the *Policy Plan*. Although the EIR per se is Volume IV of the *General Plan*, the five volumes combined actually form the whole of the EIR. Each of the other four volumes contains information necessary to satisfy CEQA EIR requirements.

Volume I, the *Policy Plan*, sets forth the goals, policies, implementation strategies, and standards for the *General Plan*. It also includes the *Land Use Diagram* and *Circulation Diagram*, designations and standards for population density, land use and building intensity. Together, these policy statements, designations, diagrams and standards constitute the policy of Glenn County for the comprehensive, long-range physical development of the county. Section 2 of the *Policy Plan* describes the preferred alternative that forms the basis for the *Glenn County General Plan*.

The *Energy Element* has been prepared separately to specifically address issues of energy conservation and resources within the county. Although a separate document, it is intended that it be adopted concurrently with Volumes I-IV and have the same force and effect as the balance of the *General Plan*.

Two other documents will be prepared to accompany the *General Plan* and are printed under separate cover: a *Capital Improvements Plan* and *Impact Mitigation Fee Program*. The *Capital Improvements Plan* determines capital facilities and improvements necessary to support the growth and development envisioned in the *General Plan* and establishes a program for constructing those improvements. The impact mitigation fees are designed to offset the cost of providing law enforcement, fire protection, storm drain/flood control improvements and traffic/circulation improvements to serve new development consistent with the Plan.

The following format will be used in this EIR to describe existing environmental conditions, potential project-related impacts, and mitigation measures for each of the topical areas stated above:

Setting:

Existing environmental and regulatory conditions specific to each topical area listed above will be described. This information is in the *Environmental Setting Technical Paper*, which is incorporated by reference into this volume of the document.

Impacts:

Impact Evaluation Criteria: The standard by which impacts are measured or the threshold of significance will be presented. The purpose is to establish the level at which an environmental impact will be considered significant.

Impact #: Each identified environmental impact will be numbered for reference.

Conclusion: This will be a statement of whether or not an identified impact is significant. If found significant, a statement will be made regarding whether the impact can be mitigated (i.e., reduced or lessened) to a level of insignificance, or alternatively, whether the impact is unmitigable, unavoidable, and/or irreversible.

Mitigation Measures:

Mitigation Measure #: Each mitigation measure will be listed by a reference number corresponding to the impact it applies to.

Effectiveness of Measure: This section states whether the recommended mitigation measure will reduce the impact to an insignificant level based on Impact Evaluation Criteria.

Implementation/Monitoring: In compliance with Public Resources Code, Section 21081.6, mitigation monitoring/reporting measures are provided for each mitigation measure. The monitoring/reporting measures state when the mitigation measure is to be implemented, how or by whom it is to be implemented, and agencies or individuals who must be consulted or notified regarding implementation of the mitigation measure.

The above format is intended to conform to standards for adequacy of an EIR as described in § 15151 of the *CEQA Guidelines*, which states:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonable feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and good faith effort at full disclosure.

1.3 ORGANIZATION OF THE EIR

Chapter One describes the project and the reason for preparing the EIR. It also explains CEQA's purposes and requirements and briefly summarizes how the CEQA process proceeds.

Chapter Two describes the project in greater detail, including project objectives, general Planning Area environmental setting, project alternatives, and related County actions needed to adopt the Plan.

Chapter Three identifies and evaluates *impacts*, including *cumulative impacts*, and proposes *mitigation measures — or Plan goals, policies, and implementation measures in lieu of mitigation measures* — to reduce impacts to insignificant levels. This section follows the format described above. Also considered in Chapter Three are several CEQA-mandated topics, including growth-inducing impacts, significant irreversible environmental changes that would occur under the Plan, short-term land uses that may sacrifice long-term environmental productivity (such as converting agricultural land to frivolous non-agricultural uses), and irreversible commitments of non-renewable resources.

Chapter Four evaluates Plan alternatives based on Chapter Three findings. CEQA requires an EIR to assess a "reasonable" range of project alternatives that ostensibly might achieve project objectives while having less environmental impact than the project as proposed. Alternatives 1, 2, and 3 will be analyzed for their environmental effects. These alternatives are essentially different growth scenarios, each linked to correlating economic development, natural resources, and public safety issues. Per *CEQA Guidelines* § 15126 [d][2], Alternative 4, the "no project" alternative, must also be presented to compare the project's environmental consequences to those associated with maintaining status quo. The County has tentatively selected a "preferred alternative" around which to develop Plan goals and policies. This EIR will treat the "preferred alternative" as "the project" for environmental assessment purposes in Chapter Three. Hereafter, the terms "preferred alternative" and "the project" are used interchangeably. CEQA does not require all alternatives to be analyzed in as great detail as the project per se. Thus, the project will be comprehensively analyzed in Chapter Three, while Chapter Four will briefly summarize the other three alternatives and the "no project" alternative and compare all alternatives to the project. The County will ultimately adopt the alternative or combination of alternatives that forms the Plan goals and policies basis, considering environmental and other factors. Plans with different growth and economic development assumptions will obviously be quite different.

Chapter Five includes references to published literature or technical reports cited in the text. Also listed are individuals and agencies contacted for information during EIR preparation. Several appendices follow the text.

The several volumes that comprise the *General Plan* and EIR will be available for public review at Glenn County Planning Department, 125 South Murdock Street, Willows, California 95988. Copies of the EIR will also be available at the Orland, Willows, and Hamilton City libraries at the following address:

- 201 N. Lassen, Willows
- 333 Mill, Orland
- 330 Broadway, Hamilton City

CHAPTER TWO

SECTION 2 - PROJECT DESCRIPTION

2.0 PROJECT LOCATION AND PLANNING AREA

Glenn County, California, occupies the northern Sacramento Valley and eastern foothills and mountains of the North Coast Ranges, approximately 80 miles north of the City of Sacramento (see Environmental Setting Technical Paper, Figure 1-1). The county covers about 1,317 square miles. Within Glenn County are the cities of Willows and Orland and the unincorporated communities of Hamilton City, Ord Bend, Artois, Elk Creek, Butte City, West Orland, Glenn, and numerous other small communities.

Topography is steeper in western Glenn County and relatively flatter in the eastern one-third. Two major geologic provinces in the County influence topography. The eastern third of the county occupies the Sacramento Valley, while the North Coast Ranges dominate the western two-thirds.

The Sacramento Valley consists of nearly level terraces, smooth alluvial fans, narrow flood plains and water-filled basins. Elevations range from about 100 feet above mean sea level (MSL) at the Sacramento River to 300 feet above MSL at the western Valley edge west of Interstate 5 (I-5) (Fugro-McClelland [West] Inc. 1991:22). Glenn County extends east of the Sacramento River near Butte City in the southeast. The level flood plains and basins show little slope.

West of the Sacramento Valley province are the North Coast Ranges, which can be further subdivided into rolling foothill terrain from the Valley edge to approximately 2,000 feet, and the mountains that rise to almost 7,500 feet above MSL at Black Butte Mountain. The foothills are rolling to steep hills, with narrow valleys and distinct areas of south to north drainage. Much of the steeper mountainous region west of the foothills rises above 6,000 feet and includes a portion of the Coast Ranges crest (Fugro-McClelland [West] Inc. 1991:22).

The Valley and Coast Ranges have distinctly different geologic histories and local climatic conditions. Three main rock units increase in age from east to west (see Environmental Setting Technical Paper, Figures 2-1, 2-2). In the eastern third of the County are primarily unconsolidated Pleistocene and Recent (i.e., Quaternary) sediments (Qal), including alluvial fan and stream channel deposits of the Sacramento River and inland basin deposits. Exposed at the lower foothill elevations are Tertiary sediments, primarily Pliocene age, with some continental volcanics. In the upper foothills are Cretaceous and Jurassic marine and non-marine sedimentary rocks. The western mountains within the County are mainly deformed Jurassic marine sediments and volcanics (Fugro-McClelland [West] Inc. 1991:22).

Under the California Constitution, incorporated counties and cities have the authority (known as "police power") to regulate land use within their jurisdictions. The "Planning Area" or "Plan Area" referred to in the *Glenn County General Plan* and this EIR includes those lands within the County that are directly under Glenn County jurisdiction. The Planning Area includes all county lands except those lands within the incorporated city limits of Willows and Orland (see Environmental Setting Technical Paper, Figure 1-1).

Although large portions of the County are administered by federal agencies, such as the Department of Agriculture, U.S. Forest Service, and these lands are not subject to the *Glenn County General Plan*, both the *California General Plan Guidelines* and federal law and policy address the need for local governments and federal land management agencies to coordinate their land use activities. The Federal Land Policy and Management Act of 1976 states that, "Land use plans of the Secretary [of the Interior] under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act" (43 U.S.C. Section 1712 [1976] and 43 U.S.C.S 1712). Under California law, local governments are required to refer their general plans or substantial general plan amendments to "Any Federal agency if its operations or lands within its jurisdiction may be significantly affected by the proposed action, as determined by the planning agency" (Government Code Section 65352).

2.1 PROJECT DESCRIPTION

The three primary project elements include *General Plan* adoption, *Zoning Ordinance* amendments, and the RTP. The periodic comprehensive revision of a county general plan is mandated by State law. Also under law, an amended zoning ordinance must be enacted to be fully consistent with the new general plan. A periodically updated Regional Transportation Plan is also legally mandated. Because the RTP is a crucial planning tool, and since transportation is an important issue in development, it is most practical to update the RTP simultaneous with a comprehensive general plan revision.

Several ancillary documents have been prepared or are in progress that contributed to Plan development. These include the *Public Safety Issue Paper*, *Natural Resources Issue Paper*, and *Community Development Issue Paper*. As explained in Chapter One, a *Capital Improvements Plan* and *Impact Mitigation Fees Programs* are being developed to help identify necessary capital improvements and mitigate fiscal effects associated with providing for law enforcement, fire protection, storm drain/flood improvements, the traffic/circulation system, and mineral extraction under the Plan.

The Plan includes seven mandatory elements: Land Use, Circulation (not to be confused with the RTP, from which it borrows liberally), Housing, Conservation, Open Space, Noise, and Safety. Additionally, general plans may include optional elements at the discretion of the County. State planning law permits optional elements that cover any topic that relates to the County's physical development. This Plan includes an optional Economic Development element.

Population projections for the planning horizon ending in the year 2012 form an important basis for evaluating environmental impacts. Page 4-1 of the *Policy Plan* states that the estimated population for the unincorporated area of the county in 2012 is 26,259. This estimate derives from data presented in the Land Use diagram in Section 3 of the *Policy Plan* and the tables in Section 4 of the *Policy Plan*, which show total acreage under each *General Plan* land use category, including residential, commercial, and industrial categories; acreage available for development under each land use category; potential new residential units and new commercial and industrial space; existing residential units and commercial and industrial square footage; total units or square footage at *General Plan* buildout; and total population from the 1990 Census.

The estimated 2012 population in the unincorporated areas of the county at *General Plan* buildout under the *General Plan* "preferred alternative" is 26,085, which is nearly identical to the above estimate based on the tables and their underlying assumptions in Section 4 of the *Policy Plan*. The "preferred alternative" is briefly described below and presented in greater detail in Section 2 of the *Policy Plan*. Under the preferred alternative, total county population at buildout in 2012, including the unincorporated areas and the incorporated cities, is estimated at about 47,000 people. The 1990 Census placed total county population at 26,259. As noted in Section 2 of the *Policy Plan*, the preferred alternative assumes an annual 3 percent growth rate.

2.2 RELATED ACTIONS

The draft *Glenn County General Plan* will be refined through the public review and public hearing process. The final *Glenn County General Plan* will be approved by the Planning Commission adopted by the County Board of Supervisors. Following Plan adoption, the County will undertake amendments to its Zoning Ordinance to achieve consistency with the new *General Plan*. This EIR will also be used by the County as the environmental documentation for both the Plan and the proposed Zoning Ordinance amendments. The RTP must be approved and adopted by the Glenn County Transportation Commission.

2.3 GENERAL PLAN ALTERNATIVES

As stated in Chapter One, this EIR will analyze the relative environmental advantages and disadvantages of four alternative *General Plan* scenarios in comparison to the "preferred alternative." The preferred alternative, described in Chapter Two of the *Policy Plan* (i.e., Volume I of this updated *General Plan*), is the "project" under review in this EIR. A "no project" alternative will be analyzed along with the three substantive alternatives as a CEQA requirement. Analysis of the "no project" alternative compares the relative environmental merits of maintaining *status quo* (i.e., continuing to operate under the existing *General Plan*) against the preferred alternative and other alternatives. The alternatives were derived as follows.

Population growth is one of the most important issues that affect land use planning. The Plan can neither predict nor control the county's growth rate. However, the Plan can strongly influence growth rate through its various goals, policies, and implementation mechanisms, including the *Zoning Ordinance*. Thus, in determining the planning course that the county wishes to set over the next 20 years, alternatives that tie various planning factors to different growth scenarios are most useful. Within the *Community Development Issue Paper* are three community development alternative scenarios, 1CD, 2CD, and 3CD. These are growth scenarios; each assumes a different average annual population growth rate (i.e., low, medium, and high) over the Plan's life (i.e., 1992-2012). Tied to each CD or growth scenario is an economic development (ED), public safety (PS), and natural resources (NR) scenario. The ED scenarios are presented in the *Community Development Issue Paper*, while the PS and NR scenarios are explained in the Public Safety and Natural Resources issue papers, respectively.

The 1CD scenario assumes an average annual 1.5 percent growth rate. The 2CD scenario assumes 3 percent, and the 3CD scenario assumes 5 percent. Under the 1ED scenario, the county would de-emphasize economic development, which along with other public policies, would discourage growth. The 2ED scenario is a *laissez faire* position with respect to economic growth and development in which the County would neither actively promote nor discourage economic development. Under the 3ED scenario, the County would actively promote economic

development. The 1PS scenario would place a high emphasis on public safety issues, which might tend to inhibit growth and development by making development standards for public safety so high as to make it difficult for developers to meet these standards. The 2PS scenario would seek a balance between public safety and other planning concerns (i.e., the need for housing, jobs, and economic activity). The 3PS scenario would de-emphasize public safety concerns in order to stimulate greater economic activity. The 1NR scenario has a strong resource preservation tendency. The 2NR scenario would seek a balance between preservation and other beneficial land uses. The 3NR scenario tends toward fewer constraints on development *vis-a-vis* natural resource preservation.

The "preferred alternative," hereafter referred to interchangeably as either the "preferred alternative" or the "project," incorporates the 2CD/3ED/2PS/2NR scenarios. It assumes 3 percent annual growth, would actively promote economic development, would balance public safety with other planning concerns, and balance natural resource preservation with other beneficial land uses.

Alternative 1 incorporates the 1CD/1ED/1PS/1NR scenarios. It thus envisions relatively slow growth, de-emphasizes economic development, places high emphasis on public safety, and is highly protective of natural resources.

Alternative 2 incorporates the 2CD/2ED/2PS/2NR scenarios. This alternative is very similar to the preferred alternative, except that it plots a less aggressive course with regard to economic development.

Alternative 3 incorporates the 3CD/3ED/3PS/3NR scenarios. It assumes relatively rapid growth and aggressive economic development, with relatively fewer constraints on growth and economic development than other alternatives *vis-a-vis* public safety and natural resources.

Alternative 4 is the "no project" alternative that must be considered under CEQA provisions. This alternative assumes *status quo*; Glenn County would continue to operate under existing *General Plan* goals and policies

2.4 PROJECT OBJECTIVES

The project includes General Plan adoption, zoning ordinance amendments, and the RTP.

A primary project objective is for Glenn County to meet its legal requirements under California planning law. California Government Code Section 65300 requires each city and county to prepare and adopt a comprehensive, long-term general plan for the physical development of lands within its jurisdiction. A general plan must be reviewed and periodically revised to reflect the changing needs and values of the community. Each jurisdiction may select a long-term horizon for its general plan revisions, usually 15 - 25 years. Glenn County has selected a 20 year horizon. The new *Glenn County General Plan* will meet legal requirements for a revised general plan for the period 1992-2012. Similarly, the County is legally obligated to adopt and periodically update a Regional Transportation Plan.

Beyond meeting its legal requirements, the County's objectives are to:

- develop a forward-looking document that establishes goals, policies, and objectives for the county's growth and development
- develop a current data base and current base mapping
- identify issues that affect the way growth and development will occur over the next 20 years
- help the county establish a vision for the next 20 years
- develop new policies that reflect the county's goals and objectives
- develop a General Plan that is internally consistent, meets the requirements of State Planning Law, and provides the basis for implementation of the Plan's policies

CHAPTER THREE

SECTION 3 - SETTING, IMPACTS, AND MITIGATION MEASURES

3.0 INTRODUCTION

As discussed in Chapter One, this EIR has been prepared to analyze potential environmental effects of adopting and implementing the new *Glenn County General Plan* to guide land use, development, and transportation planning in the county for the next 20 years. The presentation of impacts and mitigation measures for each environmental topic follows the format shown in Chapter One. The setting discussions for each topic appear in Volume III, *Environmental Setting Technical Paper*. The reader will be referred to the appropriate section of that document for setting under each topical heading below. Additional setting information appears in the three Issues Papers (i.e., Natural Resources, Community Development, Public Safety), and these also will be referenced as needed.

As stated in Chapter Two, the "preferred alternative" is considered to be "the project" for impact analysis purposes in this chapter. Thus, the reader should assume that the environmental analysis of the project that follows in this chapter refers specifically to the preferred alternative. A comparison of the potential environmental effects of this and the other three alternatives and the "no project" alternative appears in Chapter Four.

The project incorporates the 2CD, 3ED, 2PS, and 2NR scenarios. The project assumes a 3 percent average annual population growth rate. The County would actively promote economic growth and development by seeking new businesses and job opportunities in the County. A balance would be sought between providing for public safety and the need for jobs, housing, and economic growth. Highly restrictive public safety policies might inhibit economic growth and housing development, while overly permissive public safety policies may fall short of providing adequate protection of public and environmental health. This alternative also seeks a fair balance between preservation of natural resources and open space and other potentially beneficial land uses.

As summarized above, the project is essentially a balanced course of public policy planning that seeks middle ground on most issues. It is neither pro-growth nor anti-growth, and it does not take either extreme on the issues of public health and safety or natural resource preservation. The only exception is that, should the Plan be developed to conform to this alternative, the County would aggressively seek new economic growth opportunities. New businesses and industries that might be attracted to Glenn County as a result of aggressive economic development policies would nonetheless operate under policies that seek to balance economic growth with public safety considerations and natural resource preservation.

A purpose of this EIR is to identify significant environmental effects associated with the Plan and recommend mitigation measures that will offset such effects, if possible. Plan policies, standards, and implementation measures have been explicitly designed to mitigate or avoid impacts to the environment. Rather than mitigation measures, Plan policies, standards, and implementation measures are incorporated into this EIR under each potential impact. Plan

policies and standards are thus the functional equivalent of EIR mitigation measures, while Plan implementation measures are the functional equivalent of an EIR mitigation monitoring/reporting plan.

3.1 EARTH — SOILS, GEOLOGY, AND GEOLOGIC HAZARDS

3.1.1 SETTING

Please refer to Section 2.1 of Volume III, *Environmental Setting Technical Paper*, for a discussion of Planning Area geologic setting and soils. A summary discussion of geologic hazards appears as Section 3.3 of the *Environmental Setting Technical Paper* within the Public Safety portion of the setting paper. A more expanded discussion of geologic hazards appears in the *Public Safety Issue Paper*, Section 4.0.

3.1.2 IMPACTS

Impact Evaluation Criteria:

The California Government Code requires that a general plan address the protection of the community from unreasonable risks associated with geologic hazards, such as seismic ground shaking, ground rupture, ground failure, slope instability, subsidence, erosion, soil expansion, and flooding. Seismic shaking also occurs in the county, but Glenn County is not in a severe seismic zone. Although some damage is likely to occur from seismic activity, Uniform Building Code standards should be adequate to prevent structural collapse or other severe effects. The issue of flooding is addressed in the following section (Section 3.2 — Hydrology, Drainage, and Water Quality).

The analysis of geologic conditions in this EIR is designed to comply with provisions of the California Division of Mines and Geology (CDMG) Note 46: *Guidelines for Geologic/Seismic Considerations in Environmental Impact Reports*. The Guidelines is a checklist of all potential geologic hazards that the CDMG recommends should be addressed in an EIR. Also included in the Guidelines is a list of published references on geologic hazards and public agencies that house geologic data. Many of the impacts identified below were suggested by the Guidelines. Some of the geologic problems listed in the Guidelines do not apply to Glenn County, such as tsunamis (i.e., tidal waves).

The Uniform Building Code (UBC) establishes construction standards in the face of geologic hazards. The significance of geologic impacts can be measured in comparison to UBC thresholds identified for Glenn County. Significant effects could potentially occur if the Plan is not fully consistent with UBC standards for existing geologic hazard thresholds. UBC thresholds indicate the significance of geologic hazards by identifying the likelihood that such events will occur.

The highest historic earthquake intensity rating in Glenn County is VII on the Mercalli intensity scale. Accordingly, the county has been designated as being within a Seismic Risk Zone 3. The UBC therefore establishes building standards to assure that structures will survive earthquakes with a maximum Mercalli scale intensity of VII with little or no damage. There are no Alquist-Priolo Special Studies Zones in Glenn County, indicating that there are no active faults that have potential for ground surface rupture.

Impact #3.1-1: Development could result in erosion or sedimentation from grading and excavation, alteration of surface hydrology, unprotected drainage ways due to vegetation removal, and the increase in impervious ground surfaces.

Conclusion: Erosion and sedimentation as a result of new development could be significant, directly and cumulatively, if development and construction were unregulated. However, policies, standards, and implementation measures in the *Policy Plan* are intended to reduce these potential impacts to a less than significant level by providing, among other things, for project-specific investigations of these hazards prior to development. Because all construction and development in the County must comply with these policies, as well as with the Uniform Building Code and other County ordinances and regulations, this impact is found to be less than significant and no mitigation measures are required. Proposed policies, standards, and implementation measures to be incorporated into the *General Plan* to prevent or reduce erosion and sedimentation effects, along with resulting adverse effects on water quality, include:

Policies: It shall be the policy of Glenn County to:

- PSP-27** Promote sound agricultural and development practices that conserve soil resources and avoid or mitigate impacts associated with erosion.
- PSP-28** Protect valley streamcourses from the effects of erosion.
- PSP-29** Require erosion control plans for development proposed on sloping land.

Standards for Erosion and Sedimentation Control and Watershed Protection

- All new development proposals within foothill or mountain areas or adjacent to streamcourses should include a county-approved grading, excavation, and erosion control plan to minimize the effects of erosion, including the loss of soils and reduction in water quality through increased sedimentation.
- Design of erosion control plans should comply with standard erosion control measures recommended by the U.S. Department of Agriculture, Soil Conservation Service. Typical erosion control measures include:
 - Development on or disturbance of steep slopes should be avoided whenever feasible.
 - Fill slopes should be constructed at a 2:1 ratio gradient or flatter.
 - V-ditches should be constructed above all cut or fill slopes to divert water from newly exposed slope faces.
- All newly exposed or created slopes should be rapidly revegetated before the rainy season, preferably prior to October 15. Hydroseeding with annual grasses is generally most effective. Permanent plantings of native drought-tolerant shrubs

also are desirable after slopes are stabilized. Irrigation should be provided until slopes stabilize (usually two to four years).

- Soil disturbing activities should be conducted between May 1 and October 15, with all exposed areas mulched and seeded prior to October 15.
- Straw bale dikes or filter fabric barriers should be located downslope of disturbed areas to act as sediment traps. These should remain in place until newly exposed surfaces stabilize (i.e., two to four years).
- Temporary or permanent sedimentation basins should be constructed as necessary according to recommendations of the project engineer.
- Removed topsoil should be stockpiled and reused for landscaped areas. Stockpiles should be stabilized during rainy seasons (October 15 to May 1).
- Drainage channels should be stabilized, for example, by rock-lining, to prevent erosion.
- Water trucks, sprinkler systems, chemical soil binders, and rapid revegetation can prevent wind erosion of soils during the construction season.
- Erosion control measures should be implemented as a condition of project approval and monitored periodically to ensure effectiveness. An inspection by the County should be conducted following the first major storm after ground disturbance to evaluate effectiveness. The County should require a bond to be posted by the developer to ensure proper implementation and maintenance of temporary erosion and sediment control measures.
- An "edge" effect occurs where different habitats come into contact, such as where wetlands contact grasslands or oak woodlands. Edge zones are particularly productive and vital for wildlife. Building and development setbacks, open space corridors, or green belts should be provided to protect riparian corridors, waterways, and other wetlands. These setbacks should minimally include all riparian forest and other wetland habitat plus a minimum 50-foot wide corridor adjacent to them to preserve edge habitat and buffer riparian habitat from direct impacts.

Implementation Strategies, Programs and Priorities:

PSI-27 Assist the Resource Conservation District in its efforts to provide educational programs that increase public awareness of erosion prevention techniques.

Implements policy: PSP-27
Priority: 1
Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Public Works Department,
Glenn County Agricultural Commissioner,
Glenn County Board of Supervisors

PSI-28 Incorporate into the building permit/grading permit process a procedure for requiring an erosion control plan in areas subject to water runoff-related erosion.

Implements policies: PSP-28, PSP-29
Priority: 2
Lead Agency: Glenn County Building Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, Glenn County Board of Supervisors

Impact #3.1-2: Under the Plan, people and property could potentially be exposed to seismic and other geologic hazards, subsidence, slope or foundation instability, and volcanic hazards. Seismic hazards can include fault movement, liquefaction, differential compaction, ground rupture, ground shaking, tsunamis, seiches, and flooding as a result of seismically-induced dam failure.

Conclusion: All new structures must be constructed to comply with UBC standards designed to prevent major structural damage in this seismic risk zone (i.e., Zone 3). Older structures erected prior to establishment of these standards may be more likely to sustain damage in a seismic event. While seismic hazards associated with ground shaking are effectively addressed through UBC standards in terms of structural safety, other secondary effects can occur as a result of seismic shaking, such as fires, disrupted water supplies and utilities, and ground failure. Implementation of the *Glenn County General Plan* would not increase exposure of people and property to seismic hazards, and the Plan incorporates policies and implementation measures that will reduce impacts of seismic and other geologic hazards. Those policies and implementation measures that will partially mitigate geologic hazards effects include:

Policies: It shall be the policy of Glenn County to:

PSP-30 Require a site-specific geological investigation prior to development within areas of high landslide risk.

PSP-31 Monitor gas and water well production in order to evaluate subsidence activity.

PSP-32 Enforce the requirements of the Uniform Building Code for all development in order to protect people, property and improvements from seismic and other geologic hazards.

Implementation Strategies, Programs and Priorities:

PSI-29 Incorporate into the building permit process a procedure for requiring geologic reports in areas subject to landslide hazards as identified in the *General Plan*.

Implements policy: PSP-30
Priority: 2
Lead Agency: Glenn County Building Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

PSI-30 Require applications for permits for gas and water wells to be drilled in the county to contain sufficient base data that subsequent periodic measurements for subsidence can be performed and compared against the original data.

Implements policy: PSP-31
Priority: 2
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Planning Department

PSI-31 Assign responsibility for monitoring subsidence activity to an interested department/agency.

Implements policy: PSP-31
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, Glenn County Health Department.

PSI-32 Continue to require building permits and subsequent inspections for all construction activities within the county.

Implements policy: PSP-32
Priority: 1
Lead Agency: Glenn County Building Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Department, Glenn County Public Works Department

3.1.3 MITIGATION MEASURES

All potentially significant impacts identified under Impact #3.1-1 will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required. Although Glenn County is not a particularly high risk area for seismic and other geologic hazards, (Impact #3.1-3) Plan provisions will not entirely eliminate these risks, nor reduce them to a less than significant level. No additional mitigation measures are available.

3.2 HYDROLOGY, DRAINAGE, AND WATER QUALITY

3.2.1 SETTING

Please refer to Section 2.3, Water Resources, and Section 3.5, Hydrology, in Volume III, *Environmental Setting Technical Paper*, for discussions of water resources, water quality, and flooding/drainage issues. In addition, Section 3 of the *Natural Resources Issue Paper* includes a comprehensive discussion of water resources, and Sections 6 and 7 of the *Public Safety Issue Paper* cover flood hazards and water quality, respectively.

3.2.2 IMPACTS

Impact Evaluation Criteria:

Flooding: Flood control dams prevent severe flooding along the Sacramento River and Stony Creek. Annual floods affect floodplains within the levee system bordering the river. Hamilton Creek is protected only by a poorly maintained private levee. Flood hazard areas in Glenn County have been mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps. Figure 3-2 of the *Environmental Setting Technical Paper* shows generalized flood hazard areas. Development within any FEMA-defined flood hazard zone is considered a potentially significant impact. All development within such zones must be avoided or mitigated through construction of flood control facilities or other effective measures. Development can increase the risk of flooding by creating impervious surfaces from the construction of structures and pavements. Excess runoff occurs where water cannot seep into the ground due to such impervious surfaces. All excess runoff not controlled by storm water collection and storage systems represents a potentially significant effect.

Water Quality: Water quality effects can be associated with both surface and ground waters. Any disturbance of surface water courses and adjacent areas should be considered a significant impact. Watersheds (e.g., riparian vegetation zones) must be protected in order to protect water quality. If surface water courses or impoundments are contaminated by storm runoff, this would also be a significant effect. The National Pollutant Discharge Elimination System (NPDES), a federal monitoring and permitting system administered in the State of California by the State Regional Water Quality Control Boards (RWQCB), provides standards for stormwater discharge quality. Urban storm water runoff is likely to contain petroleum compounds, glycol, and dissolved metals from vehicular fluid leaks. Ground water impacts can be measured by the potential to encounter unsafe domestic water supplies in ground water aquifers or for the Plan itself to adversely affect ground water quality through its goals and policies. State and federal drinking water standards for public and private water systems can be used as a measure of impact significance.

Impact #3.2-1: Potential exists for people and property to be exposed to flooding from natural watercourses or as a result excess storm runoff due to increased impervious surfaces.

Conclusion: Unregulated development and construction activities, such as grading, vegetation clearing, inattention to runoff from construction sites during peak winter rainfall, large-scale paving, and lack of storm water collection systems, would potentially expose people and property to significant flood-related effects. However, the proposed *Glenn County General Plan* and provisions of the Zoning and Subdivision ordinances

incorporate policies and implementation measures designed to reduce flooding and drainage impacts. The County also will soon adopt a *Capital Improvements Plan* to identify funding needs and an *Impact Mitigation Fees Program* to identify and provide funding sources for storm drainage and flood protection improvements. Together, the Plan provisions, the *Capital Improvements Plan*, and the *Impact Mitigation Fees Program* for drainage and flood protection facilities will reduce the effects to the greatest feasible extent. However, the impact will not be reduced to a less than significant level, since the possibility of floods that may result in property damage and other effects cannot be totally eliminated. Following are the policies and implementation measures of the *Policy Plan* that are intended to mitigate flooding effects:

Policies: It shall be the policy of Glenn County to:

- PSP-37** Recognize the special status of lands located within the designated floodways adopted by the State Reclamation Board.
- PSP-38** Support efforts to revise the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the areas around Hamilton City, Willows and Orland in order to improve their accuracy.
- PSP-39** Endeavor to avoid areas subject to flooding when considering approval of new development.
- PSP-40** Require the installation of storm drain and other flood protection/prevention improvements as a condition of all new development approvals.
- PSP-41** Encourage the formation of a countywide service area or individual storm drain maintenance districts to finance and construct needed flood control improvements.

Implementation Strategies, Programs and Priorities:

- PSI-37** Apply floodway/floodplain zoning to lands within the designated floodways.

Implements policies: PSP-37, PSP-39, PSP-44
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, State Reclamation Board
- PSI-38** Continue to press the U.S. Department of Housing and Urban Development to make revisions to the FEMA FIRM maps for the areas around Hamilton City, Willows and Orland.

Implements policy: PSP-38

Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Department

PSI-39 Condition development permits to require installation of drainage and flood protection improvements.

Implements policy: PSP-40
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Building Department, Glenn County Planning Commission

PSI-40 Require new development to become a part of a service area or maintenance district for maintenance of drainage and/or flood protection improvements.

Implements policy: PSP-41
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Planning Department

PSI-41 Study the feasibility of a countywide service area to finance and undertake needed storm drainage and flood control measures.

Implements policy: PSP-41
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

Impact #3.2-2: Development and construction under the Plan could result in effects to the watershed and surface and ground water quality. Erosion and runoff could carry contamination into watercourses, including vehicular residues and agricultural chemicals.

Conclusion: Erosion effects were addressed in the previous section and were found to be less significant assuming adherence to Plan policies, standards, and implementation measures that would fully mitigate erosion effects. Water quality impacts from increased surface runoff on new developments, improper use of agricultural chemicals, on-site sewage disposal, and improper handling or disposal of hazardous materials and hazardous wastes, and loss or damage to watersheds could be significant if unregulated. However, policies, implementation measures, and standards for watershed protection in the *Policy Plan*, along with compliance with NPDES permitting procedures and implementation of the erosion control policies stated above (see under Impact #3.1-1), would reduce these impacts to a less

than significant level. **Applicable policies and implementation measures to mitigate water quality effects include:**

Policies: It shall be the policy of Glenn County to:

- PSP-42** Support ongoing regulatory and compliance efforts at the federal and State level for the protection of water quality.
- PSP-43** Support the *Rice Herbicide Action Plan* and encourage other agricultural practices that reduce the threat of surface water pollution from agricultural chemical use.
- PSP-44** Zone floodways and stream channels in a manner that promotes protection of water quality.
- PSP-45** Discourage on-site sewage disposal systems on small lots in areas containing gravelly soils.
- PSP-46** Support the preparation of area ground water studies to ensure the protection of ground water and to ensure that the holding capacity of the area is not exceeded.
- PSP-47** Support education programs that increase the public awareness of the proper disposal of hazardous wastes in order to protect ground water quality.

Standards for Erosion and Sedimentation Control and Watershed Protection

- All new development proposals within foothill or mountain areas or adjacent to streamcourses should include a county-approved grading, excavation, and erosion control plan to minimize the effects of erosion, including the loss of soils and reduction in water quality through increased sedimentation.
- Design of erosion control plans should comply with standard erosion control measures recommended by the U.S. Department of Agriculture, Soil Conservation Service. Typical erosion control measures include:
 - Development on or disturbance of steep slopes should be avoided whenever feasible.
 - Fill slopes should be constructed at a 2:1 ratio gradient or flatter.
 - V-ditches should be constructed above all cut or fill slopes to divert water from newly exposed slope faces.
 - All newly exposed or created slopes should be rapidly revegetated before the rainy season, preferably prior to October 15. Hydroseeding with

annual grasses is generally most effective. Permanent plantings of native drought-tolerant shrubs also are desirable after slopes are stabilized. Irrigation should be provided until slopes stabilize (usually two to four years).

- Soil disturbing activities should be conducted between May 1 and October 15, with all exposed areas mulched and seeded prior to October 15.
- Straw bale dikes or filter fabric barriers should be located downslope of disturbed areas to act as sediment traps. These should remain in place until newly exposed surfaces stabilize (i.e., two to four years).
- Temporary or permanent sedimentation basins should be constructed as necessary according to recommendations of the project engineer.
- Removed topsoil should be stockpiled and reused for landscaped areas. Stockpiles should be stabilized during rainy seasons (October 15 to May 1).
- Drainage channels should be stabilized, for example, by rock-lining, to prevent erosion.
- Water trucks, sprinkler systems, chemical soil binders, and rapid revegetation can prevent wind erosion of soils during the construction season.
- Erosion control measures should be implemented as a condition of project approval and monitored periodically to ensure effectiveness. An inspection by the County should be conducted following the first major storm after ground disturbance to evaluate effectiveness. The County should require a bond to be posted by the developer to ensure proper implementation and maintenance of temporary erosion and sediment control measures.
- An "edge" effect occurs where different habitats come into contact, such as where wetlands contact grasslands or oak woodlands. Edge zones are particularly productive and vital for wildlife. Building and development setbacks, open space corridors, or green belts should be provided to protect riparian corridors, waterways, and other wetlands. These setbacks should minimally include all riparian forest and other wetland habitat plus a minimum 50-foot wide corridor adjacent to them to preserve edge habitat and buffer riparian habitat from direct impacts.

Implementation Strategies, Programs and Priorities:

- PSI-42** Sponsor and assist with educational efforts that have as a goal greater public awareness and compliance with established water quality standards.

Implements policies: PSP-42, PSP-43
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Agricultural Commission

PSI-43 Actively seek funding to develop hazardous waste disposal educational programs.

Implements policy: PSP-47
Priority:1
Lead Agency: Glenn County Health Department
Coordinating Agency: Glenn County Agricultural Commissioner

PSI-44 Amend County ordinances to prohibit onsite sewage disposal systems on parcels smaller than two acres in size, within areas designated as septic limitations overlay.

Implements policy PSP-45
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-37 Apply floodway/floodplain zoning to lands within the designated floodways.

Implements policies: PSP-37, PSP-39, PSP-44
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, State Reclamation Board

NRI-27 Amend the *Glenn County Zoning Code* to include a Streamside Protection Zone and rezone those areas along stream courses currently zoned E-M (Extractive Industrial Zone) in accordance with a locally prepared riparian zone management plan.

Implements policies: NRP-40, NRP-41, PSP-44
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-18 Establish a local ground water management program, including strategies for advancing State legislation, to support a locally-controlled ground water management district.

Implements policies: NRP-21, NRP-22, NRP-30, PSP-46

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn County Health Department

NRI-20 Establish an overlay designation to provide appropriate protections for areas of the county where ground water recharge occurs, such as limitations on septic systems use and overcovering of soils with impervious surfaces. Consult with the State Department of Water Resources, the Glenn County Health Department and the Glenn County Planning Department, and incorporate protective measures into the *Glenn County Zoning Code*.

Implements policies: NRP-24, NRP-25, NRP-26, NRP-28, NRP-37, NRP-67, NRP-69, PSP-45, PSP-46, CDP-43

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Health Department, State Department of Water Resources, Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-21 Support efforts to seek funds and construct an alternative community sewage treatment and disposal system for West Orland and other areas of heavy septic tank use located in ground water recharge areas.

Implements policies: NRP-25, PSP-45

Priority: 3

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Health Department, Glenn County Planning Department

3.2.3 MITIGATION MEASURES

All potentially significant impacts identified above under Impact #3.2-1 will be mitigated to the greatest feasible extent by Plan policies, standards, and implementation measures, however, these risks will not be reduced to a less than significant level. No additional mitigation measures are available. All potentially significant effects under Impact #3.2-2 will be mitigated to a less than significant level by Plan policies, standards and implementation measures. Therefore, no mitigation measures are required.

3.3 BIOLOGICAL RESOURCES

3.3.1 SETTING

Please refer to Section 2.4 of Volume III, *Environmental Setting Technical Paper*, for a discussion of Planning Area vegetation and wildlife. Additional discussion of biological resources appears in Section 4.0 of the *Natural Resources Issue Paper*. Section 5.0 of the *Natural Resources Issue Paper* discusses timber resources.

3.3.2 IMPACTS

Impact Evaluation Criteria:

CEQA § 21001 states California's policies with respect to fish and other wildlife:

- to prevent elimination of fish or other wildlife species due to human activities
- ensure that fish and wildlife populations do not drop below self-perpetuating levels
- preserve representatives of all plant and animal communities for future generations

Section 15065 of the *CEQA Guidelines* defines a significant adverse effect of a project as one that:

- has the potential to substantially reduce the habitat of a fish or wildlife species or cause the population to drop below self-sustaining levels
- threatens to eliminate a plant or animal community
- reduces the number or restricts the range of a threatened or endangered plant or animal species

As defined by § 15380 of the *CEQA Guidelines*, a species is *endangered* when its survival and reproduction in the wild are in immediate danger from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease or other factors. Species are designated as *rare* when either:

- they are not presently threatened with extinction, but their numbers are so small throughout a significant portion of their range that they may become endangered if their environment worsens
- the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the federal Endangered Species Act

All animals designated as rare by the California Fish and Game Commission prior to January 1, 1985, were automatically reclassified as threatened by legislation.

In addition to CEQA criteria, this EIR also considers effects to species of special concern to the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) to be significant. Included are species listed on the State and federal Endangered Species Acts and other sensitive species as discussed below. Species of concern to CDFG are listed on the Natural Diversity Data Base (NDDB). For this EIR, species are considered "sensitive" if they are listed as threatened or endangered by the USFWS or CDFG or in federal Category 1 (candidates

for federal listing for which the USFWS has sufficient biological information to support a listing), federal Category 2 (candidates for federal listing for which substantial biological information to support a proposed ruling is lacking), or the state CSC list (species of special concern that are not yet on the state threatened or endangered lists). Sensitive species, sensitive habitats, and areas of important biological resources in Glenn County are discussed in both the *Environmental Setting Technical Paper* and the *Natural Resources Issue Paper*.

Another criterion for evaluating the significance of impacts to biological resources is compliance with the "no net loss" policy for wetlands. Achieving compliance with this policy is primarily the responsibility of the U.S. Army Corps of Engineers (COE) and USFWS at the federal level and the CDFG at the State level. The permitting process administered by the COE under Section 404 of the federal Clean Water Act is designed to mitigate effects to wetlands.

Impact #3.3-1: Implementation of the Plan could result in development that would affect biological resources, including sensitive plant and animal species, sensitive habitats, such as wetlands and riparian vegetation zones, deer herds, timber resources, and fisheries. Aside from their function as habitat for plants and animals, wetlands and watershed areas, including oak woodlands and timberlands, help protect water quality and minimize flood danger. Their loss could therefore have consequences beyond reduction of species habitat.

Conclusion: Virtually all developments have the potential to affect biological resources. While individual sensitive species may not be affected by some developments, each development potentially represents a cumulative loss of habitat and watershed. If unregulated, these effects could be individually and cumulatively significant. However, policies, standards, and implementation measures of the *Policy Plan* will reduce these effects to a less than significant level, and no mitigation measures are required. Those policies and implementation measures are as follows.

Policies: It shall be the policy of Glenn County to:

- NRP-38** Approach the retention and enhancement of important habitat by preserving areas or systems that will benefit a variety of species or resources rather than focusing on individual species, resources or properties.
- NRP-39** Consider sponsoring habitat conservation plans pursuant to the federal Endangered Species Act when sensitive species are encountered in areas proposed for development.
- NRP-40** Preserve natural riparian habitat, especially along Stony Creek and the Sacramento River.
- NRP-41** Eliminate the E-M (Extractive Industrial) Zone from areas containing natural riparian vegetation/habitat and replace it with a category affording greater protection to streamcourses.

- NRP-42** Support programs that expand public hunting and outdoor educational opportunities in Glenn County, including beneficial agricultural practices and pay-to-hunt enterprises.
- NRP-43** Recognize that retention of natural areas is important to maintaining adequate supplies of game, which is, in turn, important to the local economy.
- NRP-44** Encourage development of hunting opportunities in the county in an effort to offset the costs of natural habitat preservation while assuring that such activities are consistent with the public health and safety.
- NRP-45** Provide protection to biological resources of local importance, such as foothill oak woodlands, the Orland Buttes, Stony Gorge and Black Butte Reservoirs.
- NRP-46** Recognize and protect areas of biological importance when reviewing development related proposals.
- NRP-47** Study the feasibility of establishing buffer areas around the Sacramento National Wildlife Refuge and other areas of biological importance, recognizing, however, that State and federal government should assist in offsetting the economic costs to property owners and the County.
- NRP-48** Coordinate with State and federal agencies and private preservation/conservation groups in habitat preservation and protection of rare, endangered, threatened and special concern species, to ensure consistency in efforts and to encourage joint planning and development of areas to be preserved.
- NRP-49** Recognize the Sacramento River corridor, the Sacramento National Wildlife Refuge, migratory deer herd areas, naturally occurring wetlands, and stream courses, such as Butte and Stony Creeks, as areas of significant biological importance.
- NRP-50** Coordinate with wildlife agencies, the Army Corps of Engineers and the State Lands Commission during review of development permits.
- NRP-51** Utilize the *Sacramento River Marina Carrying Capacity Study* findings when reviewing proposals for development along the Sacramento River.
- NRP-52** Direct development away from naturally occurring wetlands to the extent such policy is consistent with the concept of compact and contiguous development.
- NRP-53** Coordinate closely with the Mendocino National Forest, if development proposals are forthcoming for private lands within the Forest.

- NRP-54** Seek membership on the Sacramento Valley Bioregion Regional Council proposed to be created by State and federal land management agencies.
- NRP-55** Require notice to the Board of Supervisors for the conversion of land to wildlife habitat preserve prior to acquisition of easements or fee title purchase by State and federal land management agencies, and seek early consultation with agencies if such conversion is under consideration.
- NRP-56** Oppose additional fee title purchases of land by State and federal land management agencies that do not guarantee payments in-lieu of taxes.
- NRP-57** Advocate full federal funding of the federal Refuge Revenue Sharing Act.
- NRP-58** Advocate a property tax replacement program applicable to lands diminished in value by easements purchased by State and federal land management agencies.
- NRP-59** Support efforts to improve water management when the potential exists to benefit fish and wildlife as long as no adverse impacts to other water users occur.
- NRP-60** Preserve public and private timber lands and reserve them for that use, while at the same time encouraging compatible recreation and open space uses.
- NRP-61** Evaluate rezoning requests in the context of the potential uses and their associated impacts on surrounding timberlands.
- NRP-62** Require biological surveys of timberland as a part of the review process when zone changes, use permits or other development plans are submitted to the County, including an evaluation of the site's utility for timber production.
- NRP-63** View timberlands as critical watershed area and apply watershed protection standards contained in this *General Plan* for vegetation retention, stream and drainage course setbacks, cut and fill activities, land coverage and limitations on development on steep slopes.
- NRP-64** Cooperate with federal and State agencies on programs designed to protect and improve watershed values.
- NRP-65** Discourage trades of private lands with the National Forest that would result in a loss of local tax base, unless they are seen as necessary to the preservation of critical watershed and wildlife areas.

- NRP-66** Assure that as development occurs in remote timbered areas of the county, such development pays its fair share of service related costs through appropriate assessments and mitigation fees.

Standards for Watershed Protection that Apply to Biological Resources and Habitats

- An "edge" effect occurs where different habitats come into contact, such as where wetlands contact grasslands or oak woodlands. Edge zones are particularly productive and vital for wildlife. Building and development setbacks, open space corridors, or green belts should be provided to protect riparian corridors, waterways, and other wetlands. These setbacks should minimally include all riparian forest and other wetland habitat plus a minimum 50-foot wide corridor adjacent to them to preserve edge habitat and buffer riparian habitat from direct impacts.

Standards for Protection of Oak Woodland Habitats

- During construction, fill should not be placed within the dripline (i.e., the perimeter of the crown) of oaks and no closer than 10 feet from the trunk. The dripline of trees should be fenced during grading and construction.
- Soil compaction, which could damage root systems and interfere with vital gas and nutrient exchanges in the roots, should be prevented by not operating or storing heavy equipment within oak driplines.
- Excavations around trees should be minimized. Depth of excavations should be the minimum required. Utility lines should be combined in single trenches whenever possible.
- If roots need to be removed, they should be cut rather than torn and immediately covered with mulch or soil to prevent desiccation.
- Developers should submit a tree protection plan along with grading and erosion control plans when oak woodlands are present.
- Individuals who purchase lots in new subdivisions should be provided with literature on native oak protection. Watering of native oaks should be prevented, and drought-tolerant landscape vegetation, preferably native species, should be planted among oaks. Only those oaks that must be cut for homesites, roads, and driveways should be cut. All other removals should be by permit which can be implemented and monitored through the CC&Rs of a homeowner's association.
- Within native oak rangelands, wildlife habitat and other values can be enhanced by:

- leaving brush piles where they do not pose a fire hazard; brush piles are used by quail and other animals for food and shelter
- leaving snags (i.e., dead, standing trees) for wildlife, such as woodpeckers, predatory birds, and other species
- adding water impoundments, such as ponds and reservoirs (but not too close to trees), to attract diverse wildlife and improve fire-fighting capabilities
- promoting diversity in vegetation, which will promote wildlife diversity; leaving shrubby vegetation at the edge of woodlands will invite deer, quail, and other species
- selective thinning to increase growth of remaining trees, stimulate young trees, produce some firewood, encourage wildlife, provide more forage for livestock, improve fire safety, and maintain or enhance the oak ecosystem
- The County should discourage firewood harvesting in foothill oak woodlands through public education and awareness efforts. Use of these lands for sustainable activities, such as livestock grazing and private recreational hunting preserves, can be shown to provide more economic return than firewood harvesting.
- Over-grazing should be avoided. Livestock density should be geared to the quality of rangeland. Providing for wildlife foraging on grazing lands by slightly reducing livestock densities, retaining oak trees, and establishing private hunting preserves, for which there is presently a growing market, could enhance economic productivity as well as oak woodland preservation.
- The County should require permits for commercial firewood harvesting. Permit requirements may include provisions for leaving a minimum of 25% of the adult trees and replanting with locally native oak species to replace harvested trees. Access standards regulating vehicular use for firewood cutting should be incorporated into firewood harvesting permits in order to control potential hillside and stream crossing damage. Brochures that discuss rangeland preservation and describe more profitable and sustainable uses of oak woodlands could accompany permits.

Standards for Coordination with Wildlife and Land Management Agencies

- For all projects, with the exception of those associated with sites obviously devoid of wildlife value, early consultation with wildlife agencies should occur. Early consultation should take the form of a referral from the Planning Department soon after receipt of the application requesting input regarding biological concerns. Early consultation requests should be accompanied by the application and other available information. Sites for which this process

need not apply include infill projects in substantially built-up areas or other situations where existing development predominates on the site.

- If early consultation identifies wildlife issues, including wetlands or other habitat, a meeting should be scheduled with the involved agency(ies), which includes the County and applicant, to further refine wildlife issues and discuss potential mitigation.
- The CEQA Initial Study should reflect these early discussions and formally identify feasible mitigation measures.
- During preparation of the required Mitigated Negative Declaration or Environmental Impact Report, discussion/negotiation should continue with the affected agencies to assure that appropriate mitigation measures of sufficient detail are included in the environmental document to allow the project to move forward without delay. As a part of the CEQA documentation, necessary biological surveys and wetlands delineations should be performed and utilized in discussion/negotiation.
- Prior to public hearing, required mitigation measures should be agreed on and the project appropriately modified. Where this is not possible, decision-makers should be presented with opposing viewpoints accompanied by a staff recommendation.

Standards for Development Along the Sacramento River

- Development should avoid environmentally sensitive areas to the maximum extent; such areas include habitat for threatened and endangered species and riparian vegetation.
- Development proposals should incorporate all feasible modifications and construction techniques to eliminate or minimize adverse impacts on ecological resources of land and water.
- Replacement of riparian vegetation should be planned by experts familiar with native riparian plants and their requirements, and monitoring programs should be established to ensure the satisfactory completion and maintenance of revegetation programs.
- The overall goal of mitigation should be that post-project habitat productivity is at least equal to pre-project habitat productivity. Determinations of habitat productivity should be made by a panel of qualified biologists using habitat analysis methods acceptable to the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

Implementation Strategies, Programs and Priorities:

- NRI-25** Actively seek funding to develop water conservation and educational programs.
- Implements policies: NRP-34, NRP-35, NRP-59
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agencies: Glenn County Resource Conservation District, Glenn County Planning Department
- NRI-26** Establish a working relationship with the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and private preservation/conservation groups to identify areas appropriate for habitat retention, enhancement and conservation.
- Implements policies: NRP-38, NRP-39
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: California Department of Fish and Game, U.S. Fish and Wildlife Service, Nature Conservancy, Ducks Unlimited
- NRI-27** Amend the *Glenn County Zoning Code* to include a Streamside Protection Zone and rezone those areas along stream courses currently zoned E-M (Extractive Industrial Zone) in accordance with a locally prepared riparian zone management plan.
- Implements policies: NRP-40, NRP-41, PSP-44
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- NRI-28** As a part of local economic development efforts, create a local committee to support and encourage development of public hunting and outdoor educational activities.
- Implements policies: NRP-42, NRP-43, NRP-44
Priority: 2
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation
- NRI-29** Amend the *Glenn County Zoning Code* to include standards for hunting lodges, clubs and camps, as set forth in this *General Plan*.
- Implements policy: NRP-44
Priority: 2

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Health Department

NRI-30 Amend the *Glenn County Zoning Code* to include standards for protection of oak woodlands as set forth in this *General Plan*.

Implements policy: NRP-45
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, California Department of Fish and Game

NRI-31 Recognize the importance of preserving natural areas in the vicinity of Orland Buttes, Stony Gorge Reservoir and Black Butte Reservoir when delineating land uses on the *Land Use Diagram*.

Implements policies: NRP-45, NRP-46
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-32 Meet with the U.S. Fish and Wildlife Service to determine if there is interest in buffer areas around the Sacramento National Wildlife Refuge and other areas of biological importance, and how the federal government would participate in their formation.

Implements policy: NRP-47
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game

NRI-33 Follow procedures established in the Standards section of this *General Plan* to assure adequate coordination, including any forms of mitigation or compensation that may be required, with wildlife agencies, the Army Corps of Engineers and the State Lands Commission during review of development permits.

Implements policies: NRP-48, NRP-50
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game, State Lands Commission, Army Corps of Engineers, Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-34** Identify biologically important areas, such as the Sacramento River Corridor, Sacramento National Wildlife Refuge, migratory deer herd ranges, naturally occurring wetlands, and stream courses such as Butte and Stony Creeks, and show them as constraints to development in this *General Plan*.
- Implements policies: NRP-49, NRP-52
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- NRI-35** Adopt a finding for development proposals along the Sacramento River that the project is consistent with recommendations contained in the *Sacramento River Marina Carrying Capacity Study*, as set forth in the Standards section of this *General Plan*, prior to taking an action for approval.
- Implements policy: NRP-51
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- NRI-36** Consult with the U.S. Forest Service during the initial review of any development proposals on private lands within the Mendocino National Forest.
- Implements policy: NRP-53
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: U.S. Forest Service
- NRI-37** Contact sponsoring agencies and formally express an interest in having a County representative serve on the proposed Sacramento Valley Bioregion Regional Council.
- Implements policy: NRP-54
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game
- NRI-38** Communicate directly with State and federal agencies concerning the County's opposition to additional fee title purchases of land by agencies without full payment in lieu of taxes.

Implements policies: NRP-56, NRP-57, NRP-65

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

- NRI-39** Lobby State and federal legislators for a property tax replacement program for lands diminished in value by easements purchased by State and federal land management agencies.

Implements policies: NRP-58, NRP-65

Priority: 1

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

- NRI-40** Amend the *Glenn County Zoning Code* to include a procedure for requiring notice prior to the conversion of land to wildlife habitat preserve.

Implements policy: NRP-55

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-41** Retain TPZ (timberland Preserve Zone) or OS (Open Space) zoning on timberland, and deny future requests for rezoning that would be incompatible with timber production.

Implements policies: NRP-60, NRP-61

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-42** Amend the *Glenn County Zoning Code* to require biological surveys as part of the application process for development requests on land utilized for timber production.

Implements policy: NRP-62

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-43 Amend the *Glenn County Zoning Code* to include standards for watershed protection as set forth in this *General Plan*.

Implements policies: NRP-63, NRP-64

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-44 Communicate directly with federal agencies concerning the County's opposition to trades of private lands with the National Forest that would result in a loss of local tax base.

Implements policy: NRP-65

Priority: 2

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn County Assessor

NRI-45 Adopt mitigation fees and special assessments for development that occurs in remote timbered areas of the county.

Implements policy: NRP-66

Priority: 3

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

3.3.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.4 MINERAL AND ENERGY RESOURCES

3.4.1 SETTING

Please refer to Section 2.5 of Volume III, *Environmental Setting Technical Paper*, for a discussion of Planning Area mineral and energy resources. Additional discussion of mineral and energy resources appears in Section 6.0 of the *Natural Resources Issue Paper*. The most economically important mineral and energy resources in Glenn County are sand and gravel and natural gas. Figures 2-8 and 2-9 of the *Environmental Setting Technical Paper* show locations of sand and gravel operations and natural gas deposits of Glenn County, respectively.

3.4.2 IMPACTS

Impact Evaluation Criteria:

The Public Resources Code (Sections 2762-2764) states that within twelve months of receiving mineral classification information from the State Geologist, a jurisdiction shall establish mineral resource management policies for incorporation into the general plan that emphasize the conservation and development of identified mineral deposits. The open space element must address the issue of open space management for areas containing major mineral deposits and watershed areas. The general distribution and location of lands containing natural resources, such as mineral deposits, must be addressed in the land use element.

In its definition of environmental impacts, the *CEQA Guidelines* (§ 15126 [e]) state that special attention should be given to impacts that narrow the range of beneficial uses of the environment. These impacts would presumably include committing lands to uses that preempt the extraction or use of mineral and energy resources. If such is the case, overriding concerns should be adopted explaining why the proposed use is more beneficial to society than use of the land for mineral extraction or energy development. Section 15126 [f] of the *CEQA Guidelines* also identifies as a significant impact the irreversible commitment to a land use that would make removal of non-renewable resources unlikely; "Irretrievable commitments of resources should be evaluated to assure that such current consumption (of land) is justified."

Conversely, significant and possibly irretrievable impacts could occur after mineral and energy resources are extracted if proper attention is not given to reclamation of mineral extraction areas. Reclamation must be sufficient to permit other long-term land uses and protect public health and safety.

Impact #3.4-1: Adoption of the Plan may result in effects relating to short-term uses of land or irretrievable commitment of land to uses that would preclude the option of extracting mineral or energy resources.

Conclusion: This impact could be directly, indirectly, or cumulatively significant. Policies and implementation measures in the *Policy Plan*, however, are intended to mitigate or prevent such effects. Assuming that the following policies and implementation measures are adopted, the impact is reduced to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- NRP-67** Encourage a resource management role for the County.
- NRP-70** Include the Stony Creek fan aggregate resource on the ground water recharge overlay to the *Land Use Diagram* and reference the overlay when reviewing development proposals in order to protect the resource from future incompatible encroachment, including overcovering by houses and other forms of development.
- NRP-71** Assure proper management of the Stony Creek aggregate resource.
- NRP-73** Eliminate the E-M (Extractive Industrial) Zone and replace it with a regulatory framework that allows for appropriate regulation of the

aggregate industry while also protecting the aggregate resource from incompatible encroachment.

- NRP-74** Support the natural gas industry while assuring that its operations are carried out in a safe and environmentally responsible manner.
- NRP-75** Protect gas fields from incompatible development and encroachment through appropriate land use planning.
- NRP-76** Consider the location of gas wells when drafting urban limit lines or considering approval of urban development.
- NRP-77** Entertain proposals for additional hydroelectric development and biomass energy conversion, subject to the siting policies contained in the *Energy Element* of the *General Plan*.

Implementation Strategies, Programs and Priorities:

- NRI-46** Amend the *Glenn County Zoning Code* to require conditional use permits for mineral extraction operations in all zones where mineral extraction is allowed; as conditions of approval for these permits, require payment of mitigation fees to compensate for environmental degradation and resource depletion; and require the posting of security to assure implementation of approved reclamation plans.

Implements policies: NRP-67, NRP-68, NRP-69, NRP-71, NRP-72

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-47** Adopt a floodway/floodplain zoning classification (Streamside Protection Zone and apply such zoning to properties currently zoned E-M (Extractive Industrial) and used for mineral extraction, and to properties located in the Stony Creek fan area.

Implements policies: NRP-67, NRP-70, NRP-73

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-48** Develop a Stony Creek fan aggregate resource management plan including standards for in-channel extraction as well dry land extraction, and limit new extraction approvals until such a plan can be implemented.

Implements policies: NRP-67, NRP-71
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-49 Enforce the natural gas well standards contained in the *Glenn County Zoning Code* and require conditional use permits for any gas wells that do not meet these standards.

Implements policies: NRP-67, NRP-74, NRP-75
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Building Department

NRI-50 Review requests for urban development for compliance with the adopted standards for natural gas wells and require setbacks for new development in accordance with those standards.

Implements policies: NRP-75, NRP-76
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-51 Adopt the *Energy Element* of the *General Plan* and implement the objectives and strategies set forth therein.

Implements policy: NRP-67, NRP-77
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Building Department

Impact #3.4-2: Failure to reclaim or rehabilitate lands following mineral extraction operations can preclude other beneficial uses and/or adversely affect public health and safety.

Conclusion: This effect can be significant, both directly and cumulatively, without proper regulation to ensure reclamation of lands used for mineral extraction. The following Plan policies and implementation measures are designed to require reclamation after such uses. Furthermore, a *Capital Improvements Plan* to identify funding needs and an *Impact Mitigation Fees Program* to identify funding sources for mineral extraction reclamation are being prepared for adoption by the County in conjunction with the Plan. Plan provisions require impact mitigation fees, both to assure reclamation and compensate for resource depletion. The *Impact Mitigation Fees Program* will specify what those fees will be and how their collection will be implemented. Assuming adoption of the following *Policy Plan* provisions,

the *Capital Improvements Plan*, and the *Impact Mitigation Fees Program*, the effects of mineral extraction will be reduced to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- NRP-68** Require that mineral extraction operations within streams as well as dry land deposits be performed in a way that is compatible with surrounding land uses, does not adversely affect the environment, and that mitigates related impacts through site-specific mitigation measures.
- NRP-69** Establish mitigation fees for mineral extraction operations that not only compensate for environmental degradation that may occur, but also compensate for resource depletion.
- NRP-72** Require that adequate security be posted to assure that surface mining reclamation plans are implemented.

Implementation Strategies, Programs and Priorities:

- NRI-46** Amend the *Glenn County Zoning Code* to require conditional use permits for mineral extraction operations in all zones where mineral extraction is allowed; as conditions of approval for these permits, require payment of mitigation fees to compensate for environmental degradation and resource depletion; and require the posting of security to assure implementation of approved reclamation plans.

Implements policies: NRP-67, NRP-68, NRP-69, NRP-71, NRP-72

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

3.4.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.5 CULTURAL RESOURCES

3.5.1 SETTING

Cultural resources are discussed in Section 2.6 of the *Environmental Setting Technical Paper* and Section 7.0 of the *Natural Resources Issue Paper*. Please refer to those documents for appropriate setting discussions. The discussion in the *Natural Resources Issue Paper* also includes scenic and aesthetic resources, which will be addressed in this EIR under a separate heading.

3.5.2 IMPACTS

Impact Evaluation Criteria:

The first comprehensive legislation that was promulgated with the intent of providing protection for cultural resources on federal lands was the Antiquities Act of 1906 (16 USC 431). A comprehensive national policy for preservation of the cultural environment was provided by the National Historic Preservation Act of 1966 (16 USC 470). This act established a National Register of Historic Places as well as eligibility criteria for the National Register, which define cultural resources that are significant under federal law. It also established procedures for avoiding or mitigating impacts to cultural resources as a result of federal undertakings. The National Environmental Policy Act (NEPA) of 1969 (16 USC 4321), the landmark legislation that served as a model for the California Environmental Policy Act (CEQA), declared that it is the policy of the federal government to preserve important historical and cultural properties that represent our national heritage. NEPA requires consideration of adverse impacts to cultural resources in the planning process for federal projects or privately initiated undertakings on federal lands or that require federal licensing, permits, or funding.

Executive Order 11593 (1971), signed by President Nixon, strengthened these acts by requiring federal agencies to assume a leadership role in "preserving, restoring, and maintaining the historic and cultural environment of the nation." As a result of this Executive Order, states appointed State Historic Preservation Officers (SHPOs), with whom federal agencies were compelled to consult regarding the effects of federal undertakings on cultural resources in the 50 states. Also as a result of the Executive Order, many or most states, including California, adopted legislation to protect cultural resources on state-administered and privately-owned lands. Other federal legislation includes the Archaeological Resources Protection Act, which among other provisions specifies minimum qualifications for archaeologists who conduct cultural resources investigations on federal lands.

Appendix G to the CEQA Guidelines (item "j") states that "a project will normally have a significant effect on the environment if it will disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group...except as a part of a scientific study." Appendix K to the CEQA Guidelines prescribes guidance for mitigating archaeological impacts and establishes criteria for evaluating the significance of archaeological resources. Under these criteria, an "important archaeological resource" is one that:

- A. Is associated with an event or person of recognized significance in California or American History or recognized scientific importance in prehistory
- B. Can provide information that is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions
- C. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind

- D. Is at least 100 years old and possesses substantial stratigraphic integrity (i.e., it is essentially undisturbed and intact)
- E. Involves important research questions that historical research has shown can be answered only with archaeological methods

In addition to CEQA criteria, the significance of archaeological and historical sites is often evaluated against eligibility criteria of the National Register of Historic Places (NRHP). These criteria are summarized below:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history, or
2. That are associated with the lives of persons significant in our past, or
3. That embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
4. That have yielded or may be likely to yield information important in prehistory or history

These state and federal guidelines imply that archaeological significance is measured primarily in terms of the historical or archaeological research value of the resource. However, both state and federal regulations and guidelines acknowledge that, aside from archaeological and historical values, cultural resources can be significant for their cultural or religious values (e.g., cemeteries and sacred places). The federal Native American Religious Freedom Act of 1979 provides protection for sites of Native American sacred significance. State laws promulgated under SB 297 (Garamendi 1982) prescribe specific treatment for Native American human remains discovered during archaeological investigations or through excavation associated with development.

Impact #3.5-1: A records search revealed a total of 464 recorded cultural resources (i.e., archaeological and historic sites) in Glenn County. However, only a small percentage of Glenn County lands have been surveyed for cultural resources by a qualified professional archaeologist. Therefore, it must be assumed that additional cultural resources exist in the County. Virtually all land uses have the potential to adversely affect significant cultural resources.

Conclusion: Impacts to individual important cultural resources are significant. The loss of multiple cultural resources can have a cumulative effect, because loss of multiple cultural sites and site types would reduce the ability of archaeologists to reconstruct the lifeways of prehistoric peoples or early European and American settlers in the county. Adoption of Plan goals, policies, implementation measures, and standards for cultural resources will

reduce the impact to a less than significant level. Plan policies and implementation measures for cultural resources include:

Policies: It shall be the policy of Glenn County to:

- NRP-78** Protect identified areas of unique historical or cultural value within the county and preserve those sites for educational, scientific and aesthetic purposes.
- NRP-79** Recognize the following historic sites in future planning and decision making:
- Monroeville Cemetery Historical Site
 - Will S. Green Monument
 - Swift Adobe Monument
 - Kanawha Cemetery Monument
 - Monroeville and Ide Monument
 - Willows Monument
 - Jacinto Landing
 - Historic School Sites
- NRP-80** Consider preparation of an historic preservation plan.
- NRP-81** Require proper evaluation and protection of archaeological resources discovered in the course of construction and development.
- CDP-44** Discourage urban growth in floodplains, aquifer recharge areas, scenic and historic sites, or other sensitive areas as specified in this *General Plan*.

Standards for Archaeological Surveys

- The objectives of all archaeological surveys shall be to locate, record, and evaluate the archaeological importance of all historic and prehistoric cultural resources within the survey area. Recording shall adhere to guidelines of the most recent *Handbook for Completing an Archaeological Site Record* published by the California Office of Historic Preservation, Sacramento. Archaeological importance shall be evaluated against criteria in Appendix K to the *CEQA Guidelines*. For projects with federal involvement (i.e., those on federal lands or requiring federal licensing, permitting, or funding), procedures of Section 106 of the National Historic Preservation Act of 1966 shall be adhered to and archaeological significance shall be evaluated against National Register of Historic Places eligibility criteria. Impacts to resources found to be archaeologically important or significant under state or federal criteria shall be considered significant impacts.

- The project archaeologist shall be a qualified professional who is certified by the Society of Professional Archaeologists (SOPA) or who can demonstrate equivalent qualifications.
- All archaeological surveys shall be preceded by a records search of the California Archaeological Inventory, Northeast Information Center, California State University, Chico. The purposes of the records search are to:
 - determine whether the property had been previously surveyed for cultural resources
 - determine whether previously recorded cultural resources are present on the property
 - determine if California Historic Landmarks or sites listed on the National Register of Historic Places occupy the property
 - provide information regarding the archaeological sensitivity of the project area to aid in developing appropriate survey strategies
- All archaeological surveys shall be *complete* surveys. Sampling strategies are generally considered inappropriate and inadequate.
- Survey strategies shall be designed to provide a reasonable opportunity to encounter all cultural resources within the project area, regardless of size and type.
- Mitigation shall be provided in accordance to mitigation criteria in Appendix K to the *CEQA Guidelines*.
- °Treatment of human remains shall be in accordance with state law as summarized in Appendix K to the *CEQA Guidelines*.
- °Whenever cultural resources (i.e., artifacts, sites, features, and structural remains that represent past human activity) that had not previously been identified and recorded during an archaeological survey are encountered during construction, work on that location shall cease immediately until a professional archaeologist can be consulted to evaluate the significance of the find and implement appropriate mitigation measures in consultation with the County and the landowner or developer.

Implementation Strategies, Programs and Priorities:

- NRI-52** Show recognized historic sites and other areas of unique cultural value on an overlay to the *Land Use Diagram* and reference the overlay when reviewing development proposals.

Implements policies: NRP-78, NRP-79

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, California Archaeological Inventory Information Center

- NRI-53** Establish a local committee of citizens to determine the interest in the future development of an historic preservation plan, containing policies and standards for protection of historic resources.

Implements policy: NRP-80

Priority: 3

Lead Agency: Glenn County Board of Supervisors

Coordinating Agency: Glenn County Planning Department

- NRI-54** Require development projects to comply with the process outlined in Appendix K of the *CEQA Guidelines* for protection of archaeological resources.

Implements policies: NRP-81, NRP-82

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-55** Require archaeological surveys of potential development sites in accordance with the standards set forth in this *General Plan*.

Implements policy: NRP-81

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- CDI-13** Prepare and adopt a *Land Use Diagram* that is consistent with the goals and policies of this *General Plan*.

Implements policies: CDP-28 through CDP-32, CDP-34, CDP-37, CDP-40, CDP-44, CDP-47, CDP-48, CDP-74, CDP-76

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-14 Apply zoning that is consistent with the *Land Use Diagram* and the standards set forth in this *General Plan*.

Implements policies: CDP-19, CDP-21, CDP-28, CDP-29, CDP-31 through CDP-37, CDP-40, CDP-43, CDP-44, CDP-47, CDP-48

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

3.5.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.6 PUBLIC HEALTH AND SAFETY

3.6.1 SETTING

This section includes the issues of risk of upset and the safe handling, identification, and transport of hazardous materials and hazardous wastes within the county. Also included are wildland fire hazards. Other public health and safety issues, such as water and air quality, noise, geologic hazards, and traffic safety are addressed under other headings in the EIR. Police and fire protection are discussed under the heading of public services. Public safety setting discussions appear in Section 3.0 of the *Environmental Setting Technical Paper* and throughout the *Public Safety Issue Paper*. Please refer to those documents for appropriate setting discussions.

3.6.2 IMPACTS

Impact Evaluation Criteria:

Government Code Section 65302 [g] provides that a general plan shall include a safety element for the protection of the community from any risks associated with geologic hazards, wildland and urban fires. Appendix G to the *CEQA Guidelines* states that a project will have a significant effect on the environment if it will:

- cause substantial flooding, erosion or siltation
- expose people or structures to major geologic hazards
- create a potential public health hazard or involve the use, production, or disposal of materials that pose a hazard to people or animal or plant populations in the area affected
- interfere with emergency response plans or emergency evacuation plans

Section 15065 of the *CEQA Guidelines* requires a mandatory finding of significance for all project effects that will have a substantial adverse effect on human beings, directly or indirectly.

Urban and Wildland Fires. Under State General Plan guidelines, the safety element must not only identify unreasonable risks associated with wildland and urban fires but also address

evacuation routes, peak load water supply requirements, minimum road widths, and clearance around structures as these issues relate to known fire hazards. State standards governing fire protection were published by the California Board of Forestry (1991). All counties in California were required in 1991 to adopt local fire safety regulations that meet CDF firesafe standards. In effect, these regulations made earlier fire safety advisory guidelines of the CDF mandatory for local governments. These guidelines also address requirements for peak-load watersupplies for fire suppression. The policies and implementation measures below call for formally adopting an ordinance incorporating these guidelines.

One method of measuring overall fire protection capability of an area, thereby providing a criterion for measuring the potential effect of approving a project in that area, is the ISO (Insurance Service Organization) rating system. The ISO uses a Fire Suppression Rating Schedule with ten public protection classifications. Class 1 receives the most rate recognition (i.e., insurance rates are lower) and Class 10 receives no recognition. The Fire Suppression Rating Schedule defines different levels of public fire suppression capabilities, which are reflected in the individual property fire insurance rate establishment procedures. Figure 3-2 of the *Public Safety Issue Paper* shows fire hazard severity zones in Glenn County. The *State General Plan Guidelines* recommend the following planning standards be applied to areas with wildland fire potential:

- **Access and Evacuation Routes:** There should be sufficient access for emergency vehicles and for evacuation of residents. Two or more routes of access should be provided, preferably on different sides of the development.
- **Road and Structural Identification:** All roads in wildland fire areas should be well marked and homes should have addresses in plain view.
- **Roadway Widths:** Roadways should allow for two-way traffic with room for parking on at least one side.
- **Water Supply:** There should be sufficient water supply for fire suppression units in the event of a wildland fire.

The Uniform Fire Code gives local fire chiefs broad powers to regulate hazardous fire area uses, for example, bans on outdoor burning, requirements to clear brush and other fuels from around structures. Fire chiefs may also close areas to the public during periods of extreme fire danger and prohibit smoking, bonfires, the use of motorcycles and other vehicles. Violators of these restrictions may be charged with the costs of fighting fires they cause. These powers, held by the County, complement similar powers of the CDF in its areas of responsibility.

Risk of Chemical Upset. Regulations of the Occupational Safety and Health Administration (OSHA) and National Institute of Occupational Safety and Health (NIOSH) govern handling and storage of hazardous materials in the workplace. On the state level, the Waters Bills (AB 2185, 2187 — 1985 and 1986) require any business handling hazardous materials to file a business plan for emergency response to a release of the material. The bills also provide for an inventory

of such materials at all places of employment. Ordinarily, county fire departments or offices of emergency services maintain these inventories and business plans. The California Code has several sections pertaining to the transportation and handling of hazardous substances. The Hazardous Substances Information and Training Act provides mandatory training for employees who handle hazardous materials. Along with many ordinances, regulations, and legislative mandates regarding the storage and use of hazardous materials, policies governing use and handling of these materials are often in the *General Plan*. Often, zoning ordinances address the handling or storage of hazardous materials. A hazardous materials element can also be included in a general plan. Glenn County has a Hazardous Waste Management Plan (HWMP) that was incorporated by reference into the *General Plan*. In order to reduce the risk of upset to a less than significant level, a general plan should incorporate these various State and federal regulations and guidelines to make them policy at the local level and to provide a mechanism for their effective implementation.

Impact #3.6-1: Development initiated under the *General Plan* could potentially expose people and property to urban and wildland fires.

Conclusion: Without proper regulation, the effects of fires on property and public health and safety could be far more disastrous than at present. The *Policy Plan* includes comprehensive policies and implementation measures to reduce potential fire hazards. The County will soon adopt a *Capital Improvements Plan* to identify funding needs and an *Impact Mitigation Fees Program* for fire protection services and facilities to identify funding sources and implement a fees program. Assuming that the following policies and implementation measures and other Plan provisions are adopted along with the *Capital Improvements Plan* and the *Impact Mitigation Fees Program*, the risks and effects associated with fires will be mitigated. Although fires will never be fully eliminated, and the effect cannot be reduced to a less than significant level, these provisions will provide the maximum feasible protection to the people and property of Glenn County.

Policies: It shall be the policy of Glenn County to:

- PSP-9** Continue to support the County's volunteer fire forces and offer incentives for continued participation.
- PSP-10** Establish a minimum level of service for fire protection.
- PSP-11** Determine the impact proposed development will have on the provision of fire protection services, and assure that the established level of service is maintained.
- PSP-12** Regularly review and evaluate fire district boundaries to determine if the existing service areas are the most efficient and cost-effective.
- PSP-13** Establish as a priority adequate funding and fire fighting personnel for those areas targeted for growth.

- PSP-14** Encourage fire districts to work with the County to require new development to pay its fair share for new fire stations, equipment, personnel and fire suppression improvements necessary to provide adequate fire protection services.
- PSP-15** Actively involve fire protection personnel in land use planning decisions.
- PSP-16** Require new development to be designed with fire protection and prevention in mind.
- PSP-17** Apply contemporary fire prevention standards to all development.
- PSP-18** Evaluate the creation of urban area fire departments for the Willows and Orland areas that would serve both the developed areas and developing areas within established urban limit lines.
- PSP-19** Study the consolidation of responsibility for structural as well as wildland fire protection in areas currently under California Department of Forestry and U.S. Forest Service jurisdiction.
- PSP-20** Consider fire risk and hazard zones when approving residential development in areas subject to potential wildland fires.
- PSP-21** Require that all community water systems serving new development meet or exceed Glenn County minimum standards for water for peak load demands and required fire flows.
- PSP-22** Comply with the State of California *Fire Safety Regulations* for the State Responsibility Area located within Glenn County.
- PSP-23** Assign house numbers for all structures within the county.
- PSP-24** Consult the *Emergency Response Plan* when reviewing future development proposals throughout the county.
- PSP-25** Encourage development of educational programs that will increase public awareness of fire safety and emergency response planning.
- PSP-26** Periodically update the *Emergency Response Plan*.

Implementation Strategies, Programs and Priorities:

- PSI-9** Encourage employers to permit paid time off and flexible schedules for those individuals involved in volunteer fire fighting and training.
- Implements policy: PSP-9
Priority: 1

Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Local fire districts

PSI-10 Maintain a service level based on ISO ratings of no less than 8 for rural areas and no less than 5 for urbanized areas.

Implements policies: PSP-10, PSP-11
Priority: 1
Lead Agency: Local fire districts
Coordinating Agency: Glenn County Board of Supervisors

PSI-11 Consult with fire protection agencies during the initial review of development proposals.

Implements policies: PSP-11, PSP-15
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service

PSI-12 Utilize the Local Agency Formation Commission (LAFCo) to review the efficiency and cost effectiveness of current fire service boundaries and modify those boundaries over time as development trends dictate.

Implements policies: PSP-12, PSP-18
Priority: 2
Lead Agency: Glenn County Local Agency Formation Commission
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

PSI-13 Actively seek funding to support additional fire fighting personnel and services.

Implements policies: PSP-13
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Local fire districts

PSI-14 Require as a condition of approval for development permits the establishment of a Mello-Roos district and/or fire service impact fees, or other similar funding mechanisms.

Implements policies: PSP-11, PSP-13, PSP-14
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Auditor - Tax Collector

- PSI-15** Condition development permits to incorporate fire prevention techniques into the project design.
- Implements policies: PSP-16, PSP-17
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service, Glenn County Board of Supervisors, Glenn County Planning Commission
- PSI-16** Update the County's design and development standards to reflect contemporary fire prevention practices and apply those criteria to development permits.
- Implements policies: PSP-16, PSP-17
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Local fire districts, California Department of Forestry, U.S. Forest Service, Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Department
- PSI-17** Enter and/or maintain cooperative fire protection agreements with the cities of Willows and Orland, the California Department of Forestry and U.S. Forest Service.
- Implements policies: PSP-18, PSP-19
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Orland City Council, Willows City Council, Orland Fire Department, Willows Fire Department, California Department of Forestry, U.S. Forest Service
- PSI-18** Refer all building and other development permits for structures in areas subject to potential wildland fires to the California Department of Forestry.
- Implements policies: PSP-15, PSP-20
Priority: 1
Lead Agency: Glenn County Building Department
Coordinating Agency: California Department of Forestry
- PSI-19** Require developers of property to install the necessary water system infrastructure to County standards.
- Implements policy: PSP-21
Priority: 1

Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-20 Amend local ordinances to incorporate the State's fire safety regulations.

Implements policy: PSP-22

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: County Counsel, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-21 Adopt and maintain a countywide house numbering system.

Implements policy: PSP-23

Priority: 1

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Planning Department, Glenn County Building Department

PSI-22 Establish a procedure for assigning house numbers through the building permit process.

Implements policy: PSP-23

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Building Department, Glenn County Public Works Department, Glenn County Board of Supervisors

PSI-23 Develop a program for assigning numbers to existing structures.

Implements policy: PSP-23

Priority: 1

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Planning Department, Local fire districts, Glenn County Board of Supervisors

PSI-24 Adopt a finding when approving discretionary permits that the project adequately provides for and/or does not impede emergency response.

Implements policy: PSP-24

Priority: 1

Lead Agency: Glenn County Planning Department,

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-25 Actively seek funding to develop fire safety public awareness and education programs.

Implements policy: PSP-25

Priority: 2

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Local fire districts

PSI-26 Coordinate with the Glenn County Disaster Council and the Director of Emergency Services to update the *Emergency Response Plan* every five years.

Implements policy: PSP-26

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Disaster Council, Director of Emergency Services, Glenn County Public Works Department

Impact #3.6-2: Property, people, and the environment could potentially be exposed to hazardous materials under the Plan through accidental release or improper storage, use, handling, or transport of these materials.

Conclusion: Risk of chemical exposure is highest with respect to the transport of hazardous materials and hazardous wastes through the County on I-5 and the railroad. There is also risk associated with leaking fuel and chemical storage tanks. Certain commercial and industrial operations involve use, transport, and storage of hazardous materials. These risks can never be fully eliminated, but they can be minimized to a less than significant level by strictly regulating the handling, transport, and storage of these materials and by providing for effective emergency response in the event of a hazardous materials incident.

In May 1991, Glenn County adopted a revised *Hazardous Waste Management Plan* (HWMP) as required under state law promulgated in association with the Tanner Act (AB 2948, Tanner 1986). The HWMP was incorporated into the *Glenn County General Plan* in December, 1991. The HWMP includes guidelines for transporting and storing hazardous wastes. Appendix B to the HWMP fully addresses the handling, storage, and transportation of pesticides in Glenn County. Appendix C describes the County's regulations with respect to underground storage tanks. Appendix D is a copy of a letter mailed to all businesses in the county that handle hazardous materials. This letter includes a hazardous materials inventory form to be filled out by businesses in response to requirements of the Waters Bills mentioned above. Appendix E contains more detailed guidelines for the storage, transportation, and disposal of agricultural pesticides. This information is from the California Code of Regulations, Title 3 (Agriculture), Chapter 6 (Pesticides). Included in Appendix E are emergency response procedures for release of agricultural pesticides. Appendix F is the Glenn County Hazardous Materials Incident Response Plan, first adopted in May 1988. Appendix G of the HWMP provides

information to citizens regarding safe disposal of household hazardous wastes. Appendix I is a series of maps, including a map of potentially contaminated sites in Glenn County.

In effect, all local, State, and federal regulations, guidelines, and procedures governing the handling, storage, and transport of hazardous materials, including a hazardous materials incident response plan and hazardous materials inventories required under the Waters Bills, are incorporated into the Glenn County General Plan via the HWMP. Compliance with all appropriate regulations and *General Plan* policies for transport, storage, and handling of hazardous substances does not necessarily preclude release of chemicals during upset conditions and associated impacts to public health and safety. However, these measures are considered the best available means of reducing the risk to a less than significant level by minimizing the likelihood of an accidental release through safe handling, transport, and storage procedures and by providing for effective emergency response to such an incident.

3.6.3 MITIGATION MEASURES

Although the risk of fires, particularly wildland fires, cannot be mitigated to a less than significant level, adoption of the Plan provisions relating to fire protection, the *Capital Improvements Plan*, and the *Impact Mitigation Fees Program* for fire protection will reduce this impact to the greatest feasible extent. No other mitigation measures are available to further reduce the effect. Incorporation of the HWMP and the Emergency Response Plan and other HWMP-related documents into the *General Plan* that implement State and federal laws, regulations, and guidelines at the county level have reduced the risk of chemical upset to a less than significant level. No additional mitigation measures are required.

3.7 AIR QUALITY

3.7.1 SETTING

Air quality is discussed in Section 3.4 of the *Environmental Setting Technical Paper* and Section 5.0 of the *Public Safety Issue Paper*.

3.7.2 IMPACTS

Impact Evaluation Criteria:

Air quality standards are based on provisions of the federal and State Clean Air Acts. The Glenn County Air Pollution Control District is responsible for the planning and maintenance/attainment of these standards at the local level. Glenn County has been designated as a non-attainment area for ozone and inhalable particulate matter (PM₁₀)¹ by the State. The probable sources of these pollutants include agricultural burning of field crops and orchard waste, cultivating and harvesting of crops, driving on unpaved roads, and transport of pollutants from the Sacramento metropolitan area.

¹ PM₁₀ is inhalable airborne particulate matter. Each particle has a diameter of 10µm (i.e., micrometers or microns – one-millionth of a meter) or less. Larger particles are generally less aerodynamic, and thus less likely to remain airborne where they could become an inhalation hazard.

Pursuant to the California Clean Air Act of 1988, a Draft *Air Quality Attainment Plan* for the Northern Sacramento Valley Air Basin has been adopted (Technical Advisory Committee [TAC] to the Northern Sacramento Valley Air Basin 1991). The Attainment Plan is designed to achieve a reduction in basinwide emissions and proposes control measures to be adopted to achieve mandatory reduction.

Impact #3.7-1: In a non-attainment air basin, any emissions of non-attainment pollutants by new developments are considered to be a significant air quality effect, both directly and cumulatively. Many or most development projects that would be considered under the *General Plan* would potentially result in emissions of ozone, which is associated with vehicular emissions, and PM₁₀, which can potentially be emitted by construction activities, wood-burning appliances, yard burning, and incineration.

Conclusion: Without proper controls, virtually all projects will result in significant emissions of non-attainment pollutants. Plan provisions will reduce emissions, but not to a level that is less than significant, since all emissions of non-attainment pollutants are considered directly and cumulatively significant. The Plan is intended to be compatible with the goals and policies of the local *Air Quality Attainment Plan*. Public Safety Policy 34 and Public Safety Implementation Measure 34 below establish a County policy that requires projects to incorporate all feasible emissions control measures specified in the *Attainment Plan*. The California Clean Air Act requires a five percent annual reduction in non-attainment pollutant emissions. The Attainment Plan states:

The following Plan does not demonstrate a 5% reduction of the pollutant levels as the control efficiencies and cost-effectiveness are not available for many of the proposed control strategies...The Plan does, however, include every feasible control measure (emphasis added).

This excerpt from the *Attainment Plan* acknowledges that compliance with its provisions may not result in achieving the targeted five percent reduction, but it provides the best reduction methods that are feasible to implement. The following Plan policies and implementation strategies reflect and incorporate control measures as well as support land use decisions that will protect and enhance local air quality to the greatest feasible extent.

Policies: It shall be the policy of Glenn County to:

- PSP-33** Support State programs to reduce agricultural burning, including development of alternatives to rice straw burning.
- PSP-34** Review development requests to determine the impact such development will have on the existing air quality and for compliance with the air pollution reduction measures specified in the Glenn County *Air Quality Attainment Plan*.
- PSP-35** Promote jobs/housing balance when evaluating development projects.

PSP-36 Encourage design of new development that minimizes automobile trips and maximizes other modes of transportation.

Implementation Strategies, Programs and Priorities:

PSI-33 Monitor and participate in State efforts to reduce agricultural burning.

Implements policies: PSP-33, NRP-4

Priority: 2

Lead Agency: Glenn County Air Pollution Control District

Coordinating Agency: Glenn County Agricultural Commissioner

PSI-34 Require that a finding be made that development projects are in compliance with the *Air Quality Attainment Plan* prior to approval.

Implements policy: PSP-34

Priority: 1

Lead Agency: Glenn County Planning Department,

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Air Pollution Control District

PSI-35 Require that a finding be made that a proposed development project will make a positive contribution toward maintaining or improving the jobs/housing balance within the county prior to approval.

Implements policy: PSP-35

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-36 Require adoption of "PDR" (Planned Development Residential) or "PDC" (Planned Development Commercial) zoning for any new development of forty acres or more and apply design techniques that integrate uses, including jobs and houses, and minimize automobile traffic while maximizing other forms of travel.

Implements policies: PSP-35, PSP-36

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

3.7.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to the greatest feasible extent by Plan policies and implementation measures. As noted, these policies and

implementation measures would incorporate best available control measures specified in the *Attainment Plan*. These measures will not result in reduction of air quality effects to a less than significant level. However, no further mitigation measures are presently available.

3.8 NOISE

3.8.1 SETTING

Noise is discussed in Section 3.6 of the *Environmental Setting Technical Paper* and Section 8.0 of the *Public Safety Issue Paper*.

3.8.2 IMPACTS

Impact Evaluation Criteria:

State General Plan law requires that noise sources be identified and problems appraised in a noise element. The noise element must recognize the guidelines adopted by the State Department of Health Services, Office of Noise Control, and analyze and quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Railroad operations and ground rapid transit systems
- Commercial and general aviation operations
- Industrial plants
- Other ground stationary sources that contribute to the community noise environment

Appendix G to the *CEQA Guidelines* states that a project will normally have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas. Noise contours must be used as a guide for establishing a pattern of land uses that minimizes the exposure of community residents to excessive noise. The adopted noise element must also serve as a guideline for compliance with the State Noise Insulation Standards (California Code of Regulations, Title 24 and Chapter 35 of the Uniform Building Code [UBC]). These standards are described in Section 6.11 of the *Policy Plan*.

Impact #3.8-1: Virtually any project proposed under the Plan could result in noise generation, at least in the construction phase of the project. Noise levels can be significant, directly or cumulatively.

Conclusion: Without effective controls, noise effects would be significant. Control of noise and its sources is most effectively implemented through the adoption of a local Noise Control Ordinance. Such an ordinance requires support from the general plan noise exposure standards and land use compatibility guidelines. The *Policy Plan* policies, standards, and implementation strategies support the adoption of such an ordinance. A Draft Noise Control Ordinance is included in the *Public Safety Issue Paper*. Assuming adoption of the following *Policy Plan* provisions and a noise ordinance in the near future, noise effects would be reduced to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- PSP-48** Regulate fixed noise sources within the county through the adoption of a local Noise Control Ordinance.
- PSP-49** Allow new development in compliance with the land use compatibility guidelines and noise level standards contained in this *General Plan*.
- PSP-50** Require acoustical analyses for any development proposal that does not meet the recommended noise level standards, subject to the requirements contained in this *General Plan*.
- PSP-51** Require that noise mitigation measures necessary to achieve compliance with land use compatibility guidelines and noise level standards be incorporated into site planning and project design.
- PSP-52** Encourage the separation of noise sensitive uses and high noise generating uses.
- PSP-53** Encourage the use of standard operating procedures for aerial application aircraft as a means of minimizing noise associated impacts to residential development.
- PSP-54** Plan land uses around airports with aircraft noise in mind.
- PSP-55** Maintain CNEL (Community Noise Equivalent Level) lines around the Orland Haigh Field Airport and the Willows Glenn County Airport.

Noise/Land Use Compatibility Guidelines and Noise Level Standards

- New development of noise-sensitive uses shall not be allowed where the noise level due to non-transportation noise sources will exceed the noise level standards specified in Table 3-3 as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve these standards. See Figure 6-1 of the *Policy Plan* for noise contours of known non-transportation noise sources.
- Noise created by new proposed non-transportation noise sources shall be mitigated according to noise level standards of Table 3-3 as measured immediately within the property line of lands designated for noise-sensitive uses. This standard does not apply to mobile noise sources associated with agricultural operations on lands zoned for agricultural uses.
- Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 3-3 at existing or planned noise-sensitive uses, an acoustical analysis meeting the acoustical analysis

requirements stated below shall be required as part of the environmental review process, so that noise mitigation may be included in project design.

- The feasibility of proposed projects with respect to existing and future transportation noise levels shall be evaluated by comparison to Figure 6-2 of the *Policy Plan*. Transportation noise sources are defined as traffic on public roadways, railroad line operations, and aircraft in flight.
- New development of noise-sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources that exceed levels specified in Table 3-4, unless the project design includes effective mitigation measures to reduce noise in outdoor activity areas and interior spaces to the levels specified in Table 3-4. See Figure 6-1 of the *Policy Plan* for noise contours of known transportation noise sources.
- Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated to levels specified in Table 3-4 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.
- Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 3-4 or the performance standards of Table 3-3, an acoustical analysis meeting the requirements specified below shall be required as part of the environmental review process, so that noise mitigation may be included in the project design.
- Where noise mitigation measures are required to achieve the standards of Tables 3-3 and 3-4, the emphasis of such measures shall be placed on site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

REQUIREMENTS FOR AN ACOUSTICAL ANALYSIS

An acoustical analysis prepared pursuant to this *General Plan* shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of L_{dn} or CNEL and/or the standards of Table 3-5 and compare those levels to the

adopted policies of this *General Plan*. Noise prediction methodology shall be consistent with this *General Plan*.

- Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of this *General Plan*. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.
- Describe a post-project assessment program that could be used to evaluate the effectiveness of the proposed mitigation measures.

Implementation Strategies, Programs and Priorities:

PSI-45 Adopt a Noise Control Ordinance.

Implements policies: PSP-48, PSP-51, PSP-52

Priority: 2

Lead Agency: Glenn County Health Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, County Counsel, Glenn County Planning Department

PSI-46 Review development proposals for compliance with the land use compatibility guidelines and noise level standards contained in this *General Plan*.

Implements policies: PSP-49, PSP-50, PSP-51, PSP-52

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Health Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-47 Establish a procedure to require acoustical analyses that meet the requirements contained in this *General Plan*.

Implements policies: PSP-50, PSP-51

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Health Department, Glenn County Building Department, Glenn County Board of Supervisors, Glenn County Planning Department

PSI-48 Enforce the State Noise Insulation Standards (California Code of Regulations, Title 24 and Chapter 35 of the Uniform Building Code (UBC)).

Implements policies: PSP-49, PSP-50, PSP-51

Priority: 1

Lead Agency: Glenn County Building Department

Coordinating Agency: Glenn County Planning Department

PSI-49 Review and update the noise standards contained in this *General Plan* every five years to ensure that noise exposure information and specific policies are consistent with changing conditions within the community and with noise control regulations or policies enacted after the adoption of this Plan.

Implements policies: PSP-48, PSP-49

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-50 Distribute public education materials to the aerial applicators that encourage standard operating procedures for aerial application aircraft such as:

- maintaining minimum altitudes
- standard take-off and landing patterns
- avoiding overflight of densely populated areas

Implements policy: PSP-53

Priority: 2

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Agricultural Commissioner, Glenn County Airport Advisory Committee

PSI-51 Maintain "AV" (Airport) zoning on properties surrounding the Willows Glenn and Orland Haigh Field airports.

Implements policy: PSP-54

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

PSI-52 Refer development proposals on properties located within the established CNEL lines to the Airport Land Use Commission prior to taking an action.

Implements policies: PSP-54, PSP-55

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Public Works Department, Glenn County Airport Advisory Committee

3.8.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.9 LAND USE COMPATIBILITY AND POPULATION

3.9.1 SETTING

Land use and growth are discussed in Sections 4.1 and 4.2 of the *Environmental Setting Technical Paper* and Section 2.0 of the *Community Development Issue Paper*.

3.9.2 IMPACTS

Impact Evaluation Criteria:

General Land Use Issues. The general distribution, location, and extent of land use for housing, business, industry, open space, agriculture, natural resources, recreation, education, public buildings and grounds, solid and liquid waste disposal facilities, and other public and private uses of land are all required components of the land use element under State General Plan Guidelines. Land use classifications must be defined in order to distinguish between levels of intensity and allowable uses. With standards of population density and building intensity established for each of the land use classifications, the general plan is used to guide the physical development and growth of the county. The land use element has the broadest scope of all elements of the general plan and plays the central role of correlating all land use issues into a set of coherent development policies.

Appendix G of the *CEQA Guidelines* states that a project will have a significant effect on the environment if it will:

- conflict with adopted environmental plans and goals of the community where it is located
- induce substantial growth or concentration of population
- disrupt or divide the physical arrangement of an established community

Agricultural Soils and Agricultural Lands. Significance of impacts to agricultural soils can be measured against results of the State Department of Conservation's Farmland Mapping and Monitoring Program. Table 3-1 is an inventory of farmland in Glenn County. Figure 2-3 in the *Environmental Setting Technical Paper* shows the location of important farmland in the county. Essentially, all of the Sacramento Valley portion of the county is considered important farmland, while much of the foothill zone consists of grazing land. Important farmland includes prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and

grazing land. Conversion of prime farmland to other uses is considered a significant impact. The conversion of lands with medium to high potential for timber production and grazing to non-agricultural uses is also significant where such lands exist in parcels of sufficient size to make timber production or range use commercially viable. Thus, fragmentation of agricultural lands is considered a significant impact.

Because agriculture is the most important component of the county's economic base, protection of agricultural land is of great importance. Appendix G of the *CEQA Guidelines* states that a project will have a significant effect on the environment if it will convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land. Land use patterns, goals and policies have been established to promote agricultural land preservation and protect these lands from urban encroachment. It is the intent of the County to direct development away from valuable agricultural lands into urban areas that can accommodate growth and provide adequate public services, including community sewer and water, police and fire protection. To accomplish this, urban limit lines (ULLs) will be established around the cities of Orland and Willows, the unincorporated communities of Hamilton City, Artois, Elk Creek and Butte City, and future planned communities. These lines represent those areas where growth can be accommodated, because full urban services and infrastructure sufficient to serve development is either available now or can be made available.

Local Service Centers. Local service centers include those small rural communities that have developed with residential and commercial uses and function as service centers to surrounding farms and rural areas. Local service centers provide a limited range of goods and services locally and provide housing for persons employed on local farms and in agriculturally related activities. Community sewer and water services do not exist in these communities and are not proposed within the life of this Plan. It is intended that no peripheral expansion will occur in these areas; only infill development will be allowed after case-by-case evaluation. Because new development in these areas would not be supported by a well-established public services infrastructure, such development would constitute an impact on the ability of the County to provide necessary or mandated services. Furthermore, the inability to provide for public water supply and wastewater treatment facilities for new development could lead to adverse water supply and water quality effects. These local service centers include the unincorporated communities of:

- Bayliss
- Blue Gum
- Capay
- Codora Four Corners
- Glenn
- Ord Bend

It is the intent of the County to promote orderly growth by directing new growth into areas where it can be accommodated and served adequately, and to avoid potential land use conflicts through the appropriate distribution and regulation of land uses. Only compatible uses will be encouraged in agricultural areas, which are those uses capable of existing together without conflict or ill effect (i.e., uses that do not adversely affect agricultural uses).

Impact #3.9-1: Development could result in loss of agricultural lands, disruption of agricultural production, and/or permanent commitment of non-renewable agricultural lands and soils to other uses. This would harm the county's economic base.

Conclusion: Urban sprawl and "leapfrog" development often fragment agricultural lands or lead to their conversion to other uses. Any proposed land use that permanently converts agricultural land, and especially prime agricultural land, to non-agricultural use and/or disrupts existing agricultural production or production potential is a significant impact. In this context, it is recognized that one of the County's goals is to expand the dairy industry. Dairy operations can, however, disrupt other agricultural operations in their vicinity. Therefore, policies and standards for siting and performance of dairy operations are also necessary to prevent such potential conflicts. The following policies, standards, and implementation measures in the *Policy Plan* are intended to fully mitigate this impact by encouraging retention of agricultural lands and continuation of agricultural operations to the greatest feasible extent. Assuming these will be adopted, the impact would be less than significant.

Policies: It shall be the policy of Glenn County to:

- NRP-1** Maintain agriculture as a primary, extensive land use, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's contribution to the preservation of open space and wildlife habitat.
- NRP-2** Support the concept that agriculture is a total, functioning system that will suffer when any part of it is subjected to unmitigated land use conflicts and/or excessive land fragmentation.
- NRP-3** Recognize the value of rice lands as waterfowl habitat and for ground water recharge in an effort to preserve such lands and maintain necessary water supplies in Glenn County.
- NRP-4** Support efforts underway to explore the potential to utilize rice lands as temporary storage reservoirs in winter months, thus increasing ground water recharge and supplies of surface water for both agriculture and wildlife, and potentially providing an alternative to rice straw burning.
- NRP-5** Continue participation in the Williamson Act and allow new lands devoted to commercial agriculture and located outside urban limit lines to enter the program, subject to the specific standards for inclusion contained in this *General Plan*.
- NRP-6** Lobby on a continuing basis for maintenance and enhancement of the Williamson Act subvention program in concert with other interested counties and organizations.

- NRP-7** Recognize the importance of the dairy industry, as well as other confined animal agricultural uses, to the agricultural economy by actively supporting efforts to attract new dairies and to expand existing facilities.
- NRP-8** Assure that future land use decisions protect and enhance the dairy and confined animal agricultural industry while also protecting existing uses from potential incompatibilities.
- NRP-9** Encourage use of agricultural lands preservation tools, such as in-county transfer of development rights, conservation easements, exclusive agricultural zoning and continuation of minimum parcel sizes.
- NRP-10** Limit the application of rural residential and similar zoning in the county and follow standards for its application as contained in this *General Plan*, to avoid encouraging premature conversion of otherwise viable agricultural land to rural residential environments that can no longer be farmed and are typically too dispersed to be served efficiently by government services.
- NRP-11** Monitor requests for subdivision of agriculturally developed and zoned parcels located outside urban limit lines to determine if present minimum parcel sizes are working effectively to discourage agricultural lands conversion.
- NRP-12** Review agricultural lands conversion findings as described in NRP-11 with decision-makers annually.
- NRP-13** Establish urban limit lines around existing and planned future communities, development nodes, and other areas of urban use to protect agricultural land and encourage infill and concentric growth.
- NRP-14** Consult Important Farmland Maps and other sources of information on the relative value of agricultural lands when planning areas of growth in order to direct growth and development toward lesser value agricultural lands.
- NRP-15** Recognize that, in order to realistically provide for the necessary diversity and growth required in the local economy, some lands presently committed to agriculture may be consumed by other development activities, and plan for and monitor such conversion to assure that it does not hinder or restrict existing agricultural operations.
- NRP-16** Retain grazing land in large contiguous areas of the foothills in recognition of its value to the livestock industry and as open space and watershed.

- NRP-17** Recognize that limited conversion of grazing lands to other uses may be less harmful to agriculture than conversion of cropland, if the new uses are properly planned and serviced.
- NRP-18** Support the U.S.D.A. Soil Conservation Service effort to update soils survey information in Glenn County.
- NRP-19** Support the programs of the Glenn County Resource Conservation District.
- NRP-20** Recognize the potential restrictions urbanization places on nearby agricultural practices and mitigate such conflicts whenever possible.
- CDP-1** Establish urban-rural interface areas within which all new development shall incorporate a buffer zone to separate the development from surrounding agricultural land. This requirement may be eliminated or modified if there are significant topographical differences, substantial vegetation, or existing physical barriers between urban and rural areas.
- CDP-2** Require that permanent, well-defined buffer areas be provided as part of new non-agricultural development proposals located adjacent to agricultural land uses on Important Farmlands designated as prime, of statewide importance, unique, or of local importance. These buffer areas shall be dedicated in perpetuity, shall be of sufficient size to protect agriculture from the impacts of incompatible development and to mitigate the effects of agricultural operations on adjacent land uses, and shall be credited as open space.
- CDP-3** Use permanent physical features or barriers to separate agricultural from rural or urban uses wherever possible. Such features include rivers, streams, canals, roads, railroads, and topographical features.
- CDP-4** Encourage clustering of residential development when parcels are adjacent to commercial agricultural lands, so as to place dwellings as far as possible from the agricultural land.
- CDP-5** Encourage use of rural residential lot design that allows for the re-subdivision of such lots, particularly when rural residential development occurs in proximity to growing communities.
- CDP-6** Utilize urban limit lines as a method to preserve agricultural land and promote orderly growth in the county.
- CDP-7** Solicit and encourage the voluntary donation of conservation easements or other development restrictions to the County or a qualified private nonprofit corporation to preserve the agricultural use of the land in areas

designated for agricultural use, where subdivision of land would promote incompatible development.

- CDP-8** Provide for the orderly transition of lands within urban limit lines from agricultural to urban use, and encourage and allow agricultural uses to continue until such time as urban development occurs.
- CDP-9** Permit the conversion of agricultural or open land to urban development within urban limit lines to occur only as an extension of the urbanizing area. Urban limit lines shall not be used as justification for leapfrog development.
- CDP-10** Encourage preservation of agricultural lands, including those lands in production and those that are potentially productive.
- CDP-11** Direct nonagricultural development to marginal agricultural lands, avoiding Important Farmlands, wherever feasible alternative sites have been identified.
- CDP-12** Utilize a "Right to Farm" Ordinance as a method to reduce the impacts of potential land use conflicts.
- CDP-13** Require any new agricultural use or application to mitigate anticipated conflicts between proposed new agricultural uses and existing agricultural activities.
- CDP-14** Require environmental review of all applications for residential building permits on undeveloped lots in antiquated subdivisions located in agriculturally designated areas.
- CDP-15** Encourage the merger of lots or the reversion to acreage of lots in antiquated subdivisions in areas where development of the lots is substandard for agricultural purposes, and where development to non-agricultural use would impair surrounding agricultural operations.
- CDP-16** Recognize that due to discrepancies arising from the original land surveys conducted in the State, which resulted in acreage shortages in sections of land, the existence of physical barriers such as canals, roads, streams, levees, et cetera, and parcel configuration, exceptions to minimum parcel size for properties zoned to exclusive agricultural categories may be necessary and appropriate to promote the spirit and intent of the *General Plan*.
- CDP-17** Encourage agricultural water suppliers to make changes in their service requirements to increase the minimum sized parcel to be served in agricultural areas to ten (10) acres and recommend that new parcels

created within water supply district boundaries that are less than ten (10) acres in size be detached from the district(s).

CDP-18 Within the Orland-Artois Water District, approve no zone changes allowing parcels smaller than twenty (20) acres in size, and approve no tentative maps for parcels less than twenty (20) acres in size.

CDP-19 Limit residential uses on agriculturally designated lands to farm-related single-family residences and quarters for farm labor.

STANDARDS FOR WILLIAMSON ACT PARTICIPATION

New applications for Williamson Act Contracts should be accepted by the Glenn County Planning Department when the following conditions are met:

- The property is designated for agricultural or grazing use on the *Land Use Diagram*.
- The property is located outside urban limit lines.
- The parcel is a minimum of eighty (80) acres if located on the valley floor and a minimum of one-hundred sixty (160) acres if located in the foothills.
- The property is used for purposes consistent with the "AP" Agricultural Preserve Zone.

Acceptance of new applications assumes that State subvention payments adequately compensate the County for lost revenues. Without adequate compensation, the Board of Supervisors reserves the right to continue the present moratorium on new applications.

PERFORMANCE STANDARDS FOR DAIRIES

The following performance standards shall be applied to all dairies:

- Notwithstanding any other provision of the *Glenn County Zoning Code*, new construction for a dairy operation shall meet the following minimum setbacks from all County road and/or State highway rights-of-way:
 - Milk Barns: 45 feet from edge of right-of-way.
 - Holding pens, housing barns, manure ponds and animal confinement areas: 100 feet from edge of right-of-way.
 - Exceptions to the setbacks required above may be granted by the County Technical Advisory Committee on written request in the case of new construction at an existing dairy operation.

- Confined animal and manure handling facilities for dairy operations shall be located at least 500 feet from any residence on neighboring parcels in a residential zoning district and 500 feet from any school or high occupancy structures on neighboring parcels in any zoning district.
- The use, storage, and disposal of hazardous materials shall meet all County, State, and federal regulations.
- An encroachment permit shall be required from the Glenn County Public Works Department prior to any work in a County road right-of-way. An encroachment permit shall be required from Caltrans prior to any work in a State highway right-of-way.
- The construction and operation of a dairy shall conform to all applicable State and County codes including but not limited to the following:
 - A building permit shall be secured from the Glenn County Building Department prior to any construction at the site.
 - The Glenn County Health Department shall approve the location and design of all wells and on-site sewage disposal systems.
 - A land-leveling permit shall be applied for and received from the Glenn County Public Works Department prior to the grading of any land where the grading exceeds five acres in area and will result in fills of greater than two feet, a redirection of runoff from the site onto a County road or a change in the entrance or exit of runoff from the parcel. A grading and drainage plan shall accompany all land-leveling permit applications and any inquiries regarding the applicability of this section to the proposed project.
- All trash, discarded materials and animal remains shall be screened from adjacent properties and County and/or State rights-of-way and shall be disposed of according to the applicable codes.
- Animal densities for dairies in agricultural zones shall be regulated by the State of California Central Valley Regional Water Quality Control Board.
- Disposal of manure shall meet State of California Central Valley Regional Water Quality Control Board standards. Verification of submission of an application for a waste discharge permit is required; however, final approval of plans will not be a condition for issuance of a building permit.

- Best management practices shall be applied to the animal confinement, manure ponds, holding and animal housing pens to prevent a nuisance caused by fly and/or mosquito breeding, dust and/or odors.
- Farm labor quarters consisting of one mobilehome or residence meeting the requirements of Section 19.66 of the *Glenn County Zoning Code* shall be permitted upon first securing an administrative permit.
- Farm labor camps (consisting of mobilehomes and/or conventional homes) shall be permitted upon first securing a conditional use permit in the "FA" (Foothill Agriculture), "AP" (Agricultural Preserve), and "AE" (Exclusive Agricultural) zoning districts. Mobilehome parks and farm labor camps consisting of mobilehomes shall also meet the requirements of the State Department of Housing and Community Development Division of Codes and Standards.
- A conditional use permit shall be required for dairies that exceed one cow per 20,000 square feet of area in the "RE" (Rural Residential Estate) zoning district. Dairies in the "RE" district exceeding 30 cows shall be required to obtain a conditional use permit.
- Reactivation of existing dairy facilities shall be permitted in accordance with these performance standards.
- Expansions of existing dairy facilities (including buildings, concrete and covered areas) not exceeding 25 percent need not meet required setbacks.
- Expansions of existing dairy facilities that do not meet the required forty-five foot setback indicated above, or as indicated in the base zoning district, shall be permitted provided that the expansion does not extend farther into the required setback than the existing facility.
- If a dairy is otherwise permitted, but unable to meet these performance standards, a conditional use permit shall be required.
- Prior to the issuance of a building permit for a new dairy, the applicant shall enter into an agreement with the County to improve the existing County maintained road from the main entrance of the dairy to the nearest County road having a paved surface at least 24 feet wide, in accordance with adopted County standards. The maximum length of roadway improved as a result of this paragraph shall not exceed one mile. The cost of any improvements required as a result of this paragraph shall be borne equally by both the dairy owner and the County. The Public Works Director may grant a waiver to the requirements of this paragraph upon receiving a written request from the applicant.

STANDARDS FOR CONVERSION OF LAND FROM AGRICULTURAL AND GRAZING USE

Conversion of agricultural or grazing lands should occur only after careful consideration and deliberation, recognizing, however, that in order to realistically provide for the necessary diversity and growth required in the local economy, some lands presently committed to agriculture may be consumed by other development activities. Further, it is recognized that the limited conversion of grazing lands to other uses may be less harmful to agriculture than conversion of cropland. To achieve the above, the following standards should be applied:

- Lands within existing urban limit lines should be converted prior to lands located outside urban limit lines unless unique circumstances are present. Unique circumstances include the need for lands with ready access to freeway interchanges, railroad sidings, natural gas lines, or uses sufficiently land intensive that parcels of adequate size are not available within urban limit lines. Industrial uses, highway oriented commercial uses, recreational uses and planned communities may fit the above circumstances.
- With the exception of areas already impacted by rural residential development, first consideration should be given to foothill areas for rural residential use if it can be shown that an adequate supply of water can be provided for both domestic and fire suppression purposes; adequate access exists or can be provided; areas of high hazard such as steep slopes and unstable soils will be avoided; watershed values can be protected through adequate application of erosion control measures; unbroken contiguous areas of grazing land are avoided; and an adequate system of mitigation fees is in place to assure that the cost of public agency services is recouped.
- Important Farmland Maps shall be reviewed and information sought from the Soil Conservation Service (SCS) on a case-by-case basis concerning the agricultural value of the site under consideration.
- The biological value of sites should be determined through consultation with wildlife agencies and field surveys. Areas containing documented wetlands, riparian areas or species of special concern habitat should be avoided.
- The presence of Williamson Act properties in the vicinity of the site should be determined and the impact of development on commercial agriculture ascertained. Buffers should be built into properties proposed for development. Buffers can take the form of setbacks to residential, commercial and industrial structures (a minimum of 300 feet is recommended), or recreational/open space areas, such as parks, golf courses and drainage facilities. In addition, clustering of structures on smaller parcels with surrounding common space serving as a buffer should be utilized, wherever feasible.

- Structures constructed in the vicinity of commercial agricultural uses should have sufficient noise attenuation built in to them to avoid complaints of noise from agricultural uses. This should be accomplished through compliance with standards contained in the *General Plan*, including acoustical analyses, where appropriate.
- Agricultural dust conflicts can be partially avoided through separations and orientation (clustering). Areas containing dairies and other animal agricultural uses should be avoided, and separations of at least one-half mile should be maintained between such uses.

APPLICATION OF RURAL RESIDENTIAL AND SIMILAR ZONING STANDARDS

In order to discourage the premature conversion of agricultural land to rural residential use and avoid development patterns too dispersed to be served efficiently by government services, the standards listed immediately above for conversion of agricultural and grazing lands should be applied to requests for rural residential and suburban residential zoning. In addition, the following standards should apply.

- Where development is proposed on the valley floor, areas containing existing rural residential uses should be considered as a first priority and infill encouraged. Infill should include the reduction in minimum parcel size in areas where 5 acre parcels may predominate, but productive usage is limited to smaller portions of sites.
- Areas of high groundwater recharge should be avoided, and existing densities should not be intensified as long as on-site wastewater disposal systems are utilized.
- Around established communities, nodes of rural residential development should be identified as opposed to rings of development. Where rural residential uses are viewed as transitional, convertible lot design features should be incorporated in rural residential development proposals. Convertible lot design features should include special building line setback regulations, irrevocable offers of dedication for future streets, and designation of future lot lines. The purpose of these requirements is to make it possible for rural residential properties to be resubdivided to urban densities at some future date when urban development may be feasible.

Implementation Strategies, Programs and Priorities:

NRI-1 Maintain or adopt intensive agricultural zoning on all privately-owned parcels shown on the *Land Use Diagram* for agricultural use.

Implements policies: NRP-1, NRP-2, NRP-20, NRP-33

Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-2 Maintain minimum parcel sizes in all agricultural zones and review present standards annually to assure their effectiveness.

Implements policies: NRP-1, NRP-2, NRP-33
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-3 Encourage rice growers and cooperatives to emphasize the value of rice land for waterfowl habitat and ground water recharge through promotions and advertisement.

Implements policies: NRP-3, NRP-36
Priority: 1
Lead Agency: Glenn County Agricultural Commissioner
Coordinating Agencies: Glenn County Farm Bureau, Glenn County Agricultural Advisory Committee

NRI-4 Monitor and participate in efforts of State and federal agencies and private conservation groups to find alternatives to rice straw burning, including winter flooding of fields.

Implements policies: NRP-4, NRP-36, PSP-33
Priority: 1
Lead Agency: Glenn County Agricultural Commissioner
Coordinating Agency: Glenn County Air Pollution Control District

NRI-5 Establish a process in the Planning Department allowing for the processing of "AP" zoning requests and Williamson Act contracts once annually, subject to the standards contained in this *General Plan*.

Implements policy: NRP-5
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-6 Utilize the County Agricultural Advisory Committee to lobby on a continuing basis for the maintenance and enhancement of the Williamson Act subvention program, and monitor actions taken at the State and federal level that may impact the county's agricultural resources.

Implements policy: NRP-6

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Assessor, Glenn County Board of Supervisors

- NRI-7** As a part of local economic development efforts, support programs that encourage the siting of new dairies and other confined animal raising operations within the county and facilitate the expansion of existing facilities.

Implements policy: NRP-7

Priority: 2

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Tri-County Economic Development Corporation, Glenn Chamber of Commerce Economic Development, Inc., Glenn County Planning Department

- NRI-8** Apply locational standards for dairies, as contained in this *General Plan*.

Implements policy: NRP-8

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Building Department, Glenn County Public Works Department

- NRI-9** Amend the *Zoning Code* to allow for the transfer of development rights from agricultural areas threatened by development to specified receiving areas located within urban limit lines or other sites designated for development.

Implements policy: NRP-9

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

- NRI-10** Establish a local agricultural preservation program that encourages the use of voluntary conservation easements between private property owners and qualified conservation organizations to protect the county's resources.

Implements policies: NRP-9, CDP-7

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, American Farmland Trust

- NRI-11** Apply new rural residential and similar zoning only in compliance with the standards and *Land Use Diagram* set forth in this *General Plan*.
- Implements policies: NRP-10, NRP-33, CDP-5
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- NRI-12** Prepare an annual report for the local decision-makers that reflects agricultural land conversions and subdivisions.
- Implements policies: NRP-11, NRP-12, NRP-15
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Assessor
- NRI-13** Show urban limit lines on the *Land Use Diagram* around existing and future planned communities and areas of urban use and enforce those lines through appropriate zoning.
- Implements policies: NRP-13, NRP-20, NRP-33, CDP-6, CDP-107, CDP-109, CDP-114
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Local Agency Formation Commission
- NRI-14** Retain the Foothill Agriculture/Forestry Zone in areas of the foothills containing large contiguous areas of grazing land.
- Implements policies: NRP-16, CDP-118
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- NRI-15** Utilize a review process for requests to convert land from agriculture and grazing to other uses that incorporates the standards and procedures contained in this *General Plan*.
- Implements policies: NRP-14, NRP-15, NRP-17, NRP-20, NRP-33, CDP-10, CDP-11, CDP-118
Priority: 1
Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-16 Establish a County notification process for requests to convert land from agricultural and grazing use to wetlands.

Implements Policies: NRP-1, NRP-16

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Assessor, Glenn County Resource Conservation District, State Department of Fish and Game, U.S. Fish and Wildlife Service

NRI-17 Monitor and participate in efforts to update soils survey information in Glenn County and other local programs of the Glenn County Resource Conservation District.

Implements policies: NRP-18, NRP-19

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agency: Glenn County Resource Conservation District

CDI-1 Condition discretionary development permits for new non-agricultural uses proposed adjacent to agricultural lands to provide a buffer zone dedicated as open space.

Implements policies: CDP-1, CDP-2, CDP-3

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-2 Require adoption of "PDR" (Planned Development Residential) zoning for new residential development proposed on parcels located adjacent to land used for commercial agriculture.

Implements policy: CDP-4

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-3 Establish urban limit lines subject to the standards set forth in this *General Plan*.

Implements policy: CDP-6, CDP-23, CDP-107, CDP-109,
CDP-114, NRP-13

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission, Glenn County Local Agency Formation
Commission

- CDI-4** Apply general agricultural zoning to properties within urban limit lines not presently designated for development until a *General Plan* amendment is approved pursuant to the standards set forth in this *General Plan*.

Implements policies: CDP-8, CDP-9, CDP-114

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission

- CDI-5** Apply the provisions of the "Right to Farm" Ordinance to all lands designated for agricultural use and to all lands in proximity to agricultural uses.

Implements policy: CDP-12

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission

- CDI-6** Condition discretionary planning permits to require mitigation measures that will reduce anticipated land use conflicts between the new uses and existing surrounding uses.

Implements policy: CDP-13

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission

- CDI-7** Amend the *Glenn County Environmental Guidelines* to establish a procedure for environmental review of permit applications on lots in antiquated subdivisions, subject to the standards set forth in this *General Plan*.

Implements policy: CDP-14

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agency: Glenn County Board of Supervisors

- CDI-8** Approve requests for the merger of lots or the reversion to acreage of lots in antiquated subdivisions when such requests are in compliance with the provisions set forth in the State Subdivision Map Act.
- Implements policy: CDP-15
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-9** Amend the *Glenn County Zoning Code* to allow for exceptions to minimum parcel sizes in agricultural areas as specified in this *General Plan*.
- Implements policy: CDP-16
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-10** Contact agricultural water suppliers and formally request establishment of a ten (10) acre minimum parcel size for agricultural water service.
- Implements policy: CDP-17
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Water Districts, Irrigation Districts
- CDI-11** Apply zoning to properties located within the Orland-Artois Water District that reflects a minimum parcel size of twenty (20) acres or larger.
- Implements policy: CDP-18
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Orland-Artois Water District
- CDI-12** Establish standards in this *General Plan* for the land use classifications shown on the *Land Use Diagram*.
- Implements policies: CDP-19 through CDP-21, CDP-25 through CDP-40, CDP-46, CDP 47, CDP-74, CDP-76, CDP-138, CDP-147
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-14 Apply zoning that is consistent with the *Land Use Diagram* and the standards set forth in this *General Plan*.

Implements policies: CDP-19, CDP-21, CDP-28, CDP-29, CDP-31 through CDP-37, CDP-40, CDP-43, CDP-44, CDP-47, CDP-48

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-17 Apply a general agriculture designation on the *Land Use Diagram* to land within urban limit lines that is projected for development but that is currently vacant or used agriculturally.

Implements policy: CDP-8

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Impact #3.9-2: Uncontrolled growth and development can result in a number of land use inconsistencies, blight conditions, and conflicts.

Conclusion: If growth and development were allowed to occur without proper regulation, a wide variety of problems could occur, including, but not limited to, blight, loss of wildlife habitat, loss of agricultural lands and production, urban sprawl, transportation gridlock, impacts to public services and facilities (e.g., schools, parks and recreation facilities, fire and police protection, solid waste disposal, water and sewer service), aesthetic damage, unemployment, economic impacts, air and water quality effects. Policies, implementation measures, and standards of the *General Plan* and the land use element in particular are intended to provide for orderly growth and development to prevent these problems. Assuming adoption of the following policies, standards, and implementation measures that are in the *Policy Plan*, growth and land use will be effectively regulated, and impacts related to incompatible land uses would be less than significant.

Policies: It shall be the policy of Glenn County to:

CDP-20 Assure that adequate provision is made in this *General Plan* for all types of uses and establish coherent land use patterns.

CDP-21 Establish standards for population density and building intensity for each land use category identified on the *Land Use Diagram*.

CDP-22 Allow a limited number of new planned communities and include within an existing or establish a new urban limit line for all approved planned communities.

- CDP-23** Allow development nodes along the I-5 corridor at Road 27, Road 33 and Road 39, and establish urban limit lines for all approved developments.
- CDP-24** Discourage development of new planned communities away from established urban centers unless it can be demonstrated that they are self-sufficient and functional.
- CDP-25** Prepare community plans for the unincorporated communities of Artois, Elk Creek, Hamilton City and Butte City that are consistent with this *General Plan*.
- CDP-26** Adopt land use plans for the areas within the Orland and Willows urban limit lines, as recommended by the respective city, and as modified by the County to maintain consistency with this *General Plan*.
- CDP-27** Encourage the cities of Orland and Willows to utilize the County-adopted urban limit lines as planning boundaries for their respective *General Plans*.
- CDP-28** Locate major new residential development in proximity to opportunities for employment.
- CDP-29** Establish distinct land use categories for single-family and multiple-family residential uses.
- CDP-30** Relate decisions concerning land use to the functional classification of nearby roadways.
- CDP-31** Encourage commercial and industrial development in areas where adequate facilities and services exist or where facilities and services can be made available, including areas within incorporated cities, planned communities and along the I-5 corridor. Adequate facilities and services shall include community water and sewer if located within an incorporated city or urban limit line. In other areas, adequacy of sewer and water service shall be as determined by local health standards/regulations.
- CDP-32** Encourage a diverse range of commercial and industrial development, consistent with community plans and the level of service available.
- CDP-33** Prevent the loss of designated industrial land to non-industrial uses.
- CDP-34** Ensure that industrial or commercial development that requires public water, sewer and other urban services is located within an urban limit line.
- CDP-35** Allow resource-dependent industrial uses to locate outside urban limit lines and other areas planned for development when such uses are

dependent on close proximity to resource production lands and are not dependent on an urban level of service.

- CDP-36** Where appropriate, promote development of well-planned and designed industrial parks catering to local businesses as well as outside opportunities.
- CDP-37** Discourage strip commercial development and locate future commercial development in well-designed commercial centers having adequate and controlled access to public roads.
- CDP-38** Allow cottage industries in areas not otherwise designated for commercial and industrial use, subject to review.
- CDP-39** Design commercial and industrial subdivisions and uses to prevent the intrusion of incompatible uses.
- CDP-40** Discourage scattered unplanned urban development.
- CDP-41** Establish a procedure for utilizing development agreements in conjunction with development proposals, and provide for the rezoning of property where development agreements are violated.
- CDP-42** Encourage the clustering of radio and other communication towers exceeding present zoning height requirements in specific locations in order to minimize overall visual impacts and discourage unplanned location of towers.
- CDP-43** Establish a threshold for when to use gross or net acreage to determine minimum parcel size in rural residential zones.
- CDP-44** Discourage urban growth in floodplains, aquifer recharge areas, scenic and historic sites, or other sensitive areas as specified in this *General Plan*.
- CDP-45** Refine existing design review guidelines for application to areas within urban limit lines and establish new and creative design guidelines for development nodes along the I-5 corridor area.
- CDP-46** Require a general plan of development and specific plan for large-scale development proposals, including planned communities and development nodes along the I-5 corridor.
- CDP-47** Reserve adequate sites for new and expanded public facilities needed to serve new growth and development and designate general locations for such facilities, including, but not limited to, schools, solid and liquid

waste disposal facilities, drainage facilities, fire stations, and County government buildings and facilities.

- CDP-48** Consider septic system and septage disposal limitations when determining areas suitable for new development not served by wastewater treatment facilities and assure that density standards allow adequate area for septage disposal.

STANDARDS FOR ESTABLISHMENT OF URBAN LIMIT LINES

To preserve agricultural land and promote orderly growth, the following standards shall be utilized in locating urban limit lines (ULLs):

- ULLs shall be established around the cities of Willows and Orland and the unincorporated communities of Artois, Butte City, Elk Creek and Hamilton City. In addition, ULLs may be established around planned communities and development nodes along the I-5 corridor as described in subsection 6.18.
- To the extent feasible, ULLs shall be coterminous with adopted Spheres of Influence for cities or special districts that provide services to unincorporated communities.
- ULLs shall encompass sufficient area to accommodate growth based on the population forecast for each community or development node established in the *General Plan*, the existing and anticipated 20-year service delivery capability for the city or special district, and a reasonable flexibility factor to allow for sufficient choice, recognizing that some property owners may choose to continue to farm their land.
- Where possible, ULLs shall follow roads, railroads, water courses or other physical boundaries.
- To provide for consistency in applying development standards, ULLs shall follow parcel lines, and when ULLs follow roadways, the entire right-of-way shall be included within the ULL.

STANDARDS FOR AMENDMENT OF URBAN LIMIT LINES

The following standards shall be utilized when considering individual requests for amendment to established urban limit lines (ULLs):

- An application for amendment to the *Glenn County General Plan* is filed pursuant to established procedures.
- The amendment is necessary to accommodate the growth of the affected city, community, or development node.

- Plans for development of the property to be included within the ULL are submitted with the amendment application.
- The nature of the development proposed is such that it will benefit from the urban services that can be provided within ULLs.
- Amendment of the ULL will provide for the orderly development of the affected city, community or development node.

STANDARDS FOR CONVERSION OF LAND WITHIN URBAN LIMIT LINES

Land located within ULLs that is designated for general agriculture shall be placed in an exclusive agricultural zone until such time as conversion is appropriate. Conversion shall be considered appropriate when the following standards are met:

- The property is contiguous on at least one side to existing development.
- Full urban services and infrastructure sufficient to serve urban development are either available or can be made available.
- Non-agricultural land suitable for like development is not available in near proximity, and the conversion of the property is necessary to meet growth demands of the community.

STANDARDS FOR REQUIRING ENVIRONMENTAL REVIEW FOR PERMITS ON LOTS IN ANTIQUATED SUBDIVISIONS

Environmental review, pursuant to the *Environmental Guidelines of Glenn County*, shall be required for development proposals on lots in antiquated subdivisions when the following conditions exist:

- The parcel is located in the unincorporated area of the county, outside any urban limit line.
- The parcel was created prior to the enactment of a local subdivision ordinance and the 1970 California Environmental Quality Act (CEQA).
- The parcel is undeveloped—i.e., it is used for agriculture or open space purposes.
- The parcel is zoned "FA" (Foothill Agricultural/Forestry), "AP" (Agricultural Preserve), or "AE" (Exclusive Agricultural).

- The parcel contains less than the minimum acreage specified in the applicable zone.

For purposes of this section, development proposals shall be defined as all applications for a residential building permit. The granting of such permits for lots located within such antiquated subdivisions shall be viewed as a discretionary project for the purposes enumerated above.

STANDARDS FOR ESTABLISHING NEW PLANNED COMMUNITIES AND DEVELOPMENT NODES ALONG THE I-5 CORRIDOR

The potential exists for new areas to be developed under the *General Plan* at key interchanges along I-5, as well as in other locations, following future *General Plan* amendments. New planned communities and development nodes shall be permitted within the unincorporated area of the county subject to the following standards:

- A general plan of development shall be submitted and approved.
- A specific plan shall be approved by the Board of Supervisors for each new planned community.
- An urban limit line shall be established for each new planned community and development node. To the extent they are applicable, the standards listed above for establishing urban limit lines shall apply when establishing urban limit lines.
- A development agreement shall be executed for all parcels within the new planned community or development node.
- Any new planned community or development within a development node shall provide for public services consistent with the performance criteria established in this *General Plan* for services within urban limit lines.
- Any new planned community or development within a development node shall be responsible for constructing and/or paying for on-site and off-site capital improvements necessary to serve the development.
- The establishment of a new planned community or development within a development node shall not result in the short-term or long-term reduction in the level of public services provided to existing development.

Implementation Strategies, Programs and Priorities:

- CDI-12** Establish standards in this *General Plan* for the land use classifications shown on the *Land Use Diagram*.

Implements policies: CDP-19 through CDP-21, CDP-25 through CDP-40, CDP-46, CDP 47, CDP-74, CDP-76, CDP-138, CDP-147

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-13 Prepare and adopt a *Land Use Diagram* that is consistent with the goals and policies of this *General Plan*.

Implements policies: CDP-28 through CDP-32, CDP-34, CDP-37, CDP-40, CDP-44, CDP-47, CDP-48, CDP-74, CDP-76

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-14 Apply zoning that is consistent with the *Land Use Diagram* and the standards set forth in this *General Plan*.

Implements policies: CDP-19, CDP-21, CDP-28, CDP-29, CDP-31 through CDP-37, CDP-40, CDP-43, CDP-44, CDP-47, CDP-48

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-15 Approve the development of new planned communities consistent with the standards set forth in this *General Plan*.

Implements policies: CDP-22 through CDP-24, CDP-46

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-16 As circumstances warrant, undertake more in-depth planning studies of recognized communities.

Implements policies: CDP-25, CDP-26

Priority: 2 and 3

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-18 Modify local procedures to provide for the use of development agreements in conjunction with development approvals, including a provision requiring rezoning if the development agreement is violated.

Implements policy: CDP-41

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-19 On lots ten (10) acres or greater in size, allow cottage industries subject to issuance of an administrative permit; on lots less than ten (10) acres in size, allow cottage industries subject to issuance of a conditional use permit under the *Glenn County Zoning Code*.

Implements policy: CDP-38

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Public Works Department, Glenn County Health Department, Glenn County Planning Commission, Glenn County Board of Supervisors

CDI-20 Identify areas within the county where it is desirable to locate radio and other communication towers and establish a permit procedure for such uses.

Implements policy: CDP-42

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-21 Amend the *Glenn County Zoning Code* to include a threshold for use of gross or net acreage when determining minimum parcel sizes in rural residential zones.

Implements policy: CDP-43

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-22 Apply design review guidelines to development proposals located within urban limit lines and development nodes along the I-5 corridor.

Implements policies: CDP-37, CDP-39, CDP-45, CDP-46

Priority: 2

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-23 Establish a city/county consultation and review process for development proposals located within urban limit lines.

Implements policies: CDP-27, CDP-49 through CDP-51

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Cities of Willows and Orland, Glenn County Public Works Department, Glenn County Health Department

CDI-25 Apply "M" (Industrial) zoning on all land designated for industrial use on the *Land Use Diagram* and enforce the regulations of the "M" classification to prevent the intrusion of nonindustrial uses into industrial areas.

Implements policy: CDP-33

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Impact #3.9-3: Land use incompatibilities and uncontrolled growth could occur if there is an absence of explicit communication and coordination in land use policy among the County and the municipalities in the county.

Conclusion: Significant impacts could occur in terms of land use inconsistencies and provision of adequate public services in the absence of effective controls to ensure that County land use policy and planning are consistent with policy and land use planning in Orland and Willows. The following *Policy Plan* policies and implementation measures are designed to effect coordination of land use policies in Glenn County at all levels of government. Assuming their adoption, impacts related to incompatible land uses that arise from lack of coordination among jurisdictions would be less than significant.

Policies: It shall be the policy of Glenn County to:

CDP-49 Provide an orderly framework for communication and coordination among the County and the cities of Willows and Orland regarding development, public services and improvements.

CDP-50 Afford the cities of Orland and Willows the opportunity to review and comment on matters within their adopted urban limit lines and consider their recommendations in rendering land use decisions.

- CDP-51** Encourage urban development proximate to incorporated cities to occur within incorporated cities first and within urban limit lines of incorporated cities upon satisfaction of all of the following:
- (a) The city will not consent to annex or annexation is not possible under State law
 - (b) Public service impacts of development are within service capabilities of the County and affected special districts
 - (c) The use and density is consistent with the County's *General Plan* and compatible with the appropriate city's *General Plan*.
- CDP-52** Seek equitable tax-sharing agreements for proposed annexations that address property tax, sales tax and (when applicable) redevelopment funds, in exchange for directing new urban development to incorporated cities.

Implementation Strategies, Programs and Priorities:

- CDI-23** Establish a city/county consultation and review process for development proposals located within urban limit lines.
- Implements policies: CDP-27, CDP-49 through CDP-51
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Cities of Willows and Orland, Glenn County Public Works Department, Glenn County Health Department
- CDI-24** Develop a formal written strategy for use in future tax-sharing negotiations for annexations that addresses sales tax and (when applicable) redevelopment funds, as well as property taxes.
- Implements policy: CDP-52
 Priority: 2
 Lead Agency: Glenn County Board of Supervisors
 Coordinating Agency: County Counsel

3.9.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.10 TRANSPORTATION/CIRCULATION

3.10.1 SETTING

Transportation and circulation are discussed in Section 4.3 of the *Environmental Setting Technical Paper* and Section 3.0 of the *Community Development Issue Paper*.

3.10.2 IMPACTS

Impact Evaluation Criteria:

Transportation and circulation needs are closely tied to the location and distribution of land uses. Section 65302(b) of the Government Code requires that a circulation element must be included in a general plan. The circulation element must address the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element.

No major increases in traffic levels on roadways within Glenn County are expected. The growth in traffic generally will be in relationship to population growth, which countywide, is forecast to be three percent per year. A functional classification system was developed to conform with forecast traffic levels during the planning period. For road sections on State highways, growth rates were used consistent with forecasts in *Route Concept Reports* prepared by Caltrans. For other road sections, growth rates were based on estimates of overall population growth and the distribution of this growth.

A separate five-level functional classification system has been established for areas within and outside urban areas, as follows: Principal Arterial, Minor Arterial, Major Collector, Minor Collector, and Local Street. These classifications are the same as those used in the *Regional Transportation Plan* (RTP), since the *General Plan* and RTP are required to be mutually compatible. The functional classifications have been tied directly to forecast volume and the nature of trip generators served, such as the population of urban centers, recreational centers, public facilities, industrial and commercial developments, intercounty connections, and transportation terminals.

Appendix G of the *CEQA Guidelines* states that a project will have a significant effect on the environment if it will cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.

The standard used to evaluate the functioning of roadways is level of service (LOS). LOS measures operating conditions at an intersection or along a roadway segment in relation to traffic volume. LOS ranges from "A" to "F," with LOS A reflecting free traffic flow with few, if any, delays, while LOS F represents nearly total circulation gridlock for that intersection or roadway segment.

Impact #3.10-1: Development could occur under the Plan that would affect the development and maintenance of an efficient and effective roadway system.

Conclusion: As growth and development progress in Glenn County, increasing pressure on the roadway system could result in both direct and cumulative impacts to LOS at various intersections and road segments. Also, some developments, such as shopping centers or poorly located residential developments, can result in indirect traffic effects, since they could encourage the use of automobiles and/or fail to provide for alternative means of transportation. Cumulative traffic effects are common, and have not always been properly identified, planned for, and mitigated. Cumulative effects occur when a number of projects are approved, each of which may result in traffic effects that are not particularly

significant individually, but which result in severe impacts to LOS cumulatively over a period of time as the projects near buildout. The following *Policy Plan* provisions are designed to prevent or reduce these effects to a less than significant level. Furthermore, *General Plan* provisions relating to transportation have been explicitly designed to be compatible with the RTP. Therefore, implementation of the following Plan policies, standards, and implementation measures will simultaneously assure that the County's transportation policy is significantly compatible with implementation of the RTP.

Policies: It shall be the policy of Glenn County to:

- CDP-53** Support actions at the local level that assure roadways are adequate to accommodate present and future traffic.
- CDP-54** Encourage actions at the State level that support local needs for road improvements.
- CDP-55** Establish a minimum level of service for local roadways.
- CDP-56** Determine the impact proposed development will have on the local road system and assure that the established level of service is maintained.
- CDP-57** Require new development to pay its fair share for the improvement of roadways.
- CDP-58** Establish and maintain a functional classification system that identifies the 20-year function and lane requirements for the County road system.
- CDP-59** Limit access to Principal Arterial streets consistent with their primary function as carriers of through traffic.
- CDP-60** Utilize a road improvement project priority system based on facility condition and usage characteristics.

ROADWAY LEVEL OF SERVICE STANDARDS

Level of Service C shall be the standard for road segments and signalized intersections within the county. Exceptions to this standard where Level of Service D or E is forecast shall be granted only where it can be demonstrated that topography, environmental impacts, or other significant factors make the implementation of mitigation measures impractical. Level of Service F shall be unacceptable under all conditions.

ROAD DESIGN STANDARDS

For new construction or projects that upgrade geometric features, the following road design standards shall apply:

Design Hourly Volume	Traveled Way (ft.)	Paved Shoulder Each Side (ft.)	Total Roadbed Width (ft.)
100-200 vehicles/hour	22	6	34
Over 200 vehicles/hour	24	8	40

For roads on an approved bike plan, additional paved shoulder should be added so that the standard for a Type II bicycle facility is met.

Roadbed design should be reviewed on a case-by-case basis because of the significant variation in soil conditions within the county. In general, poor drainage of soils in the southern portions of the county create additional costs for roadbed construction.

Implementation Strategies, Programs and Priorities:

CDI-26 Implement and maintain a pavement management system to protect the investment in existing roads.

Implements policies: CDP-53, CDP-61
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-27 Undertake necessary improvements to reduce the potential for flooding of existing arterials and collectors.

Implements policies: CDP-53, CDP-61, CDP-62
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-29 Consider adoption of truck routes to minimize traffic impacts in the vicinity of urban development and reduce road maintenance costs.

Implements policies: CDP-53, CDP-61
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-30 Install appropriate traffic control devices as conditions warrant, including traffic signals and stop signs.

Implements policies: CDP-53, CDP-61
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

- CDI-31** Install left-turn lanes where conditions warrant.
- Implements policies: CDP-53, CDP-61
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-32** Monitor accident records to identify high-accident locations and to recommend appropriate mitigation measures.
- Implements policies: CDP-53, CDP-61, CDP-62
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-33** Work with Caltrans to assure a high level of maintenance for Interstate 5.
- Implements policy: CDP-54
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-34** Implement level of service standards, as contained in this *General Plan*.
- Implements policy: CDP-55
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
- CDI-35** Require appropriate traffic studies as a part of development project review and approval.
- Implements policy: CDP-56
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-36** Establish developer impact fees and apply them to development permits.
- Implements policy: CDP-57
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, Glenn County Planning Commission

- CDI-37** Adopt and utilize the functional classification system outlined in this *General Plan*.
- Implements policy: CDP-58
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-38** Implement driveway access standards as outlined in this *General Plan*.
- Implements policy: CDP-59
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Planning Department
- CDI-39** Develop a road improvement project priority system based on facility condition and usage characteristics.
- Implements policies: CDP-53, CDP-60, CDP-75, CDP-76
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-43** Request Caltrans and the U.S. Forest Service to participate in the upgrading of Forest Highway 7 as funds become available.
- Implements policies: CDP-54, CDP-71
 Priority: 2
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors

Impact #3.10-2: As growth occurs and traffic increases, the potential for traffic safety to be compromised increases.

Conclusion: Direct and cumulative traffic effects can proportionally increase potential traffic hazards. Since the potential for increased traffic is significant, it is assumed that the effects on traffic safety are potentially equally significant. The following *Policy Plan* provisions are designed to reduce these safety effects to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- CDP-61** Support the improvement of all State and local roads to adopted design standards.
- CDP-62** Support the implementation of improved safety measures for at-grade rail crossings.

Implementation Strategies, Programs and Priorities:

- CDI-26** Implement and maintain a pavement management system to protect the investment in existing roads.
- Implements policies: CDP-53, CDP-61
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-27** Undertake necessary improvements to reduce the potential for flooding of existing arterials and collectors.
- Implements policies: CDP-53, CDP-61, CDP-62
 Priority: 1, 2, and 3
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-28** Establish different road base standards for the northern and southern sections of the county that reflect differing soil conditions.
- Implements policy: CDP-61
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
- CDI-29** Consider adoption of truck routes to minimize traffic impacts in the vicinity of urban development and reduce road maintenance costs.
- Implements policies: CDP-53, CDP-61
 Priority: 1
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-30** Install appropriate traffic control devices as conditions warrant, including traffic signals and stop signs.
- Implements policies: CDP-53, CDP-61
 Priority: 1, 2, and 3
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-31** Install left-turn lanes where conditions warrant.
- Implements policies: CDP-53, CDP-61

Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-32 Monitor accident records to identify high-accident locations and recommend appropriate mitigation measures.

Implements policies: CDP-53, CDP-61, CDP-62
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

Impact #3.10-3: Growth under the Plan will impact the roadway system and transportation in general. This will make it increasingly difficult for public agencies to fund necessary expansion and improvement of the transportation system to accommodate growth and maintain roadway safety standards.

Conclusion: Along with significant growth-induced impacts to the roadway system will come direct and cumulative growth-induced demand for funds to make necessary roadway and transportation system improvements to ensure roadway safety standards and levels of service are maintained. The following *Policy Plan* provisions are intended to provide for increased transportation funding proportional to growth in the county and the need for roadway and other transportation improvements. Additionally, the County will soon adopt a *Capital Improvements Plan* to identify funding needs and an *Impact Mitigation Fees Program* to identify funding sources for the traffic/circulation system. Assuming adoption of the following *Policy Plan* provisions and the *Capital Improvements Plan* and *Impact Mitigation Fees Program* for transportation, the fiscal impact of growth and development on transportation will be less than significant.

Policies: It shall be the policy of Glenn County to:

CDP-63 Utilize transportation funds from State and federal sources to address transportation needs.

CDP-64 Support the development of assessment districts to upgrade existing roads to adopted design standards where safety hazards are identified.

Implementation Strategies, Programs and Priorities:

CDI-40 Obtain the County's fair share of formula and discretionary transportation funds from State and federal sources.

Implements policy: CDP-63
Priority: 1, 2, and 3
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Board of Supervisors, Caltrans

CDI-41 Undertake studies to determine where use of road improvement assessment districts may be most feasible.

Implements policy: CDP-64

Priority: 2

Lead Agency: Glenn County Public Works Department

Coordinating Agency: Glenn County Planning Department

Impact #3.10-4: As growth proceeds under the Plan, transportation can become increasingly affected should there be a lack of coordinated effort among various public agencies and jurisdictions and consistency among the RTP, County and city general plans, specific plans, community plans, et cetera.

Conclusion: Direct and cumulative transportation effects would occur if local and regional general plans, community plans, redevelopment plans, and other policy mechanisms are not mutually consistent and compatible with respect to regional transportation impacts and the RTP. It is particularly critical that potential cumulative transportation effects of projects are considered, not only locally, but regionally among the various jurisdictions likely to be affected. Assuming adoption of the following *Policy Plan* provisions, this impact would be reduced to a less than significant level.

Policies: It shall be the policy of Glenn County to:

CDP-65 Support the Social Services Transportation Advisory Council.

CDP-66 Support the efforts of the Glenn County Transportation Commission to update the *Regional Transportation Plan* every 10 years and incorporate changes every two years.

CDP-67 Coordinate development of major transportation corridors with adjacent counties.

CDP-68 Coordinate development of County roads within urban limit lines with adjacent cities.

CDP-69 Coordinate the development of transportation plans with private operators and transportation users.

CDP-70 Support the involvement of the general public in all phases of transportation planning and programming.

Implementation Strategies, Programs and Priorities:

CDI-42 Appoint a coordinator within the Public Works Department to assure that other agency and public involvement is routinely sought prior to actions at the local level.

Implements policies: CDP-65 through CDP-70
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agency: Glenn County Public Works Department

Impact #3.10-5: Growth under the Plan could hinder economic development if the transportation system is not expanded and upgraded proportional with growth and development.

Conclusion: Failure to provide for expansion of the roadway and transportation system to accommodate growth can directly and cumulatively affect economic growth by failing to provide businesses with the necessary transportation facilities to serve their work forces, logistically support their operations, and efficiently reach their markets. The following *Policy Plan* provisions will reduce this impact to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- CDP-71** Support the rehabilitation and widening of Forest Highway 7 to two travel lanes west from Highway 162 into Mendocino County.
- CDP-72** Emphasize aviation-related uses at the two County airports (Willows Glenn County Airport and Orland Haigh Field Airport).
- CDP-73** Support continued operation and expansion, where feasible, of existing private rail and bus transportation.
- CDP-74** Reserve for commercial/industrial development land with transportation advantages, including access to freeway interchanges and rail services, where consistent with other *General Plan* policies.
- CDP-75** Give consideration to farm-to-market transportation when prioritizing road improvements.
- CDP-76** Recognize that transportation and land use are closely linked and that transportation system decisions must be consistent with local land use planning and decision-making.

Implementation Strategies, Programs and Priorities:

- CDI-39** Develop a road improvement project priority system based on facility condition and usage characteristics.

Implements policies: CDP-53, CDP-60, CDP-75, CDP-76
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

- CDI-43** Request Caltrans and the U.S. Forest Service to participate in the upgrading of Forest Highway 7 as funds become available.
- Implements policies: CDP-54, CDP-71
 Priority: 2
 Lead Agency: Glenn County Public Works Department
 Coordinating Agency: Glenn County Board of Supervisors
- CDI-44** Assure that the County's economic development strategy and airport master plans emphasize aviation-related uses.
- Implements policy: CDP-72
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation
- CDI-45** Assure that the County's economic development strategy provides a basis for continued operation and expansion of private rail and bus operations.
- Implements policy: CDP-73
 Priority: 1
 Lead Agency: Glenn County Planning Department
 Coordinating Agencies: Glenn County Board of Supervisors, Glenn Chamber of Commerce Economic Development, Inc., Tri-County Economic Development Corporation

Impact #3.10-6: Without expansion of transportation modes that provide alternatives to the private automobile, traffic and air quality impacts will intensify as growth occurs under the Plan.

Conclusion: Traffic effects would be directly and cumulative significant in the absence of alternative transportation, including public mass transportation. These effects will be less than significant when the following *Policy Plan* policies, standards, and implementation measures are adopted. Note that *Policy Plan* provisions listed under Impact #3.10-5 above provide for expansion of bus, rail, and aviation services to the county.

Policies: It shall be the policy of Glenn County to:

- CDP-77** Serve as a focus for public transit planning and operations.
- CDP-78** Utilize cost-efficiency guidelines in making decisions about new or existing public transit services.
- CDP-79** Support improvements in specialized transportation services provided by public and private non-profit corporations, with adequate coordination among other providers.

- CDP-80** Support conducting a detailed feasibility study of fixed-route service between Orland and Chico as soon as possible, and between Orland and Willows within five years.
- CDP-81** Utilize a countywide bicycle plan that identifies long-range needs for routes and facilities to serve commuters and recreational riders.

BICYCLE FACILITY STANDARDS

The following bicycle facility standards shall be utilized in designing bicycle facilities in locations specified on an approved Bicycle Plan.

Class I Bikeway: Two-way facility with exclusive right-of-way with crossings by motorists minimized. Minimum paved width shall be eight (8) feet with a minimum two (2) foot graded area on each side. The facility shall have a minimum horizontal clearance of two (2) feet and a minimum vertical clearance of eight (8) feet. A wide separation between bike paths and adjacent highways is recommended, and bike paths closer than five (5) feet shall include a physical barrier preventing bicyclists from encroaching onto the highway.

Class II Bikeway: One-way facility designated by the use of striping (six inches solid white strip) and pavement markings. Minimum width of bike lane is as follows: four (4) feet where there is no curb or parking; three (3) feet where there is a curb and no parking; five (5) feet where there is striped parking; twelve (12) feet where there is unstriped parking with a vertical curb; and eleven (11) feet where there is unstriped parking with a rolled curb. Raised barriers shall not be used to delineate bike lanes.

Class III Bikeway: Shared facilities with either motorists or pedestrians where bicycle use is secondary. No surface markings are required, and there are no minimum widths designated. Designation generally should include features to promote bicycle usage, such as removing parking, correcting surface irregularities, and a high level of maintenance. Sidewalks should only be used under special circumstances.

PUBLIC TRANSIT SERVICE STANDARDS

The following standards shall guide the implementation of new public transit service and evaluation of existing services:

- °Population in Service Area: Minimum 50 percent of county population.
- °Cost per one-way passenger trip: \$3.50 (1991 costs) for demand-responsive service, and \$5.00 for fixed-route service. These cost standards should be reevaluated annually.
- °Farebox Recovery Ratio: 20 percent systemwide, 10 percent fixed-route after six months of operation.

Implementation Strategies, Programs and Priorities:

- CDI-46** Provide a high profile for public transit related activities in the County Public Works Department.
- Implements policy: CDP-77
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors
- CDI-47** Develop cost-efficiency guidelines for use when making decisions about new and existing public transit services.
- Implements policies: CDP-78, CDP-79
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Transportation Commission
- CDI-48** Budget for and undertake a detailed feasibility study of fixed-route service between Orland and Chico, and between Orland and Willows.
- Implements policy: CDP-79, CDP-80
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Transportation Commission
- CDI-49** Undertake specific studies leading to a detailed countywide bicycle plan and adopt the study recommendations as a part of the *General Plan* when they are completed.
- Implements policy: CDP-81
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Transportation Commission

3.10.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.11 HOUSING

3.11.1 SETTING

Housing is discussed in Section 4.4 of the *Environmental Setting Technical Paper* and Section 4.0 of the *Community Development Issue Paper*.

3.11.2 IMPACTS

Impact Evaluation Criteria:

It is the State of California's goal to provide adequate housing to all residents of California. The thrust of this housing section is to comply with the housing requirements of both the State and the Tri-County Planning Council as appropriate staff levels and funding resources become available to the County. By identifying local housing needs, adopting appropriate goals and policies, and providing local legislation and programs to meet these needs, the County may be more effective in addressing the housing needs of its residents.

Government Code Section 65583 requires a general plan housing element to include four basic components:

- A review of the previous housing element's goals, policies, programs and objectives to ascertain the effectiveness of each factor and the overall effectiveness of the element.
- An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. This assessment can be found in the *Environmental Setting Technical Paper* (Section 4.4) and the *Community Development Issue Paper* (Section 4.0).
- A statement of the County's goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing. These policy statements are in the *Policy Plan* and are presented below as appropriate. The quantified objectives are summarized below in Table 3-2.
- A program that sets forth a five-year schedule of actions the County is taking or intends to undertake to implement the policies and achieve the goals and objectives through the administration of land use and development controls, provision of regulatory concessions, and the use of appropriate State and federal financing and subsidy programs when available.

State law requires that housing policy spans a specified time frame. While the *Glenn County General Plan* will span the planning period 1992-2012, the housing element, by law, will cover the period 1992-1997 and must be comprehensively updated in 1997.

It shall be considered a significant impact if the County fails to: provide safe, affordable housing for all current and future households residing in the county; provide reasonable housing choices; maintain high quality standards and energy efficiency standards for housing stock; correct existing blight conditions; provide housing opportunities for all income levels and special needs groups (i.e., elderly, large families, families with female head of household, farm workers, disabled, homeless).

Impact #3.11-1: Growth and development under the Plan could affect the availability of safe, affordable housing for all households residing in unincorporated Glenn County.

Conclusion: Without proper controls on growth and development, this effect could **be directly and cumulatively significant**. **Adoption of the following *Policy Plan* provisions will reduce the effect to a less than significant level.**

Policies: It shall be the policy of Glenn County to:

- CDP-82** Advocate and support proposed State and federal actions that will create a positive, stable climate for housing production.
- CDP-83** Wherever appropriate, facilitate the use of federal or State programs that can assist in development of new housing consistent with identified countywide housing needs and adopted local plans and programs.
- CDP-84** Support efforts that coordinate and improve the ability of the housing delivery system to effectively respond to local housing needs.
- CDP-85** Encourage and participate in efforts to achieve economies and efficiencies that will facilitate production of quality affordable housing.
- CDP-86** Promote balanced, orderly growth to minimize unnecessary development costs that add to the cost of housing.

Quantified Objective:

- CDO-1** Construct 661 dwellings by 1997 (to include 139 dwellings for very-low income category, 108 dwellings for low-income category, 139 dwellings for moderate income category and 275 dwellings for above-moderate income category), which equals Glenn County's regional share.

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

- CDI-54** Investigate formation of a Redevelopment Agency and adoption of redevelopment plans for blighted areas of unincorporated communities that will address their critical housing needs.

Implements policies: CDP-83, CDP-84, CDP-91, CDP-92, CDP-94, CDP-96, CDP-98, CDP-103

Priority: 2

Lead Agency: Glenn County Planning Department

Year: 1994-1997

Coordinating Agencies: Glenn County Community Services Department; Glenn County Redevelopment Agency, County Board of Supervisors, Glenn County Planning Commission, County Counsel

Funding Source: Redevelopment funds

CDI-55 Allocate a portion of any future redevelopment housing set-aside funds for the purchase of sites for low- and moderate-income housing, to be land-banked or used for the development of assisted housing.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104
Priority/Year: Upon adoption of redevelopment plans
Lead Agency: Glenn County Redevelopment Agency
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
Funding Source: Redevelopment funds

CDI-58 Work with and assist those developers who are willing to provide low-and moderate-income housing by taking all necessary and proper actions to expedite processing and approvals for such projects, such as prompt completion of staff reports and scheduling of hearings, providing needed information, and assistance with the application process for State and/or federal housing assistance programs. Through communication and correspondence with legislators, support State and federal actions that create a positive, stable climate for housing production.

Implements policies: CDP-82, CDP-83, CDP-84, CDP-87, CDP-91
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Redevelopment Agency, Glenn County Community Services Department
Funding Source: General fund, redevelopment funds

CDI-61 Implement the density bonus requirements in State law. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25 percent and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

- 20% of the units for lower-income households; or
- 10% of the units for very low-income households; or
- 50% of the units for senior citizens.

Implements policies: CDP-84, CDP-87, CDP-91, CDP-105
Priority: 1
Year: 1993
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
Funding Source: General fund

CDI-62 Continue to investigate ways to encourage urban infill. Current development policies are analyzed in this *General Plan* update and

programs formulated for providing incentives, such as permitting higher densities under certain conditions, permitting mixed uses in certain locations, expediting processing of site plans, redevelopment, et cetera.

Implements policies: CDP-86, CDP-87, CDP-89, CDP-91, CDP-96, CDP-97

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-66 Encourage developers to make application for Farmers Home Administration (FmHA) 502 Interest Subsidy programs and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-67 Encourage developers to make application for FmHA 515 loans to subsidize the construction of rental housing for low- and moderate-income families and elderly persons, and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals of such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-68 Make application to the State of California to fund housing under the HCD Farm Worker Housing Grant Program (FWHG) for low-income agricultural worker renters and owners and the Office of Migrant Services (OMS) grant for temporary housing and support services to migrant families.

Implements policies: CDP-83, CDP-103, CDP-104

Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: State Department of Housing and Community Development

CDI-69 Encourage developers to make application for the Rental Housing Construction Program (RHCP), which provides low interest, deferred payment loans for new construction of rental units affordable to low-income households. Work with and assist those developers, and take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
Funding Source: California Housing Finance Agency

CDI-70 Make application, or encourage nonprofit sponsors to make application, for FmHA 514/516 allocations for rentals that provide a combination of grants and loans to finance the construction of Migrant Farm Worker Rental Housing.

Implements policies: CDP-83, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-71 Construct or work with special districts to assure the construction of necessary infrastructure to allow for construction of all housing types, including higher-density multi-family housing. Assistance to special districts shall include provision for needed capital projects in the County's *Capital Improvements Plan*, provision of technical assistance with applications for State and/or federal funding, and assistance with required fee studies for implementation of mitigation fees for capital facilities.

Implements policies: CDP-84, CDP-86, CDP-89, CDP-97
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

Funding Source: Special assessments, user fees, redevelopment funds, CDBG funds

CDI-73 Continue to review innovations and cost-saving materials and techniques that will provide the same quality construction at a lower cost to the consumer. Provide annual progress reports to the local chapter of the Building Industry Association and make them available to the public at the Building Department counter.

Implements policies: CDP-84, CDP-85, CDP-105

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Building Department

Coordinating Agency: Glenn County Planning Department

Funding Source: Building permit fees

CDI-78 Continue to work with the Community Housing Improvement Program (CHIP) or other nonprofit corporations that provide similar services, to provide housing opportunities for low- and moderate-income households by assisting CHIP in locating suitable sites and making redevelopment housing set-aside funds available at low interest rates to finance housing construction and/or rehabilitation.

Implements policies: CDP-83, CDP-84 CDP-92, CDP-93, CDP-98, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: General fund, redevelopment funds

Impact #3.11-2: Growth and development under the Plan may restrict the choices available to Glenn County residents of housing locations.

Conclusion: This effect could be directly and cumulatively significant if unregulated growth and development were allowed to occur in a way that precludes the option for residential use. When adopted, the following *Policy Plan* provisions will reduce this effect to a less than significant level.

Policies: It shall be the policy of Glenn County to:

CDP-87 Accommodate and encourage development of a full range of housing types in the unincorporated communities of Glenn County.

CDP-88 Maintain a sufficient inventory of developable land to accommodate timely development of needed new housing.

CDP-89 Direct new housing development to areas within urban limit lines where essential public facilities can be provided and where appropriate employment, commercial and educational services are available.

Quantified Objective:

CDO-2 Designation of sufficient land for residential development to accommodate the land required for new development through 1997.

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

CDI-50 Prepare a five-year land use plan update that will set aside sufficient land area within urban limit lines to meet future residential needs through 1997 and allow sufficient land choice and inhibit inflated land values due to potential monopoly of growth areas.

Implements policy: CDP-88

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-51 Include in this *General Plan* and the accompanying *Capital Improvements Plan* and *Impact Mitigation Fee Program* the identification of infrastructure and service limitations that inhibit housing development and identify programs and resources to address short-term and long-term needs.

Implements policies: CDP-89, CDP-91, CDP-97

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-52 Amend the *Glenn County Zoning Code* to allow emergency shelters and transitional housing as conditional uses in zones applied to sites designated for residential, commercial and public uses. The standardized conditions under which emergency shelters and transitional housing will be approved include:

- The site is located within reasonable access to public agencies and transportation services
- Public services and facilities are available to the site
- Uniform Housing Code standards for space requirements are met

- Reduced parking standards will apply

Implements policies: CDP-87, CDP-103, CDP-104

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-55 Allocate a portion of any future redevelopment housing set-aside funds for the purchase of sites for low- and moderate-income housing, to be land-banked or used for the development of assisted housing.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority/Year: Upon adoption of redevelopment plans

Lead Agency: Glenn County Redevelopment Agency

Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

Funding Source: Redevelopment funds

CDI-56 Utilize the Redevelopment Agency, if established, to identify suitable sites for assisted housing, and assist in providing for the development of infrastructure improvements to serve those sites.

Implements policies: CDP-88, CDP-89, CDP-91, CDP-97

Priority/Year: Upon establishment of Redevelopment Agency

Lead Agency: Glenn County Redevelopment Agency

Funding Source: Redevelopment funds

CDI-58 Work with and assist those developers who are willing to provide low-and moderate-income housing by taking all necessary and proper actions to expedite processing and approvals for such projects, such as prompt completion of staff reports and scheduling of hearings, providing needed information, and assistance with the application process for State and/or federal housing assistance programs. Through communication and correspondence with legislators, support State and federal actions that create a positive, stable climate for housing production.

Implements policies: CDP-82, CDP-83, CDP-84, CDP-87, CDP-91

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Redevelopment Agency, Glenn County Community Services Department

Funding Source: General fund, redevelopment funds

CDI-60 Encourage non-profit sponsors to make application for HUD Section 202 allocations for construction of rental housing for senior citizens and the handicapped by assisting sponsors in locating appropriate sites and considering the use of CDBG funds, redevelopment funds, and/or other available resources to either write down the cost of the site or fund infrastructure improvements. Take all actions necessary and proper to expedite processing and approval of such projects.

Implements policies: CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Board of Supervisors, nonprofit sponsors

Funding Source: CDBG funds, redevelopment funds

CDI-61 Implement the density bonus requirements in State law. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25 percent and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

°20% of the units for lower-income households; or

°10% of the units for very low-income households; or

°50% of the units for senior citizens.

Implements policies: CDP-84, CDP-87, CDP-91, CDP-105

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn

County Planning Commission

Funding Source: General fund

CDI-62 Continue to investigate ways to encourage urban infill. Current development policies are analyzed in this *General Plan* update and programs formulated for providing incentives such as permitting higher densities under certain conditions, permitting mixed uses in certain locations, expediting processing of site plans, redevelopment, et cetera.

Implements policies: CDP-86, CDP-87, CDP-89, CDP-91, CDP-96, CDP-97

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn

County Planning Commission

Funding Source: General fund

CDI-66 Encourage developers to make application for Farmers Home Administration (FmHA) 502 Interest Subsidy programs and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-67 Encourage developers to make application for FmHA 515 loans to subsidize the construction of rental housing for low- and moderate-income families and elderly persons, and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals of such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-71 Construct or work with special districts to assure the construction of necessary infrastructure to allow for construction of all housing types, including higher-density multi-family housing. Assistance to special districts shall include provision for needed capital projects in the County's *Capital Improvements Plan*, provision of technical assistance with applications for State and/or federal funding, and assistance with required fee studies for implementation of mitigation fees for capital facilities.

Implements policies: CDP-84, CDP-86, CDP-89, CDP-97

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Public Works Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: Special assessments, user fees, redevelopment funds, CDBG funds

CDI-74 Continue to require the first floors of multi-family developments to accommodate access and use by the elderly and handicapped.

Implements policy: CDP-87
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Planning Department
Funding Source: Building permit fees

Impact #3.11-3: Existing and future housing stock will deteriorate and require maintenance or other action to meet Plan housing standards and correct or prevent blight.

Conclusion: As the planning period proceeds, deterioration of housing stock will occur. Some housing stock has already deteriorated (presumably) below County, State, and federal housing standards. This problem will grow as additional population growth and development proceed unless proper planning policies, controls, and funding are implemented. The following *Policy Plan* provisions address this impact and reduce it to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- CDP-90** Facilitate the removal of all unsafe, substandard dwellings that cannot be cost-effectively repaired.
- CDP-91** Encourage development of sound new housing on vacant land within existing neighborhoods that have the necessary infrastructure and services.
- CDP-92** Support and encourage all public and private efforts to rehabilitate and improve the existing housing stock, with a special focus on the communities of Artois, North East Willows, Elk Creek and Butte City.
- CDP-93** Promote public awareness of the need for housing and neighborhood conservation.
- CDP-94** Support actions that foster and maintain high levels of owner-occupancy, particularly in those neighborhoods where housing quality is declining.
- CDP-95** Promote development of public policies and regulations that provide incentives for proper maintenance of owner-occupied and rental housing.
- CDP-96** Manage development of land within and adjacent to existing neighborhoods to avoid potentially adverse impacts on the living environment.
- CDP-97** Encourage proper maintenance of essential public services and facilities in residential developments.

CDP-98 Encourage use of available public and private housing rehabilitation assistance programs in neighborhoods where such action is needed to ensure preservation of the living environment, with a special focus on the communities of Artois, North East Willows, Elk Creek and Butte City.

CDP-99 Facilitate maximum use of federal and State programs that can assist very-low and lower-income homeowners to properly maintain their dwelling units.

Quantified Objectives:

CDO-3 Rehabilitation of 68 dwellings through 1997 (to include 14 dwellings for very-low income category, 11 dwellings for low-income category, 14 dwellings for moderate-income category and 29 dwellings for above-moderate income category).

CDO-4 Conservation of existing dwellings through 1997 through objectives established in CDO-6 and CDO-7.

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

CDI-51 Include in this *General Plan* and the accompanying *Capital Improvements Plan* and *Impact Mitigation Fee Program* the identification of infrastructure and service limitations that inhibit housing development and identify programs and resources to address short-term and long-term needs.

Implements policies: CDP-89, CDP-91, CDP-97

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-54 Investigate formation of a Redevelopment Agency and adoption of redevelopment plans for blighted areas of unincorporated communities that will address their critical housing needs.

Implements policies: CDP-83, CDP-84, CDP-91, CDP-92, CDP-94, CDP-96, CDP-98, CDP-103

Priority: 2

Lead Agency: Glenn County Planning Department

Year: 1994-1997

Coordinating Agencies: Glenn County Community Services Department, Glenn County Redevelopment Agency, County Board of Supervisors, Glenn County Planning Commission, County Counsel

Funding Source: Redevelopment funds

CDI-55 Allocate a portion of any future redevelopment housing set-aside funds for the purchase of sites for low- and moderate-income housing, to be land-banked or used for the development of assisted housing.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104
Priority/Year: Upon adoption of redevelopment plans
Lead Agency: Glenn County Redevelopment Agency
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors
Funding Source: Redevelopment funds

CDI-56 Utilize the Redevelopment Agency, if established, to identify suitable sites for assisted housing, and assist in providing for the development of infrastructure improvements to serve those sites.

Implements policies: CDP-88, CDP-89, CDP-91, CDP-97
Priority/Year: Upon establishment of Redevelopment Agency
Lead Agency: Glenn County Redevelopment Agency
Funding Source: Redevelopment funds

CDI-57 Review County policies related to housing conservation and adopt new policies and procedures as necessary. This will include, but not be limited to, apartment and mobile home park conversions, rental housing, et cetera.

Implements policies: CDP-94, CDP-95
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Community Services Department, Glenn County Board of Supervisors
Funding Source: General fund

CDI-58 Work with and assist those developers who are willing to provide low and moderate-income housing by taking all necessary and proper actions to expedite processing and approvals for such projects, such as prompt completion of staff reports and scheduling of hearings, providing needed information, and assistance with the application process for State and/or federal housing assistance programs. Through communication and correspondence with legislators, support State and federal actions that create a positive, stable climate for housing production.

Implements policies: CDP-82, CDP-83, CDP-84, CDP-87, CDP-91
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Redevelopment Agency, Glenn County Community Services Department
Funding Source: General fund, redevelopment funds

CDI-60 Encourage nonprofit sponsors to make application for HUD Section 202 allocations for construction of rental housing for senior citizens and the handicapped by assisting sponsors in locating appropriate sites, and considering the use of CDBG funds, redevelopment funds, and/or other available resources to either write down the cost of the site or fund infrastructure improvements. Take all actions necessary and proper to expedite processing and approval of such projects.

Implements policies: CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors, nonprofit sponsors

Funding Source: CDBG funds, redevelopment funds

CDI-61 Implement the density bonus requirements in State law. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25 percent and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

- 20% of the units for lower-income households; or
- 10% of the units for very low-income households; or
- 50% of the units for senior citizens.

Implements policies: CDP-84, CDP-87, CDP-91, CDP-105

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-62 Continue to investigate ways to encourage urban infill. Current development policies are analyzed in this *General Plan* update and programs formulated for providing incentives, such as permitting higher densities under certain conditions, permitting mixed uses in certain locations, expediting processing of site plans, redevelopment, et cetera.

Implements policies: CDP-86, CDP-87, CDP-89, CDP-91, CDP-96, CDP-97

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission
Funding Source: General fund

CDI-64 Apply for Community Development Block Grant (CDBG) funds for housing rehabilitation in target areas in the communities of Artois, North East Willows, Elk Creek and Butte City. These efforts will be closely coordinated with the County's representative at the State Department of Housing and Community Development. Include room additions for severely over-crowded owner households in the housing rehabilitation program.

Implements policies: CDP-92, CDP-97, CDP-98, CDP-99, CDP-103
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn
County Board of Supervisors
Funding Source: General fund

CDI-65 Apply for housing rehabilitation funds and assist property owners in applying for funds through the California Housing Rehabilitation Program Rental Component (CHRP-R), the State Rental Rehabilitation Program (SRRP), and the California Energy Conservation Rehabilitation Program (CECRP).

Implements policies: CDP-92, CDP-98, CDP-99, CDP-103
Priority: 1
Year: 1995
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: General fund

CDI-66 Encourage developers to make application for Farmers Home Administration (FmHA) 502 Interest Subsidy programs and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn
County Planning Commission, Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-67 Encourage developers to make application for FmHA 515 loans to subsidize the construction of rental housing for low- and moderate-income families and elderly persons, and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals of such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-71 Construct or work with special districts to assure the construction of necessary infrastructure to allow for construction of all housing types, including higher-density multi-family housing. Assistance to special districts shall include provision for needed capital projects in the County's *Capital Improvements Plan*, provision of technical assistance with applications for State and/or federal funding, and assistance with required fee studies for implementation of mitigation fees for capital facilities.

Implements policies: CDP-84, CDP-86, CDP-89, CDP-97

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Public Works Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: Special assessments, user fees, redevelopment funds,

CDBG funds

CDI-72 Maintain and monitor a current inventory of all substandard housing units.

Implements policy: CDP-90

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Planning Department

Funding Source: Building permit fees

CDI-76 Inspect housing on receiving complaints regarding health and safety problems and require compliance with applicable codes.

Implements policies: CDP-90, CDP-93, CDP-94, CDP-95

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Building Department

Coordinating Agency: Glenn County Health Department

Funding Source: Fees, fines

CDI-77 Require demolition of vacant dilapidated dwellings that are not economically feasible to improve to code standards.

Implements policy: CDP-90

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Building Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: Fees, fines, CDBG funds

CDI-78 Continue to work with the Community Housing Improvement Program (CHIP) or other nonprofit corporations that provide similar services to provide housing opportunities for low- and moderate-income households by assisting CHIP in locating suitable sites and making redevelopment housing set-aside funds available at low interest rates to finance housing construction and/or rehabilitation.

Implements policies: CDP-83, CDP-84, CDP-92, CDP-93, CDP-98, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: General fund, redevelopment funds

Impact #3.11-4: Growth and development under the Plan may bring about conditions that adversely affect the availability of housing opportunities for all income levels.

Conclusion: Without effective regulation, this impact could be directly and cumulatively significant. Adoption of the following *Policy Plan* provisions will reduce this impact to a less than significant level.

Policies: It shall be the policy of Glenn County to:

CDP-100 Encourage enforcement of fair housing laws throughout the county.

CDP-101 Support programs that increase employment and economic opportunities.

CDP-102 Encourage development of a range of housing types for all income levels in proximity to existing and planned employment centers.

Quantified Objective:

CDO-5 Provide referral services for housing discrimination complaints to appropriate State and federal agencies through 1997.

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

CDI-63 Designate the Glenn County Community Services Department as the local referral agency to direct residents with discrimination complaints to the State Department of Fair Employment and Housing. Publicize this service through the local media, schools, libraries, the post office, and local housing advocacy groups.

Implements policy: CDP-100
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Planning Department
Funding Source: General fund

CDI-79 Support economic development programs and strategies set forth in Section 5.3.5 (Economic Development) of the *Policy Plan*.

Implements policies: CDP-101, CDP-102
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn Chamber of Commerce Economic Development Inc., Tri-County EDC, Cities of Willows and Orland
Funding Source: General fund, State and federal grants

Impact #3.11-5: Improper housing design standards can result in inefficient energy consumption.

Conclusion: This effect can be significant, both directly and cumulatively in proportion to the number of energy-inefficient units. Adoption of the following *Policy Plan* provision will reduce the effect to a less than significant level.

Policies: All policies, implementation standards and programs contained in the *Glenn County Energy Element* are incorporated herein by reference.

Impact #3.11-6: A housing shortage may arise under the Plan for special needs groups (elderly, large families, families with female heads of household, farm workers, disabled and homeless).

Conclusion: This impact could be both directly and cumulatively significant as growth and development proceed under the Plan. Adoption of the following *Policy Plan* provisions will reduce this impact to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- CDP-103** Encourage full use of federal and State housing assistance programs that can enable persons with unmet housing needs to obtain decent, affordable housing.
- CDP-104** Support the development of housing plans and programs, including new publicly-subsidized housing, that maximize housing choice for special needs groups and lower-income households commensurate with need.
- CDP-105** To the extent possible, implement adopted land development and resource management policies without imposing regulations that have the effect of excluding housing for special needs groups and lower-income households.

Quantified Objectives:

- CDO-6** Rental assistance to an annual average of 100 households through 1997 (to include 36 very-low income category households, 28 low-income category households and 36 moderate-income category households).
- CDO-7** Homeowner assistance to an annual average of 55 households through 1997 (to include 20 very-low income category households, 15 low-income category households, and 20 moderate-income category households).

Implementation Strategies, Programs, Priorities and Five-Year Action Plan:

- CDI-52** Amend the *Glenn County Zoning Code* to allow emergency shelters and transitional housing as conditional uses in zones applied to sites designated for residential, commercial and public uses. The standardized conditions under which emergency shelters and transitional housing will be approved include:
- The site is located within reasonable access to public agencies and transportation services
 - Public services and facilities are available to the site
 - Uniform Housing Code standards for space requirements are met
 - Reduced parking standards will apply

Implements policies: CDP-87, CDP-103, CDP-104

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

- CDI-53** Develop and maintain an inventory of publicly-owned land within the unincorporated area and analyze that land for potential housing sites. If appropriate sites are identified, the County will approach developers and

funding agencies to facilitate development of the sites with assisted housing.

Implements policy: CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Planning Department

Funding Source: General fund, CDBG Technical Assistance grant

CDI-54 Investigate formation of a Redevelopment Agency and adoption of redevelopment plans for blighted areas of unincorporated communities that will address their critical housing needs.

Implements policies: CDP-83, CDP-84, CDP-91, CDP-92, CDP-94, CDP-96, CDP-98, CDP-103

Priority: 2

Lead Agency: Glenn County Planning Department

Year: 1994-1997

Coordinating Agencies: Glenn County Community Services Department,

Glenn County Redevelopment Agency, County Board of Supervisors,

Glenn County Planning Commission, County Counsel

Funding Source: Redevelopment funds

CDI-55 Allocate a portion of any future redevelopment housing set-aside funds for the purchase of sites for low- and moderate-income housing to be land-banked or used for the development of assisted housing.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority/Year: Upon adoption of redevelopment plans

Lead Agency: Glenn County Redevelopment Agency

Coordinating Agencies: Glenn County Planning Department, Glenn

County Board of Supervisors

Funding Source: Redevelopment funds

CDI-59 Support the continued implementation of the Section 8 Existing rent subsidy program, which provides rent subsidies directly to participants' landlords, and support attempts to secure additional funding for expanded programs.

Implements policy: CDP-103

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: General fund

CDI-60 Encourage non-profit sponsors to make application for HUD Section 202 allocations for construction of rental housing for senior citizens and the handicapped by assisting sponsors in locating appropriate sites, and considering the use of CDBG funds, redevelopment funds, and/or other available resources to either write down the cost of the site or fund infrastructure improvements. Take all actions necessary and proper to expedite processing and approval of such projects.

Implements policies: CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Board of Supervisors, nonprofit sponsors

Funding Source: CDBG funds, redevelopment funds

CDI-61 Implement the density bonus requirements in State law. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25 percent, and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

- 20% of the units for lower-income households; or
- 10% of the units for very low-income households; or
- 50% of the units for senior citizens.

Implements policies: CDP-84, CDP-87, CDP-91, CDP-105

Priority: 1

Year: 1993

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-64 Apply for Community Development Block Grant (CDBG) funds for housing rehabilitation in target areas in the communities of Artois, North East Willows, Elk Creek and Butte City. These efforts will be closely coordinated with the County's representative at the State Department of Housing and Community Development. Include room additions for severely overcrowded owner households in the housing rehabilitation program.

Implements policies: CDP-92, CDP-97, CDP-98, CDP-99, CDP-103

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

Funding Source: General fund

CDI-65 Apply for housing rehabilitation funds and assist property owners in applying for funds through the California Housing Rehabilitation Program Rental Component (CHRP-R), the State Rental Rehabilitation Program (SRRP), and the California Energy Conservation Rehabilitation Program (CECRP).

Implements policies: CDP-92, CDP-98, CDP-99, CDP-103

Priority: 1

Year: 1995

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: General fund

CDI-66 Encourage developers to make application for Farmers Home Administration (FmHA) 502 Interest Subsidy programs and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-67 Encourage developers to make application for FmHA 515 loans to subsidize the construction of rental housing for low- and moderate-income families and elderly persons, and work with and assist those developers. Take all necessary and proper actions to expedite processing and approvals of such projects.

Implements policies: CDP-83, CDP-87, CDP-91, CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agencies: Glenn County Planning Department, Glenn

County Planning Commission, Glenn County Board of Supervisors

Funding Source: Farmers Home Administration

CDI-68 Make application to the State of California to fund housing under the HCD Farm Worker Housing Grant Program (FWHG) for low-income agricultural worker renters and owners and the Office of Migrant Services (OMS) grant for temporary housing and support services to migrant families.

Implements policies: CDP-83, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: State Department of Housing and Community Development

CDI-69 Encourage developers to make application for the Rental Housing Construction Program (RHCP), which provides low interest, deferred payment loans for new construction of rental units affordable to low-income households. Work with and assist those developers and take all necessary and proper actions to expedite processing and approvals for such projects.

Implements policies: CDP-83, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Planning Commission, Glenn County Board of Supervisors
Funding Source: California Housing Finance Agency

CDI-70 Make application, or encourage nonprofit sponsors to make application, for FmHA 514/516 allocations for rentals that provide a combination of grants and loans to finance the construction of Migrant Farm Worker Rental Housing.

Implements policies: CDP-83, CDP-103, CDP-104
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Community Services Department
Coordinating Agency: Glenn County Board of Supervisors
Funding Source: Farmers Home Administration

CDI-73 Continue to review innovations and cost-saving materials and techniques that will provide the same quality construction at a lower cost to the consumer. Provide annual progress reports to the local chapter of the Building Industry Association and make them available to the public at the Building Department counter.

Implements policies: CDP-84, CDP-85, CDP-105
Priority: 1
Year: 1993 and ongoing
Lead Agency: Glenn County Building Department
Coordinating Agency: Glenn County Planning Department

Funding Source: Building permit fees

CDI-75 Continue to analyze setback requirements, lot design criteria, review procedures, parking requirements, and road standards and modify each of these where feasible to reduce development costs.

Implements policy: CDP-105

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

Funding Source: General fund

CDI-78 Continue to work with the Community Housing Improvement Program (CHIP) or other non-profit corporations that provide similar services, to provide housing opportunities for low- and moderate-income households by assisting CHIP in locating suitable sites and making redevelopment housing set-aside funds available at low interest rates to finance housing construction and/or rehabilitation.

Implements policies: CDP-83, CDP-84, CDP-92, CDP-93, CDP-98, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Community Services Department

Coordinating Agency: Glenn County Board of Supervisors

Funding Source: General fund, redevelopment funds

CDI-80 Provide incentives to developers for development of multifamily units with three or more bedrooms.

Implements policies: CDP-103, CDP-104

Priority: 1

Year: 1993 and ongoing

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Planning Commission, Glenn County Board of Supervisors

3.11.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.12 PUBLIC SERVICES AND UTILITIES

3.12.1 SETTING

Public services and facilities are discussed in Section 4.5 of the *Environmental Setting Technical Paper* and Section 5.0 of the *Community Development Issue Paper*.

3.12.2 IMPACTS

Impact Evaluation Criteria:

The provision of public services and facilities is directly tied to land use and growth, circulation, housing and economic development. Section 65302(b) of the Government Code requires the circulation element to address existing and proposed public utilities and facilities. Because the location and distribution of new public facilities is dependent on established land use patterns, the issue of public services and facilities should be correlated with the land use element.

There are a multitude of public service providers in Glenn County, including community services districts, irrigation districts, public utility districts, fire districts, school districts, and other special districts. These districts are self-governing and are not subject to County control. The County must coordinate its plans for growth and development with these districts in order to assure that services can be provided on a timely basis to areas planned for development, including areas within urban limit lines.

The availability of adequate public services is critical to the County's economic development effort, and is touched upon in several sections of the *Policy Plan*. In addition to the implementation measures and priorities established in the *Policy Plan*, the *Capital Improvements Plan* that will be prepared in conjunction with this *General Plan* update addresses needed capital facilities, financing methods and project priorities.

As part of the *General Plan*, level of service standards have been established in the *Policy Plan* for public services. It is intended that these standards be used to evaluate the impact of development on the various services and to evaluate distribution and expansion needs.

Impact #3.12-1: Growth and development under the Plan will strain existing public services and facilities and utilities and create demand for expanded services and facilities.

Conclusion: This impact could be directly and cumulatively significant. In the absence of adequate planning for this impact, there would soon be a shortfall of service capacity related to schools, fire and police protection, water and wastewater treatment, and other necessary, often legally mandated services. Adoption of the following *Policy Plan* provisions would reduce the effect to a less than significant level.

Policies: It shall be the policy of Glenn County to:

CDP-106 Establish level of service standards for public services that can be used to evaluate the impact of development on the various services and service distribution and expansion needs.

- CDP-107** Utilize urban limit lines as an official definition of the interface between future urban and agricultural uses and to identify areas set aside for those types of uses that benefit from urban services.
- CDP-108** Require new development within urban limit lines to connect to sewer and water services when available and discourage installation of septic tanks in urban areas. When sewer and water services are not immediately available, commitments to serve in the future shall be obtained from service providers prior to development approval.
- CDP-109** Encourage new urban development to occur within urban limit lines as an extension of existing urbanized areas to provide necessary services in the most efficient manner.
- CDP-110** Discourage extension of public facilities that would generate growth in areas inconsistent with the policies of this *General Plan*.
- CDP-111** Coordinate with the cities of Orland and Willows to develop policies and standards relating to building construction, public utility connections, sewer and water service, and other matters related to cost-effective development of unincorporated areas within urban limit lines.
- CDP-112** Require improvements for development within urban limit lines to be constructed to full County standard, including public roads.
- CDP-113** Encourage the expansion of private and special district utility systems consistent with the adopted *General Plan*.
- CDP-114** Encourage vacant or undeveloped land within existing urban areas and presently served by public services to develop first.
- CDP-115** Encourage the coordination of service efforts of special districts.
- CDP-116** Encourage LAFCo to amend Spheres of Influence for cities and special districts to be coterminous with County-adopted urban limit lines.
- CDP-117** Require new parcels created under the parcel map procedure within urban limit lines to meet County public road standards.
- CDP-118** Restrict growth in foothill and mountain communities to densities that may be supported by existing services until adequate services can be provided.
- CDP-119** Determine whether special districts are capable of meeting their service commitments; in the event they are not, consider formation of County Service Areas, other special districts or assessment districts, to deliver services as needed within urban limit lines.

- CDP-120** Undertake the siting of new wastewater treatment facilities as a coordinated effort between the County, cities and special districts.
- CDP-121** Within the communities of Willows, Orland and Hamilton City, collect and treat all wastewater at a single facility within each community.
- CDP-122** Place a high priority on the extension of sewer service to West Orland and to the South Orland area in the interest of protecting public health and safety and a valuable ground water recharge area.
- CDP-123** Maintain and periodically review minimum parcel standards for lots created without public or community water service.
- CDP-124** Maintain coordination and cooperation between the County and water purveyors and encourage special districts to comply with State law by referring capital projects to the County for review and evaluation for consistency with the *General Plan*.
- CDP-125** Site future fire and police stations to enable minimum acceptable response times to service calls.

LEVEL OF SERVICE STANDARDS FOR PUBLIC SERVICES

The following standards shall guide the determination that levels of service are adequate for proposed development:

Police Protection: Staffing ratio of one officer per 1,000 population. Response time of 5 minutes inside urban limit lines, 15 minutes outside urban limit lines.

Fire Protection: ISO rating of no less than 8 for rural areas. ISO rating of no less than 5 for areas within urban limit lines.

Water Service: Community water system/hookup required for lots less than 10,000 square feet or larger than 10,000 square feet but less than 2 acres where no public or community sewage disposal system is available.

Sewer Service: Community sewage disposal system/hookup required for lots less than 10,000 square feet or larger than 10,000 square feet but less than 2 acres where no public or community water system is available.

Parks: Ratio of 5 acres of developed parks per 1,000 population.
Minimum park size of 5 acres.

Payment of in-lieu fees: Only payment of fees shall be required for subdivisions containing 356 lots or less, except for a condominium project, stock cooperative, or community apartment project where dedication of land may be required for fewer lots, or except for areas of new planned communities under a specific plan where payment of fees, dedication of land, or a combination thereof may be required.

Formula for determining in-lieu fees: Average cost per acre of land zoned and assessed for single-family residential use, based on the proportionate acreage requirement calculated by the per capita ratio of 5 acres of land per 1,000 population.

Implementation Strategies, Programs and Priorities:

- CDI-81** Amend the *Glenn County Subdivision Ordinance* and *Glenn County Zoning Code* to conform to the standards for connection to sewer and water systems set forth in this *General Plan* and prohibit installation of new individual septic tanks and wells when community services are available.
- Implements policy: CDP-108
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission
- CDI-82** Prior to approval of subdivisions, parcel maps and conditional use permits, applicants shall be required to obtain commitments to serve new development within urban limit lines from service providers when services are not immediately available.
- Implements policy: CDP-108
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Special Districts, City of Orland, City of Willows
- CDI-83** Formally request LAFCo to amend special district boundaries and City Spheres of Influence to be coterminous with County-adopted urban limit lines and refer proposed district annexations to the County for review and comment.
- Implements policies: CDP-110, CDP-113, CDP-116
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

- CDI-84** Convene a task force composed of representatives of Glenn County and the cities of Willows and Orland to formulate a memorandum of understanding that establishes uniform policies and standards for building construction, public utility connections, sewer and water service, and other matters related to cost-effective development of unincorporated areas within city urban limit lines.
- Implements policy: CDP-111
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors, Glenn County Building Department, City of Orland, City of Willows
- CDI-85** Amend the *Glenn County Subdivision Ordinance* and *Glenn County Zoning Code* to require improvements for development within urban limit lines to be constructed to full County standard, including public roads.
- Implements policies: CDP-112, CDP-117
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Public Works Department
- CDI-86** Provide private and special district utility systems with copies of the *General Plan* and refer all proposed *General Plan* amendments and development proposals to affected systems and districts for review and comment.
- Implements policy: CDP-113
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Special districts, other system operators
- CDI-87** Formally request all private and special district utility systems to refer planned capital projects to the County for review and evaluation for consistency with the *General Plan*.
- Implements policies: CDP-113, CDP-124
Priority: 1
Lead Agency: Glenn County Board of Supervisors
Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, special districts, other system operators
- CDI-88** Direct development in the foothill and mountain regions to the Elk Creek area.

Implements policy: CDP-118, NRP-1, NRP-16
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-89 Request that LAFCo initiate studies of existing special districts and cities including an inventory of those agencies and their maximum service areas and service capacities.

Implements policies: CDP-106, CDP-113, CDP-115, CDP-119
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

CDI-90 Request that LAFCo adopt standards and procedures for evaluating service plans submitted by cities and special districts with annexation/reorganization applications.

Implements policies: CDP-106, CDP-108, CDP-113, CDP-115, CDP-119
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

CDI-91 Request that LAFCo study and make recommendations regarding the consolidation, formation, and/or dissolution of special districts, as appropriate, to meet service needs within urban limit lines/Spheres of Influence.

Implements policy: CDP-119
Priority: 2
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Local Agency Formation Commission, Glenn County Board of Supervisors

CDI-92 Initiate a study of the formation of County Service Areas and assessment districts to deliver services as needed.

Implements policy: CDP-119, CDP-127, CDP-130
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

- CDI-93** Enter into joint powers agreement(s) with the cities of Willows and Orland and appropriate special districts to coordinate the siting of new wastewater treatment facilities and to limit treatment facilities to a single facility within each community.
- Implements policies: CDP-120, CDP-121
Priority: 2
Lead Agency: Glenn County Public Works Department
Coordinating Agencies: City of Orland, City of Willows, Glenn County Board of Supervisors, special districts
- CDI-94** Designate the extension of sewer service to West Orland and the South Orland area as a priority item in the County's capital improvements program.
- Implements policy: CDP-122
Priority: 1
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors, Glenn County Planning Department
- CDI-95** Request that the Environmental Health Department review minimum parcel size standards for areas without public or community water service for adequacy as new information becomes available (e.g., soil surveys, new regulations).
- Implements policy: CDP-123
Priority: 1
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Health Department, Glenn County Board of Supervisors
- CDI-96** Amend the *Glenn County Zoning Code* and *Subdivision Ordinance* to require that applications for new communities, specific plans, planned developments, and other large-scale projects include a fiscal impact analysis (including impacts on general County government services) and a plan for providing services, including provision for full funding and long-term maintenance of facilities, and demonstrating that there are adequate concentrations of population to support operation and maintenance of facilities.
- CDI-111** Annually review response times with fire and police service providers to determine if additional sites for fire and police stations should be incorporated into County plans and/or development approvals.
- Implements policy: CDP-125
Priority: 2

Lead Agency: Glenn County Planning Department
Coordinating Agencies: Fire districts, Glenn County Sheriff

Impact #3.12-2: Along with impacts to public services and facilities as described above will come impacts related to the ability of the County to provide funding for such facilities.

Conclusion: This impact could be directly and cumulatively significant. Adoption of the following *Policy Plan* provisions would reduce this impact to a less than significant level.

Policies: It shall be the policy of Glenn County to:

- CDP-126** Require new planned communities to demonstrate that public services and facilities can be fully funded through private and/or public sources and that adequate provision has been made for long-term maintenance of facilities.
- CDP-127** Develop programs to assist with infrastructure financing when such assistance is determined to be in the best interest of the County, using a mix of techniques.
- CDP-128** Evaluate use of the redevelopment process to correct infrastructure and other deficiencies within blighted areas of unincorporated communities.
- CDP-129** Consider the impacts of growth and development on general County government services when developing cost recovery plans and considering new development proposals.
- CDP-130** Utilize County Service Areas when new service delivery agencies are required to retain control and avoid a proliferation of small special purpose governmental units. Consider establishment of a countywide County Service Area that can provide a variety of public services.
- CDP-131** Approve supplemental school mitigation fees for those instances where supplemental fees are necessary to meet the facility funding needs of a school district and where other methods of school financing are not adequate. "Supplemental school mitigation fees" shall mean payments made to a school district by a developer of a residential, commercial or industrial project to mitigate the impact on school facilities caused by the project in addition to fees imposed pursuant to Government Code Section 65995.
- CDP-132** Grant a discretionary land use approval for residential, commercial or industrial development only if the school district or districts within whose boundaries the development is planned first certifies to the Board of Supervisors that:
- The subject development will not significantly impact school facilities,

- The developer has paid in full the supplemental school mitigation fees corresponding to the development, or
- That the developer has arranged and agreed to mitigate the impact on school facilities in some other manner satisfactory to the district, consistent with the district's financing plan.

As used in this policy, "discretionary land use approval" means a zoning change, general plan amendment, any other legislative action, and certification or approval of a negative declaration (ND) or an environmental impact report (EIR) pursuant to the California Environmental Quality Act (CEQA).

This policy shall apply only if the affected school district has:

- Adopted a facilities plan
- Adopted a school financing plan describing the sources and amounts of funds required to fully implement the facilities plan
- Completed a valid study justifying the amount of the supplemental school mitigation fees

CDP-133 Ensure that supplemental school mitigation fees established by the affected school district do not exceed the amount necessary, when added to other reasonably assured sources of funding identified in the school facilities financing plan, to fully implement the adopted school facilities plan.

CDP-134 Establish sufficiently high densities in newly developing areas to make feasible centralized collection and treatment of wastewater and limit the number of planned new communities to assure that there are adequate concentrations of population to support operation and maintenance of facilities.

CDP-135 Establish mechanisms for funding park acquisition and development, as well as ongoing costs of park maintenance and recreation services.

CDP-136 Recognize the importance and support continued operation of the Glenn County Hospital.

Implementation Strategies, Programs and Priorities:

CDI-92 Initiate a study of the formation of County Service Areas and assessment districts to deliver services as needed.

Implements policy: CDP-119, CDP-127, CDP-130

Priority: 2

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

CDI-96 Amend the *Glenn County Zoning Code* and *Subdivision Ordinance* to require that applications for new communities, specific plans, planned developments, and other large-scale projects include a fiscal impact analysis (including impacts on general County government services) and a plan for providing services, including provision for full funding and long-term maintenance of facilities, and demonstrating that there are adequate concentrations of population to support operation of maintenance of facilities.

Implements policies: CDP-126, CDP-129, CDP-132

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-97 Investigate establishment of a Glenn County Redevelopment Agency and adopt redevelopment plan(s) for blighted areas of unincorporated communities.

Implements policies: CDP-127, CDP-128

Priority: 2

Lead Agency: Glenn County Planning Department

Coordinating Agency: County Counsel, Glenn County Board of Supervisors, Glenn County Planning Commission, Glenn County Redevelopment Agency

CDI-98 Apply for Community Development Block Grant funds for infrastructure improvements in areas of need.

Implements policy: CDP-127

Priority: 2

Lead Agency: Glenn County Community Services Department,

Coordinating Agencies: Glenn County Public Works Department, Glenn County Board of Supervisors

CDI-99 Create or assist in the creation of County Service Area(s), assessment districts, Mello-Roos Community Facilities Districts, or other public financing mechanisms, such as a Joint Powers Authority, as required to provide for new service delivery.

Implements policies: CDP-127, CDP-130

Priority: 2

Lead Agency: Glenn County Public Works Department

Coordinating Agencies: Glenn County Planning Department, Glenn County Board of Supervisors

CDI-100 Conduct a review of school district facility plans and master economic plans to determine the status of plans, the need for supplemental school mitigation fees, and consistency with *General Plan* policies.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: School Districts, Glenn County Superintendent of Schools, Glenn County Board of Supervisors, City of Orland, City of Willows

CDI-101 Ensure that the Glenn County Superintendent of Schools and the boards of affected school districts are informed of development proposals and afforded the opportunity to evaluate their potential effect on the physical capacity of school facilities and their fiscal impact on locally originating revenue requirements. Procedures should be put into practice that will ensure that the conclusions of the educational administrators will be available sufficiently before the County's consideration and action on discretionary land use applications.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, School Districts, Glenn County Superintendent of Schools

CDI-102 Request that school districts calculate supplemental school mitigation fees on a gross square footage basis and approve adjustments to the fee rate under the following circumstances:

- For inflation using the same procedure as pursuant to Government Code Section 65995
- As new data available to the school district warrants a change in one or more of the variables used in the calculation of fees.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Superintendent of Schools, School Districts

CDP-103 Develop an advocacy program to advance County objectives in the State Legislature and State Department of Education.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Superintendent of Schools, School Districts

Note: Measures CDI-100 through CDI-103 shall not take effect unless the incorporated city within the school district, if applicable, has also adopted the same measures.

CDI-104 Forward all development proposals and *General Plan* amendments to affected school districts for review with regard to school capacity and potential school sites.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: School districts

CDI-105 Review proposed school sites for consistency with the *General Plan*.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, School districts

CDI-106 Adopt a supplemental development impact fee program to assist school districts to offset impacts on their facilities resulting from residential growth.

Implements policies: CDP-131, CDP-132, CDP-133

Priority: 3

Lead Agency: Glenn County Planning Department

Coordinating Agencies: County Counsel, Glenn County Board of supervisors, Glenn County Superintendent of Schools, School Districts

CDI-107 Designate and zone areas within urban limit lines at densities sufficiently high to make feasible centralized collection and treatment of wastewater (at least 4 dwelling units per acre).

Implements policy: CDP-134

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

CDI-108 Adopt a Quimby Ordinance to establish a funding mechanism for park acquisition and development in accordance with the standards established in the *General Plan*.

Implements policy: CDP-135
Priority: 3
Lead Agency: Glenn County Planning Department
Coordinating Agencies: Glenn County Board of Supervisors, Glenn
County Planning Commission

CDI-109 Utilize County Service Area(s) and/or assessment district(s) to finance park maintenance and recreation services.

Implements policy: CDP-135
Priority: 3
Lead Agency: Glenn County Public Works Department
Coordinating Agency: Glenn County Board of Supervisors

CDI-110 Continue to operate and provide necessary support for the Glenn County Hospital, provided it is financially feasible as determined by the Board of Supervisors.

Implements policy: CDP-136
Priority: 1
Lead Agency: Glenn County Health Department
Coordinating Agencies: Glenn County Board of Supervisors

3.12.3 MITIGATION MEASURES

All potentially significant impacts identified above will be mitigated to a less than significant level by Plan policies, standards, and implementation measures. Therefore, no mitigation measures are required.

3.13 AESTHETICS/SCENIC RESOURCES

3.13.1 SETTING

Discussion of aesthetic considerations with respect to development design standards and the "built environment" appears in Section 2.4 of the *Community Development Issue Paper*. Sections 7.3 and 7.4 of the *Natural Resources Issue Paper* address aesthetics with respect to the natural environment. Section 4.0 of the *Natural Resources Issue Paper* identifies several areas of outstanding scenic and cultural values relating to biological resources.

3.13.2 IMPACTS

Impact Evaluation Criteria:

Glenn County possesses great scenic beauty and variety, which is worthy of protection for its intrinsic value as well as for its economic development potential in terms of attracting tourism. There are no eligible or State-designated scenic highways within Glenn County; however, State Highways 45 and 162 have been recommended for scenic highway status. Areas of outstanding scenic, historic and cultural values have been identified and include the twelve important Biological Resource areas identified and addressed in the *Policy Plan* under the Biological

Resources goals and policies; the historic sites referenced in the *Policy Plan*; the Grindstone Indian Reservation; County parks; and the Mendocino National Forest.

Appendix G to the *CEQA Guidelines* states that "a project will have a significant effect on the environment if it will have a substantial, demonstrable negative aesthetic affect." Government Code Section 65302(a) requires a general plan land use element to designate lands as open space for, among other purposes, enjoyment of scenic beauty. State *General Plan Guidelines* suggest the following considerations under the heading of "Enjoyment of Scenic Beauty":

- inventory of scenic "viewsheds" and points of interest
- definition of community scenic values
- programs for protecting and promoting community aesthetics
- identification of scenic drives and highways

Government Code Section 65561(a) states:

That the preservation of open-space land, as defined in this article, is necessary not only for the maintenance of the economy of the state, but also for the assurance of the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation and for the use of natural resources (emphasis added).

Light and glare is another consequence of development that can adversely affect aesthetic values. Any use that would result in substantial, unmitigated light and glare that would negatively affect adjacent or nearby residential and other sensitive uses (e.g., schools, hospitals) is considered to represent a significant impact.

Impact #3.13-1: Growth and development under the plan could result in impacts to the aesthetic and scenic values present in the county.

Conclusion: This impact could be significant, both directly and cumulatively. The following *Policy Plan* provisions are intended to reduce the potential effects on aesthetic resources, including cultural, historic, and biological resources, as well as areas of scenic value, to a less than significant level. These provisions also are intended to prevent significant new sources of light and glare.

Policies: It shall be the policy of Glenn County to:

NRP-78 Protect identified areas of unique historical or cultural value within the county and preserve those sites for educational, scientific and aesthetic purposes.

NRP-79 Recognize the following historic sites in future planning and decision-making:

- Monroeville Cemetery Historical Site
- Will S. Green Monument
- Swift Adobe Monument
- Kanawha Cemetery Monument
- Monroeville and Ide Monument
- Willows Monument
- Jacinto Landing
- Historic School Sites

- NRP-80** Consider preparation of an historic preservation plan.
- NRP-81** Require proper evaluation and protection of archaeological resources discovered in the course of construction and development.
- NRP-82** Avoid light and glare impacts when considering development proposals.
- NRP-83** Consider preparation of a scenic highways plan.

Implementation Strategies, Programs and Priorities:

- NRI-52** Show recognized historic sites and other areas of unique cultural value on an overlay to the *Land Use Diagram* and reference the overlay when reviewing development proposals.

Implements policies: NRP-78, NRP-79

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission, California Archaeological Inventory Information Center

- NRI-53** Establish a local committee of citizens to determine the interest in the future development of an historic preservation plan, containing policies and standards for protection of historic resources.

Implements policy: NRP-80

Priority: 3

Lead Agency: Glenn County Board of Supervisors

Coordinating Agency: Glenn County Planning Department

- NRI-54** Require development projects to comply with the process outlined in Appendix K to the *CEQA Guidelines* for protection of archaeological resources.

Implements policies: NRP-81

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-55 Require archaeological surveys of potential development sites in accordance with the standards set forth in this *General Plan*.

Implements policy: NRP-81

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Board of Supervisors, Glenn County Planning Commission

NRI-56 Establish a local committee of citizens to determine the interest in a designated system of scenic highways, vistas or corridors and subsequently implement policies and standards for their protection.

Implements policy: NRP-83

Priority: 3

Lead Agency: Glenn County Board of Supervisors

Coordinating Agencies: Glenn County Planning Department, Glenn County Public Works Department, Glenn County Transportation Commission, Glenn County Planning Commission

NRI-57 Condition development permits to require all exterior lighting accessory to any use to be hooded, shielded or opaque, and no unobstructed beams of light shall be directed beyond any exterior lot line or adjacent right-of-way.

Implements policy: NRP-82

Priority: 1

Lead Agency: Glenn County Planning Department

Coordinating Agencies: Glenn County Building Department, Glenn County Public Works Department

3.13.3 MITIGATION MEASURES

Adoption of the *Policy Plan* provisions listed under this impact will reduce the impact to a less than significant level. Therefore, no mitigation measures are necessary.

3.14 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND MAINTENANCE OF LONG-TERM PRODUCTIVITY

Section 15126(e) of the *CEQA Guidelines* requires discussion of this topic. Under this heading, the *CEQA Guidelines* require description of the cumulative and long-term effects of the proposed project that adversely affect the state of the environment. Special attention is to be given to impacts that narrow the range of beneficial uses of the environment or pose long-term risks to health and safety. Reasons are to be stated why the project is believed to be justified in the face of such effects.

The project in this case is the "preferred alternative" *General Plan* as described in the *Policy Plan* document. A general plan, by definition, is a comprehensive plan that establishes long-term land use policy for the county in order to achieve orderly, rational growth and development and maintain long-term economic viability and productivity. It will remain in effect for 20 years, and therefore, it will affect the county's environment for that period. It is the explicit objective of any general plan to have beneficial, rather than adverse, effects on the environment to the greatest feasible extent in the face of inevitable growth and development. Preservation of existing environmental values, such as scenic values, wildlife habitat, air and water quality, roadway levels of service, cultural resources, et cetera, can be construed as a beneficial effect. This EIR is an assessment of the long-term cumulative effects of development on the environment under the Plan.

As discussed throughout this chapter, any commitment of undeveloped land or open space to urban uses represents a long-term commitment to other uses. Some of these commitments would undoubtedly be permanent and irreversible. Potentially affected by such long-term commitment could be wildlife habitats, including wetlands, scenic and cultural resources, prime agricultural lands and their soils, mineral deposits, ground water recharge areas, and watersheds.

The goals, policies, implementation measures, and standards of the *Policy Plan*, many of which are repeated in this chapter under specific impacts, are intended to achieve a reasonable balance between environmental preservation and the accommodation of growth and development. For example, the Plan provides for preservation of agricultural lands in the face of development by providing for gradual and orderly development in agricultural areas. Agricultural lands will be buffered from non-agricultural uses to minimize conflicts with existing agricultural operations. Marginal agricultural lands would be developed before prime agricultural lands, which are afforded greater protection against development.

In conclusion, the demands of growth and development will require that some undeveloped lands or open space will be committed to other uses. However, the effects will be minimized to an acceptable level by proceeding with development according to the goals, policies, implementation measures, and standards of the *General Plan*.

3.15 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126(f) of the *CEQA Guidelines* requires that an EIR discuss significant irreversible environmental changes that would result from the proposed project. Specifically, this section addresses irreversible commitments to land uses that would put non-renewable resources permanently out of reach or, conversely, commit such resources to consumption now rather than preserving them for future generations.

Non-renewable resources that may be affected by growth and development under the Plan include wildlife habitat, prime agricultural soils, water, and mineral resources. Treatment of these resources under the Plan is described in this chapter above. Plan provisions are designed to mitigate the loss or use of these resources to acceptable levels. For examples, Plan provisions that govern the treatment of mineral resources provide for an orderly system of permitting for the extraction of aggregate material and oil and gas that ensures the option to develop such resources, while simultaneously providing a fee system to compensate the County for resource

depletion and provide for rehabilitation of lands used for mineral extraction so that they can be converted to other uses after mining is terminated. Other Plan provisions provide permanent protection for watersheds and ground water recharge areas and biological surveys for all development projects to ensure that effects to wildlife and their habitats are identified and mitigated. Similarly, there are comprehensive policies and standards that are designed to maximize preservation of prime agricultural soils and prevent their conversion to other uses.

In conclusion, some irreversible commitment of non-renewable resources is likely to occur as a result of growth and development under the Plan. However, assuming that growth and development occurs in accordance with the goals, policies, implementation measures, and standards of the Plan, significant irreversible environmental changes will be minimized to an acceptable level.

3.16 GROWTH-INDUCING IMPACTS

Section 15126(g) of the *CEQA Guidelines* requires discussion of whether the proposed project will foster or encourage population growth. A classic example of a growth-inducing impact is construction of a wastewater treatment facility in a previously undeveloped area that may be intended to serve a specific development, but which, by its existence, might remove a barrier to the development of adjacent lands as well.

The *Glenn County General Plan* explicitly recognizes that growth and development are inevitable. Accordingly, it has been developed to allow for carefully regulated growth and development, while providing environmental protection and public services and facilities to support new development. Plan provisions are designed to reduce the environmental effects of growth to an acceptable level. In this sense, the Plan is intended to be *growth-accommodating* rather than *growth-inducing*.

3.17 CUMULATIVE IMPACTS

According to § 15355 of the *CEQA Guidelines*, the term cumulative impacts "...refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Individual effects that may contribute to a cumulative impact may be from a single project or any number of separate projects. Individually, the impacts of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulatively significant. A classic example of a cumulative effect may be a small residential development that is found to represent very minor incremental effects on roadway levels of service. However, if five other such projects were proposed and approved within a one-mile radius of that project, along with commercial facilities designed to serve these residential developments, levels of service at key roadway segments and intersections might be severely affected. Thus, CEQA recognizes the need to consider cumulative effects of projects.

By its nature, a county general plan consists of policies to regulate a multitude of diverse projects, which cumulatively, are certain to cause environmental effects. Consequently, this EIR is an assessment of the environmental effects under the Plan at full buildout, considering both existing and proposed development in accordance with the Plan. CEQA recognizes that the exact nature of many or most of the development projects that will be proposed under the Plan and their associated environmental effects cannot be predicted with certainty when the Plan and EIR

are prepared. The Plan can, however, set the "ground rules" under which development will occur, so that there is some control and general predictability regarding the secondary environmental effects that are likely to occur. Section 15146 of the *CEQA Guidelines* states the following with respect to the degree of specificity required of an EIR prepared for a general plan:

The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

- (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan...because the effects of the construction can be predicted with greater accuracy.
- (b) An EIR on a project such as the adoption or amendment of a...local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow.

Most of the impacts described above in this chapter were identified as potentially significant both directly *and* cumulatively. Those aspects of the environment that are typically *most* subject to cumulative effects are air quality, traffic, and biological resources, because virtually all projects will add cumulatively to air emissions, use of vehicles, and loss of habitat. Most projects will add to the burden on public facilities and services. Residential projects in particular will affect school capacity and other public services.

All of the direct and cumulative effects identified in this EIR will be mitigated through Plan provisions. Most of these effects are mitigated to an acceptable (i.e., less than significant) level by the goals, policies, implementation strategies, and standards of the *General Plan*. It is acknowledged that several impacts will not be mitigated to a less than significant level, including:

- **Impact #3.1-2:** seismic and geologic hazards
- **Impact #3.2-1:** flooding
- **Impact #3.6-1:** wildland and urban fires
- **Impact #3.7-1:** air quality

The direct and cumulative effects of geologic hazards, flooding, and wildland and urban fires will occur regardless of best efforts to eliminate them. The effects are potentially cumulative, because growth and development that will occur under the Plan will potentially expose more people and property to these effects. However, Plan policies will reduce these effects to the maximum feasible extent through building standards, adequate emergency response capabilities, and other measures. Cumulative air quality effects are inevitable, because emissions of *any* non-attainment pollutant into the atmosphere in any amount or concentration is considered to be a cumulative impact. While the *General Plan* has been prepared to achieve compatibility with the

local air basin Air Quality Attainment Plan, which will provide for gradual net reductions of these pollutants, each project will nonetheless contribute cumulatively to emissions of non-attainment pollutants. Although the effects will not be mitigated to a less than significant level until such time as attainment is achieved, it is important to emphasize that the Plan requires employment of those emissions control measures that are available and feasible.

Table 3.17-1

**TABLE 3-1
AGRICULTURAL LANDS IN GLENN COUNTY - 1988**

Land Use Category	Acres
Prime Farmland	173,565
Farmland of Statewide Importance	91,185
Unique Farmland	12,080
Farmland of Local Importance	136,186
Grazing Land	173,509
Urban Built-Up Land	5,190
Other Lands	253,587
Water Area	4,226
TOTAL	849,528

Source: Department of Conservation, Farmland Mapping and Monitoring Program, 1988.

Table 3.17-2

**TABLE 3-2
SUMMARY OF QUANTIFIED OBJECTIVES**

Income Category	Construction (CDO-1)	Rehabilitation (CDO-3)	Conservation (CDO-6,7)	
			Renter	Owner
Very-Low	139	14	36	20
Low-Income	108	11	28	15
Moderate	139	14	36	20
Above Moderate	275	29	N/A	N/A
Total	661	68	100	55

Table 3.17-3

**TABLE 3-3
NOISE LEVEL PERFORMANCE STANDARDS
FOR NEW PROJECTS AFFECTED BY OR INCLUDING
NON-TRANSPORTATION SOURCES**

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB	50	45
Maximum level, dB	70	65

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Source: Brown-Buntin Associates, Inc., 1992.

Table 3.17-4

**TABLE 3-4
MAXIMUM ALLOWABLE NOISE EXPOSURE
TRANSPORTATION NOISE SOURCES**

Land Use	Outdoor Activity Areas ¹ L _{dn} /CNEL,dB	Interior Spaces	
		L _{dn} /CNEL,dB	L _{eq} ,dB ²
Residential	60 ³	45	-
Transient Lodging	60 ³	45	-
Hospitals, Nursing Homes	60 ³	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60 ³	-	40
Office Buildings	60 ³	-	45
Schools, Libraries	-	-	45
Playgrounds, Neighborhood Parks	70	-	-

¹Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
²As determined for a typical worst-case hour during periods of use.
³Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Brown-Buntin Associates, Inc., 1992.

Table 3.17-5

**TABLE 3-5
EXTERIOR NOISE LEVEL STANDARDS**

Time Period	Allowable Equivalent Hourly Sound Level (L _{eq})
7 am to 10 pm	50 dBA
10 pm to 7 am	45 dBA

Source: Brown-Buntin Associates, Inc., 1992.

CHAPTER FOUR

SECTION 4 - GENERAL PLAN ALTERNATIVES

4.0 INTRODUCTION

Evaluation of project alternatives is an integral, mandatory part of the EIR process. Section 15126(d) of the *CEQA Guidelines* prescribes the following with respect to alternatives analysis:

Describe a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, and evaluate the comparative merits of the alternatives.

- (1) If there is a specific proposed project or a preferred alternative, explain why the other alternatives were rejected in favor of the proposal if they were considered in developing the proposal.
- (2) The specific alternative of "no project" shall also be evaluated along with the impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.
- (3) The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.
- (4) If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.
- (5) The range of alternatives required in an EIR is governed by "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

It is irrelevant to consider an alternative project location. Glenn County is required by law to prepare and adopt a general plan that applies to all lands under its jurisdiction. The geographic limits of the county are unlikely to change appreciably, except to the extent that spheres of influence or portions of those spheres of influence associated with the two incorporated cities may gradually be annexed. The Planning Area presently includes all county lands except those lands within the incorporated city limits of Willows and Orland.

Although large portions of the County are administered by federal agencies, such as the Department of Agriculture, U.S. Forest Service, and these lands are not subject to the *Glenn County General Plan*, both the California *General Plan Guidelines* and federal law and policy address the need for local governments and federal land management agencies to coordinate their land use activities. The Federal Land Policy and Management Act of 1976 states that, "Land use plans of the Secretary [of the Interior] under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act" (43 U.S.C. Section 1712 [1976] and 43 U.S.C.S 1712). Under California law, local governments are required to refer their general plans or substantial general plan amendments to "Any Federal agency if its operations or lands within its jurisdiction may be significantly affected by the proposed action, as determined by the planning agency" (Government Code Section 65352). Similarly, every effort will be made to assure that the *Glenn County General Plan* and the general plans of Willows and Orland will be mutually consistent.

Based on these conditions, it is reasonable to conclude that the geographic limits included within the Plan are somewhat unchangeable and that the County is required to adopt a general plan that applies to this stable Planning Area. Thus, an alternative project location will not be considered.

4.1 DESCRIPTION OF GENERAL PLAN ALTERNATIVES

It is the purpose of this analysis to determine whether any of the following *General Plan* alternatives is generally capable of achieving project objectives in a way that is more environmentally advantageous than the project per se, although the alternative need not be equally cost-effective nor equally capable of meeting objectives. Project objectives are stated in Section 2.4 of this EIR.

These alternatives were developed by County staff, a Citizens Advisory Committee formed to assist in *General Plan* policy steering, and the County's decision-makers, including the Planning Commission and Board of Supervisors.

This EIR will analyze the relative environmental advantages and disadvantages of four alternative *General Plan* scenarios in comparison to the "preferred alternative" described in Chapter Two of the *Policy Plan* (i.e., Volume I of this updated *General Plan*). The environmental effects of the preferred alternative are analyzed throughout Chapter Three above.

Population growth is one of the most important issues that affect land use planning. The Plan can neither predict nor control the county's growth rate. However, the Plan can strongly influence growth rate through its various goals, policies, and implementation mechanisms, including the *Zoning Ordinance*. Thus, in determining the planning course that the county wishes to set over the next 20 years, alternatives that tie various planning factors to different growth scenarios are most useful. Within the *Community Development Issue Paper* are three community development alternative scenarios, 1CD, 2CD, and 3CD. These are growth scenarios; each assumes a different average annual population growth rate (i.e., low, medium, and high) over the Plan's life (i.e., 1992-2012). Tied to each CD or growth scenario is an economic development (ED), public safety (PS), and natural resources (NR) scenario. The ED scenarios are presented in the *Community Development Issue Paper*, while the PS and NR scenarios are explained in the Public Safety and Natural Resources issue papers, respectively.

The 1CD scenario assumes an average annual 1.5 percent growth rate. The 2CD scenario assumes 3 percent, and the 3CD scenario assumes 5 percent. Under the 1ED scenario, the county would de-emphasize economic development, which along with other public policies, would discourage growth. The 2ED scenario is a *laissez faire* position with respect to economic growth and development in which the County would neither actively promote nor discourage economic development. Under the 3ED scenario, the County would actively promote economic development. The 1PS scenario would place a high emphasis on public safety issues, which might tend to inhibit growth and development by making development standards for public safety so high as to make it difficult for developers to meet these standards. The 2PS scenario would seek a balance between public safety and other planning concerns (i.e., the need for housing, jobs, and economic activity). The 3PS scenario would de-emphasize public safety concerns in order to stimulate greater economic activity. The 1NR scenario has a strong resource preservation tendency. The 2NR scenario would seek a balance between preservation and other beneficial land uses. The 3NR scenario tends toward fewer constraints on development *vis-a-vis* natural resource preservation.

As discussed elsewhere in this document, the "preferred alternative" or the "project" incorporates the 2CD/3ED/2PS/2NR scenarios. It assumes 3 percent annual growth and would actively and aggressively promote economic development while attempting to balance economic growth with public safety concerns and natural resource preservation.

4.1.1 ALTERNATIVE 1

Alternative 1 incorporates the 1CD/1ED/1PS/1NR scenarios. It thus envisions relatively slow growth, de-emphasizes economic development, places high emphasis on public safety, and is highly protective of natural resources.

Community Development (1CD Scenario)

Under the 1CD component of this planning scenario, the County would attempt to regulate population growth to achieve an annual average 1.5 percent growth rate. This would result in a countywide population of approximately 34,500 people by the year 2012, an increase of 9,200 people over the 20 year life of the Plan. This projection makes no distinction between incorporated and unincorporated area. If it is assumed that a constant 55.5 percent of the countywide population will continue to reside in the unincorporated area (as was the case in 1991), then unincorporated population would increase by approximately 5,100 people with the balance of the growth occurring in the two cities. Decisions made during the *General Plan* process can, however, direct that growth to specific areas of the county. For example, through the Plan, the County could direct growth to or away from the incorporated cities, to existing and future unincorporated communities, or to the foothills.

The absorption of 5,100 people over 20 years is a relatively modest undertaking by California standards. However, in the context of Glenn County's current population, it will be the equivalent of adding the City of Willows to the county population. It is most likely that such growth will be spread between Hamilton City (due to the Chico influence), the fringes of Willows and Orland, and potential planned communities along I-5, including Artois. It is unlikely that growth of any consequence would initially be shifted to the foothills due to lack of services and other infrastructure and the limited demand created by this relatively modest growth scenario.

The growth rate described under this scenario would create a demand for 1,500 to 2,000 additional jobs. Although commuters to the Chico area could be a substantial factor, the County will need to emphasize job creation and opportunities for industry to locate in the county to avoid a continuation of an historically high unemployment rate and a growing public assistance burden. It is assumed that agriculture will continue to dominate the local economy.

Based on 1990 Glenn County household size, the added population will also generate a demand for approximately 1,800 housing units in the unincorporated areas with an additional 1,450 units required in the two incorporated cities. This assumes current conditions in terms of household size and distribution of population between cities and the unincorporated area.

Although Glenn County's infrastructure is limited, it is likely that service providers could meet the demands suggested by this scenario and that financing mechanisms could be created that would allow the county to meet the cost of infrastructure and services required by additional development. Of concern is whether such a modest rate of growth will allow the county to attract development of sufficient scale and quality to be able to spread the cost of amenities and environmental protection suggested during the planning process, including buffer areas, open space, general upgrades in public services, and attracting a greater variety of retail shopping opportunities.

Environmental impacts of this scenario would be relatively modest. Fewer than 100 housing units a year will be required to meet demand. This, coupled with the range of opportunities available within the county for housing development, will permit the selection of sites with limited impacts on agricultural lands and natural resources. Total acreage needed to accommodate the projected growth should not exceed 1,000 acres, assuming relatively compact growth patterns. Emphasis on growth in the Hamilton City area does, however, require close attention to the effects of flooding on development and the impact such development may have on ground water recharge areas through overcovering and potential degradation of ground water quality.

Some relatively modest impacts to air quality and transportation facilities will occur. Cumulative air quality impacts must be addressed through expansion of alternate transportation modes. This will dictate a higher density development pattern and a need to locate development along major transportation corridors, such as I-5 and Highway 32. Some sections of Highway 32 are approaching unacceptable levels of congestion. Even modest growth will dictate improvements to the present roadway.

Properly managed growth would improve present economic conditions. However, the modest growth rate under this scenario may be insufficient to measurably alter economic conditions during the 20-year planning period, particularly if commuting to Chico for jobs and shopping intensifies.

Social effects would include expansion of job and housing opportunities. Increased activity could have some effect on the County's social service burden, but the rate of growth would be relatively modest and the effect also may be small. A comparison with the County's projected "fair share" of regional housing needs as reported by the Tri-County Area Planning Council reveals a greater demand in Glenn County for housing over the next five years than would be constructed under this alternative. The fair share allocation predicts 661 housing units will be required, while this alternative is premised on fewer than 500 units being constructed over a five year period. If the Tri-County Area Planning Council numbers are used in the *General Plan*, adoption of this alternative would lead to inconsistencies within the *General Plan*.

The cities of Orland and Willows anticipate a combined population increase of 11,041 persons by 2010. If these projections are accurate, a 1.5 percent growth rate underestimates future growth impacts on Glenn County.

Economic Development (1ED Scenario)

Under this alternative, the *General Plan* would discourage additional growth in Glenn County and its various communities. Within California and among some Glenn County residents, there is increasing concern that the State's very rapid growth in recent years has severely taxed the

capabilities of our public institutions and society in general to provide adequate public services and sustain a desirable quality of life. Growth projections for California fuel such concerns, since forecasted immigration and birth rates continue to place California growth, and many of its rural areas in particular, near the top of the national profile for population expansion.

Under the 1ED scenario incorporated into Alternative 1, Glenn County would withdraw funding and technical support for, and discontinue participation in, established local economic development and business promotion programs (e.g., the Tri-County Economic Development Corporation, Glenn Chamber of Commerce Economic Development, Inc.). No new economic development initiatives would receive County support, and overtures from outside agencies, such as the State Department of Commerce or private business interests, would be discouraged.

County land use designations and development policies included in the *General Plan* would reduce availability of sites for non-agricultural uses in the unincorporated area to a minimum. Some down-zoning of existing, undeveloped commercially and industrially-designated properties would occur. Policies applicable to the siting of dairies and other agriculturally-based new industries would be narrowed to discourage relocation of such facilities to Glenn County. The CEQA review process would be applied to the fullest extent possible to identify, establish and emphasize environmental concerns that might discourage new business development in the County.

Emphasis on preservation of the County's natural resources and open lands would take precedence over other land use policies. Urban limit lines around the incorporated cities and unincorporated communities in the County would be established and rigorously enforced to restrict land availability for new development.

The 1ED scenario might be characterized as a "no growth" philosophy. Throughout California, this philosophy has found voice in recent years among citizens fearful that the historic influx of population and business into the State has compromised our ability to support even basic public services and has contributed significantly to virtually irreversible environmental damage. No-growth initiatives proliferated on the ballots of many jurisdictions in the late 1980s with mixed results. California's growth-related challenges have become a central focus for both the executive and legislative branches of State government.

Undoubtedly, a "no growth" posture by the County would discourage significant industrial, commercial or other economic development in Glenn County. There are literally several thousand localities throughout the western United States aggressively recruiting new business development under local policies that accommodate and encourage such development. Moreover, in the current recessionary environment, given a perception, true or not, that California is an anti-business state, the number of new or expanding business opportunities that might otherwise be attracted to Glenn County is somewhat limited to begin with. It is much less likely, therefore, that appreciable new industry or business would locate in Glenn County under this alternative.

As discussed in the *Natural Resources Issue Paper*, policies under the 1ED scenario would benefit the Glenn County environment. The County's natural resource base would be protected from the effects of development, and lands committed to agricultural uses would not be as pressured by encroaching non-agricultural development. No significant changes are likely to occur in existing environmental conditions and community character under Alternative 1 population growth and economic development scenarios.

Offsetting such perceived benefits and advantages would be the persistence of comparatively high unemployment, low family and per capita income levels of that portion of the County's population dependent on public assistance programs. It may be increasingly difficult to finance basic, essential public services with proportionally diminishing fiscal resources at the County and city levels. Quality of life in Glenn County, in terms of economic access to goods and services and standard of living, may gradually erode under this alternative. Moreover, many services and amenities identified by Glenn County residents as desirable, but presently lacking in the County, would not be likely to evolve over time.

Arguably, the no growth approach to economic development in Glenn County offers net benefits to some segments of the County's population. Their environment and lifestyles would not change significantly from existing conditions currently satisfactory to many county residents and the general population of rural California and the West as a whole. Vast open spaces and agricultural lands would remain largely unaffected as aesthetic and productive amenities. At the same time, substantial portions of the County's population are likely to suffer increasing economic and social hardship under this alternative, ultimately compromising the quality of life for virtually all County residents.

Public Safety (1PS Scenario)

This scenario assumes that public safety will be of sufficient concern that many proposed development projects will be economically infeasible. There would be a strong bias against changing the way that public safety services are delivered, and existing organizations and institutions that provide such services would remain in place. Efforts to consolidate services or create new mechanisms for delivery of services will be unpopular and will remain untried. Growth will be resisted as present institutions fear they will be incapable of accommodating growth and change. Concerns for public safety are often a proxy for broader concerns about growth in general and its effects on present community character and quality of life.

Shifting growth to new communities or foothill areas will be difficult as agencies focus on present plans and capabilities without searching for new means to fund services and taking advantage of potential opportunities to create economic activity. As a means to combat unwanted growth, costly public safety standards and regulations for geologic hazards, flooding, water quality, noise and hazardous waste may be advocated, which could cripple economic development. Air quality concerns will extend beyond those identified in approved air quality attainment plans and relatively undefined perceived air quality impacts may become the basis for turning away economic development opportunities. Alternative forms of transportation will be

emphasized to reduce air quality problems, even though their economic viability may be many years away.

The IPS scenario would severely constrain economic development in the County. It would essentially assure the status quo, with little institutional change and little change in the present economic mix. Most proposals that fostered change would likely be defeated under the theory that present institutions cannot support the change or that such change would result in irreparable harm to the environment.

Without question, the County's physical environment will undergo less impact in the short-term and long-term under this scenario. Less growth will mean less exposure to seismic activity, less air quality degradation, less waste to dispose of, less noise generated, and less need to disturb floodplain or other sensitive areas.

The social effects are less encouraging, both short-term and long-term. A policy that places such great emphasis on public health and safety will not permit much growth or economic development, and the problems of employment opportunity and general lack of economic activity will continue. In the long-term this protectionist posture will exacerbate the problem. Quality of life in Glenn County, if viewed in terms of economic opportunity and standard of living, will likely diminish under this scenario. Present institutions and ways of life will, however, be protected and perpetuated. These values must be weighed against the relative attractiveness and value of other opportunities, particularly economic opportunities.

Natural Resources (1NR Scenario)

Under this alternative, emphasis is placed on preservation of natural resources, and planning decisions are based on benefit to the natural environment. Local economic and social consequences are de-emphasized, while greater importance is placed on preserving natural features, fish, and wildlife on behalf of the larger public interest. The priorities of various State and federal agencies that are attempting to preserve and restore wetlands and other natural areas in Glenn County would be adopted as local priorities. Production agriculture, although important in any preservation scheme because of its open space value, would play a secondary role to efforts to restore the natural environment. Additional lands would be removed from the tax rolls, as public agencies, including the County, play a larger role in direct land ownership and management for the benefit of natural areas and species.

The Williamson Act would receive strong support under this scenario and would be used to retain agricultural and open space land in a relatively undeveloped state. Few, if any, exceptions would be made to accommodate other forms of development. Dairies would be approached cautiously under this scenario, due to concerns about the potential for surface and ground water contamination and air quality problems that may be associated with dairies.

Urban limit lines would be established and strictly enforced in an effort to contain development within existing urban or urbanizing areas. Rural residential development would be discouraged and severely limited to protect the county's open space lands. Exclusive agricultural zoning would remain in place and strengthened to assure that agricultural land is not converted to non-

agricultural use or divided into parcels too small to be of value for agricultural non-agricultural open space.

Export of ground and surface water would be prohibited, and local water use priorities would emphasize wildlife as opposed to agriculture and urban use. Ground water recharge areas would be carefully protected, and most forms of development would be prohibited in such areas. Watershed areas would also be given special attention, and most activities would be prohibited on steeply sloping terrain. It is unlikely that additional reservoirs would be constructed in Glenn County.

The development of habitat conservation plans pursuant to the federal Endangered Species Act would be strongly endorsed along with preserving large areas or systems for the benefit of wildlife. A riparian zone management plan would be developed for Stony Creek and the Sacramento River and the E-M (Extractive Industrial Zone) land use designation would be eliminated. Aggregate mining would be closely regulated and would only be permitted if it could be shown that all significant environmental impacts could be mitigated, including reclamation of mining sites to a natural condition after mining.

Hunting opportunities would be encouraged, but closely monitored, due to the common interest of hunting groups in preservation and restoration of natural areas. Membership would be sought in the Sacramento Valley Bioregion Regional Council, and the group's efforts would be strongly supported.

Timberlands would be left to heal and regenerate after what has been a long period of overcutting. Other development on timberlands would be discouraged due to the impact they may have on watershed lands and wildlife. Public acquisition of inholdings on the Mendocino National Forest would be viewed positively as beneficial to forest resources management.

Gas well exploration would be permitted as long as activity did not encroach into natural areas or other areas inhabited by sensitive plant and animal species. Energy conservation would be given a high priority. Infill activity, clustering and alternative forms of transportation would be strongly supported to conserve energy and land. Remote development would be discouraged, and a jobs/housing balance would be sought for all new development to reduce travel and energy use.

An historic preservation plan and scenic highways system would be authorized and implemented. Cultural resource surveys would play a more prominent role in decision-making.

The INR scenario would be very beneficial to the natural environment in Glenn County, assuming that funds could be found to carry out the numerous programs and also maintain County government. County revenues would undoubtedly decline as additional land and value is removed from the tax rolls. Service obligations, however, may also be relaxed, as development that occurs is forced into compact, higher density patterns in proximity to existing developed areas.

The extent and importance of agriculture would likely decline without being replaced with economic activities of comparable value. Because jobs would also be lost as agriculture and growth opportunities declined, social consequences would be considerable. Fewer jobs would be generated and burdens on social service agencies would likely increase, with fewer dollars available to County government to pay for those services. An alternative that emphasizes preservation without also creating new economic opportunities may have long term adverse consequences, including an inability to maintain this approach without impoverishing the County. Short-term impacts will be more difficult to determine, since the various programs and impacts described are incremental in nature. The full impact of some actions will not be known for several years.

Quality of life in Glenn County, if viewed in terms of economic opportunity and standard of living, will likely diminish under this scenario. However, if viewed from a broader perspective, some citizens may regard protection of fish and wildlife, wetlands and other natural features for the enjoyment of present and future generations as being beneficial to quality of life. Other environmentally positive aspects of this approach include concentric and compact growth concepts as well as energy conservation measures. In general, however, the approach may not provide sufficient benefits on which Glenn County can stake its economic and social future.

4.1.2 ALTERNATIVE 2

Alternative 2 incorporates the 2CD/2ED/2PS/2NR scenarios. This alternative is very similar to the preferred alternative, analyzed in Chapter Three, except that it plots a less aggressive course with regard to economic development.

Community Development (2CD Scenario)

The 2CD scenario under Alternative 2 assumes a 3 percent annual growth rate resulting in a countywide population of approximately 47,000 people by the year 2012. This is an increase of 21,700 persons over current population. Although this may appear high in the context of Glenn County, it is not unrealistic, based on growth trends and projections in growing areas of California, and is consistent with Glenn County's growth rate during the past three years. For comparison, the City of Willows assumes a growth rate of 2 percent, while Orland projects a growth rate as high as 5 percent. No distinction is made in this figure between incorporated and unincorporated area population. Assuming the same population distribution (55.5 percent unincorporated population) as in 1CD, approximately 12,000 additional people would reside in the unincorporated area, while the two cities would gain another 9,700 persons. A decision on how much of this growth is to be direct to unincorporated areas must be made prior to adopting the *General Plan*. The two cities anticipate a regulated increase of 11,041 people, or slightly more than 50 percent of the projected growth, over the next 20 years.

Accommodating 12,000 additional people in the unincorporated area will be a much greater undertaking than that described in Alternative 1CD. It is assumed that much of the growth will be concentrated in the Highway 32 corridor and, to a lesser degree, in the vicinity of Willows and along I-5. The amount of growth suggested by this scenario may be sufficient to generate

interest in foothill development, if infrastructure and service costs are addressed through Mello-Roos district formation or other financing mechanisms.

The demand for new jobs generated by this scenario will approach 5,000. Again commuting to Chico may partially offset in-county demand for jobs. If the county sets a course that results in a 3 percent growth rate under this *General Plan*, it is obvious that the Plan must include a strong strategy for job development and economic diversification. If not, the county could end up with a substantial unemployment problem and social service obligation. Agriculture's role in the overall economy will be somewhat diminished under this scenario but will remain dominant.

More than 4,000 additional housing units will be required in the unincorporated area under this scenario to meet demand, and an additional 3,500 housing units will be required within the two cities. Acreage to accommodate unincorporated area growth will be approximately 2,000 acres, although this cannot be determined with any precision until densities and other development standards are established. Urban limit lines and other growth areas must be able to accommodate the projected population and must be shown on the Land Use Diagram.

The growth anticipated by this scenario will have considerable impact on the county and will change the character and scale of present communities. It will require a concerted effort to upgrade and expand infrastructure and services. In order to generate funds to operate County government, a financing plan must be in place that requires developers and future residents to pay for these costs. In addition, the County must be careful to assure that jobs and other revenue generating activities accompany housing so that the unincorporated portions of the county simply becomes a cheap place for people to live, while they work and shop in the incorporated cities and adjoining counties.

At least 200 housing units will be needed each year under this scenario. This should not present a substantial burden to the County if properly planned for, including a government service financing plan and use of urban limit lines to control scattered growth. Approximately twice the acreage will be needed for development under this scenario as the 1ED scenario. However, adequate sites are available without undue impact on other activities. In the Hamilton City area and elsewhere, larger areas subject to flooding or utilized for ground water recharge will become subject to development pressure. Air quality and transportation impacts will increase, and considerable attention must be given to jobs/housing balance and alternative transportation to reduce vehicular trips and the resultant impacts on air quality and roads. Planning should focus on greater utilization of the I-5 Corridor where sufficient capacity exists for additional trips.

The assumed growth rate will generate considerable in-county economic activity over time if the county can capture the jobs and retail sales that accompany such growth. The growth rate will not, however, create a "boom" environment, as it remains relatively modest by most measures.

Social effects will include a more job and housing opportunities compared to the 1CD scenario. Growth should be brisk enough to attract larger scale development that can afford to include some desirable amenities and features, particularly those that protect and enhance the

environment. Growth of this scale will undoubtedly have some positive effect on the County's social service burden as new opportunities for housing and employment arise.

Economic Development (2ED Scenario)

This alternative would create a policy framework in Glenn County that would be more accommodating toward economic development activities and business expansion; however, it would not provide for active County participation in, or support of, economic development initiatives and programs. Given limited County resources, the 2ED scenario in the *General Plan* effectively would welcome and accommodate new business and economic growth. Those Glenn County citizens and organizations that want to recruit those businesses and industries would have the County's good wishes. But the County would not be able to provide money or other material assistance to actively recruit commerce and industry.

Under this scenario, Glenn County would adopt land use and development policies, General Plan and zoning designations favorable to new commercial and industrial development. Sites along I-5, near the airports, in Hamilton City, and elsewhere would be targeted for industrial and commercial development when surrounding conditions and infrastructure potential would render such uses feasible and appropriate. Private sector initiatives for such development would be received favorably by the County, and the creation of employment or tax-generating land uses would be encouraged and facilitated by staff cooperation and decision-maker support.

The County would nominally support Glenn Chamber of Commerce Economic Development, Inc., the Tri-County EDC and other economic development programs and activities, but would not contribute funds, technical support or other material assistance. A perception that the County was actively involved in economic development or business recruitment would be avoided.

No other potential County investment in infrastructure improvements, recreational facilities, planning efforts or other activities that would encourage business and economic development in Glenn County would be made. The County's approach to economic development would be strictly reactive, rather than proactive.

Under the 2ED scenario, Glenn County may find the occasional project materializing that helps boost the local economy. The efforts of The Tri-County EDC, Glenn Chamber of Commerce Economic Development, Inc., the State of California and others to promote local economic development would inevitably attract some new business activity to the County and its communities, even without active County support. County commitment, and even County funding, are invaluable assets to local economic development efforts and initiatives, however, and their absence would certainly somewhat reduce the extent and potential effectiveness of such programs in proportion to their capacity to succeed with such County support.

Under this scenario, it is possible that some progress would be made on the existing high unemployment rate and seasonal fluctuations in employment and income generation. It should be acknowledged that some population growth and corresponding increases in traffic, housing demand and other environmental impacts would occur as well. Demands for municipal and

County services would be likely to increase, potentially without offsetting increases in local government revenues to help fund such services.

Given current trends, it seems likely that an outcome of the 2ED approach would be continuing expansion of housing in Glenn County, given its comparative affordability, to support households of persons employed in nearby Chico. The acknowledged liability of a jobs/housing ratio imbalance that would potentially evolve under such a scenario is the service requirements of residential land uses with disproportionately small revenue-generating capabilities to pay for those services under existing local financing structures.

Public Safety (2PS Scenario)

The 2PS scenario attempts to balance public safety needs against the need to foster new economic activity. Means would be sought to accommodate new development, while providing for reasonable protection of public health and safety. In this effort, institutional change would be actively pursued to meet demands of changing social, economic, and environmental conditions.

Consolidation of services would be explored and achieved where more cost-effective or efficient service delivery patterns would result. The County would assume a role in service areas where it had not previously participated, if necessary, to improve service levels. Paid fire personnel would be added in urbanizing areas, and urban fire departments would be considered. Consolidations of police services in urbanizing areas would also be explored, either through annexation or other service agreements. Financing for services, as well as needed capital outlay, would be built into new project approvals to assure adequate levels of service while accommodating new development. The latter could be accomplished in part through service impact fees and financing mechanisms, such as Mello-Roos.

New communities would be permitted as long as the necessary financing and physical safeguards were built into the development, including appropriate measures to protect development from flooding and wildland fires. Appropriate standards sufficient to protect development from various geologic and water quality hazards would be adopted and applied to all new projects. Adopted air quality attainment plans would be implemented and necessary steps taken to encourage alternative transportation, where feasible, as well as jobs/housing balance, to avoid degradation of the County's air resources. Source reduction of solid and hazardous waste would be encouraged through the many programs outlined in the applicable plans, and the County would be actively involved in source reduction efforts.

The 2PS scenario recognizes the legitimate concerns of public safety and actively seeks solutions to identified problems, including institutional change and new sources of financing. It assumes the County will play an active, direct role in solving public safety service problems and will facilitate change and consolidation of responsibility, when appropriate. While recognizing public safety concerns, growth and new economic activity are seen as vital to the County's future. Means would be sought to accommodate development in accordance with County plans.

Emphasis is placed on finding ways to finance change and growth for the future, and some risk is assumed in order to expand economic opportunity. Short-term and long-term environmental impacts include more land utilized for development than would be the case if public safety concerns were used as a basis for discouraging growth. Because additional growth can be accommodated under this scenario compared to the IPS and other Alternative 1 scenarios, there is greater environmental risk, which may include development in high fire, flood, or geologic hazard areas. The County must have adequate, yet reasonable standards and regulations in place to assure that hazards are mitigated. To accomplish this, the County must be willing to form various financing and maintenance districts to deal with safety issues as they arise.

There is also the potential for an increase in noise levels and air quality impacts. Implementing a reasonable set of noise and air quality standards that are compatible with those of other jurisdictions should mitigate concerns to an acceptable level. Additional space and methods will be required for waste disposal. Adequate fees must be charged for this service, and emphasis must be placed on source reduction.

In comparison to Alternative 1, balancing safety concerns with economic development opportunities should have long-term social benefit. In the long-term, unemployment should be reduced, and greater choice of goods and services should become available. Greater opportunity for younger persons to remain in Glenn County will prevail and the general quality of life should increase. Short-term benefits will also result from increased development activity. There are, however, trade-offs. More people bring greater service burdens, and changes in the manner that institutional activities have been carried out are required.

This scenario requires a proactive approach to problem identification and solution. It assumes people are constantly looking for better ways to do things. Although tradition will always have its place, the challenges of the future will require change as well.

Natural Resources (2NR Scenario)

In general, the approach strikes a middle ground with respect to natural resources preservation. As under the 1NR scenario and Alternative 1 generally, the County would take an assertive leadership role in shepherding its natural resources. However, a balance would be maintained that would allow for a reasonable degree of environmental protection, while providing sufficient flexibility for physical and economic growth. Decisions concerning preservation of natural areas would be influenced more by local priorities than those established at the State and federal level. Strong protection measures would be built into various forms of economic activity, but the emphasis is on finding ways to preserve agriculture and accommodate growth and development, while still protecting significant natural areas of Glenn County. Dialogue and cooperation with other levels of government would be stressed and agreement sought on limits of land acquisition activities.

The Williamson Act would receive strong support under this scenario in recognition of its value in preserving agricultural lands. Areas along the I-5 Corridor and adjacent to growth centers, however, would be examined to determine if the use of certain lands for other forms of economic

activity outweighs their present agricultural value. Full reimbursement of tax loss resulting from Williamson Act implementation would continue to be a high priority. A dairy attraction program, along with other efforts to diversify the county's agricultural sector, would be pursued, recognizing that standards for siting and developing dairies need to be carefully crafted to assure that environmental problems are avoided.

Urban limit lines would be an important tool under this approach, permitting communities to shape and contain urban development so that minimal high value agricultural lands would be disturbed and natural areas are avoided. The concept of infill would be promoted, but it is also recognized that peripheral expansion provides unique and competitive economic development opportunities. Rural residential activity would be confined to established developed areas on the valley floor, and foothill areas would be examined as possible alternative locations for large lot homesites. The concept of "new towns" is endorsed under this alternative as long as sites under consideration are adequately buffered from agriculture and natural areas and have no adverse impact on these resources. To assure compatibility, extensive pre-planning of such communities would occur, including development of specific plans. Other agricultural land preservation tools would be utilized, when appropriate, to retain agricultural land, including transfer of development rights, conservation easements, exclusive agricultural zoning and minimum parcel sizes.

Export of ground and surface water would be discouraged under this alternative. Local domestic and agricultural use of water would be given the highest priorities. Ground water recharge areas would be carefully protected, and proposed development in such areas would be closely reviewed to assure that excessive overcovering does not occur and that the risk of aquifer pollution is minimized. Septic systems would be discouraged in such areas, and sewage collection systems would be planned where densities warrant.

Watershed areas would be protected through adoption of development standards on such lands. Development on steeply sloping terrain would be discouraged. New reservoirs would be given consideration under this scenario where potential adverse impacts could be mitigated.

The County would work with wildlife agencies and groups to identify critical habitat in Glenn County. A variety of tools would be used for its protection, including purchase in some instances. Agreement would be sought on areas needing protection and the level of protection required. A plan would be developed, publicly debated and ultimately adopted by all parties. Membership would be requested on the Sacramento Valley Bioregion Regional Council in order to protect Glenn County's interests. Any plan, including acquisition of fee title or farming rights, would include a mechanism for reimbursement of local tax and economic loss.

Riparian areas would be afforded protection and the E-M (Extractive Industrial) Zone would be eliminated or modified to provide greater protection to Stony Creek. Aggregate mining would continue to be treated as an integral part of the county's economic mix. However, standards for such activity would be carefully reviewed, and adequate reclamation plans and securities would be required.

Hunting opportunities would be expanded in the county to the extent practical. Strong support would be given to pay-to-hunt enterprises, and agriculture would be encouraged to include fish and game management in its land steward activities. Flooding of rice fields in winter months would be supported, not only to provide habitat for wintering waterfowl, but also as a possible alternative to rice straw burning.

Timberlands would be viewed from a multiple use perspective. Recreational and other non-timber uses of private timberlands would be considered and encouraged, subject to a determination that the development poses no unmitigated service burdens on the County and does not harm the watershed. Public acquisition of inholdings by the National Forest would be resisted, due to the loss in property tax revenues to the County.

Continued development of gas fields would be encouraged, and energy conservation in building construction and community design would be promoted. Infill, clustering and alternative modes of transportation would be considered and implemented, where feasible, but not to the exclusion of other forms of development and movement.

Historical preservation, scenic highways and cultural resource protection and recovery would continue to be discussed, with decisions made at some future time regarding their relative priority in Glenn County.

The 2NR scenario recognizes that both use and protection of natural resources are important to the County and the well-being of its residents. Priorities are established under this scenario that provide for growth in the local economy and that focus on quality of life for county residents. Priorities established by other levels of government, although recognized and dealt with realistically, are critically analyzed in terms of benefit or harm to Glenn County. Changes in those priorities and compensation for their impact is pursued.

Over time, County revenues would increase under this scenario as compared to the 1NR scenario. Short-term impacts would be difficult to measure, but long-term impacts should be positive. Service impacts to the County and districts will, however, increase with the potential for service demands in areas not previously requiring services.

In comparison with the 1NR scenario, additional agricultural land will be lost to urbanization, and some land now under Williamson Act contracts may be removed. Conflicts with agricultural operations may increase, and less area will be permanently set aside for fish and wildlife. Although agriculture may lose some acreage, it is not anticipated that it would decline in any significant sense. New high value agriculturally related activities, such as dairies, would be attracted to the County, which would help offset the value of land lost to other uses.

Some existing natural areas may be lost. However, it is envisioned that substantial area will be preserved, based on agreement among the various agencies and the County. Growth may be somewhat more scattered than under 1NR, and this will have some additional impact on natural resources.

Additional jobs would be generated under this scenario as compared to the 1NR scenario, and burdens to social service agencies should decline, proportionally. Communities should become more attractive places to live as the County applies higher standards to development and more jobs are generated.

4.1.3 ALTERNATIVE 3

Alternative 3 incorporates the 3CD/3ED/3PS/3NR scenarios. As compared to the preferred alternative, this alternative would seek to foster and accommodate a higher annual growth rate. Economic development would be pursued as aggressively as under the preferred alternative and more aggressively than under Alternatives 1 and 2, but with relatively less emphasis on public safety and resource preservation.

Community Development (3CD Scenario)

The 3CD scenario assumes a 5 percent annual growth rate. This is comparable to the growth rate assumed by the City of Orland for a similar planning period and is consistent with growth rates elsewhere in the State, although maintenance of such a growth rate over a 20 year period is problematic. Approximately 43,000 people could be added to the county's population base under this scenario, bringing the total county population to approximately 68,000. If the unincorporated area share is assumed to be 55.5 percent of the total, 24,000 people could be added, tripling the population of the unincorporated area. Growth in the two cities under this scenario exceeds present projections by several thousand people.

This scenario must assume that substantial improvements will be made to Highway 32, including bypasses for Orland and Hamilton City. As in the 2CD scenario, it may be desirable to focus development along I-5 and consider a large integrated development in the foothills. The growth suggested should justify serious consideration of a foothill alternative and should make infrastructure and services financing feasible.

As many as 10,000 additional jobs could be required over the life of the Plan to accommodate the growth. Butte County may partially fill this need if job generation is not actively pursued in Glenn County, leaving the County with service burdens and inadequate income to cover its costs, resulting in little direct benefit to the County from the growth. Agriculture's dominance in the local economy will be diminished considerably under this scenario; however, the actual amount of land required for development should be less than 4,000 acres, leaving substantial acreage available for agricultural production. This acreage calculation does not include land necessary for development within the two cities.

Approximately 8,500 new housing units will be required to meet demand in the unincorporated area, necessitating careful planning and regulation of growth to assure that substantial problems, including housing shortages and budget problems, are not created. An additional 7,000 housing units will be required within the two cities.

Approximately 425 housing units must be added annually in the unincorporated area under this scenario. This is more than twice the number presently constructed. The scale of growth

depicted by this scenario will have a significant effect on present communities and will generate considerable demand for establishment of new development areas along I-5 and, perhaps, the foothills. The need to plan properly and to upgrade and expand infrastructure will be magnified, as will the need to assure jobs/housing balance in the County. Unincorporated growth will consume approximately 4,000 acres of land presently devoted to other uses and incorporated growth will require another 3,000 acres.

As under other scenarios, it is likely that growth will focus along Highway 32 and I-5, resulting in severe traffic problems without Highway 32 improvements. Air quality problems will be magnified and alternative transportation systems will be a necessity. The conflict in flood areas and ground water recharge areas will be magnified. Conflicts over resource use within the county will undoubtedly arise as the non-farming population requires more water, more land and worries more about the impacts that agricultural practices have on the environment. Political power will shift away from agriculture and will rest with newer residents of the area with few ties to agriculture. Commuting to Chico will be prominent regardless of the County's efforts to create jobs, due to the presence of California State University, Chico, and the fact that growth and activity in Chico will undoubtedly accelerate along with growth in Glenn County.

Significant economic activity will be generated by this scenario; however, the County may not be able to sustain the level of activity described for 20 years continuously. Considerable speculation in undeveloped land will occur, harming agriculture in some instances.

As under other scenarios, social effects include a broadening of job and housing opportunities. However, the boom and bust potential could result in over-building, accompanied by layoffs and high unemployment. Schools and other service providers will have difficulty keeping pace with growth, leading to overcrowding and less than optimum conditions. The growth rate will result in large-scale, fully integrated developments that will improve the quality of development and allow for features and amenities only possible in large-scale undertakings. This assumes the County has plans and standards in place to guide developers. Because of the substantial population growth, the County's retail mix will be greatly enhanced, keeping more shoppers at home.

Economic Development (3ED Scenario)

The 3ED scenario is the same economic development strategy provided for under the preferred alternative. The County would expand its role as an active participant in and supporter of the local and regional economic development processes. Under this scenario, the County would establish a pro-growth economic policy framework in its *General Plan*, giving reasonable priority to employment-generating land uses over natural resource preservation, agricultural land utilization and other environmental concerns, possibly including public safety. The County would also contribute funding and staff resources to active economic development programs and initiatives operating on behalf of Glenn County and the region.

General Plan and zoning designations would establish sites for employment-generating commercial and industrial land uses at appropriate key locations, such as along I-5, at the

airports, in or near Hamilton City, and at other sites where infrastructure and other factors indicate feasibility. The County would implement public improvements (e.g., road improvements, wastewater disposal, etc.) supporting commercial and/or industrial development.

County officials would actively participate in the activities of Glenn Chamber of Commerce Economic Development, Inc., the Tri-County EDC and other local and regional economic development and business promotion organizations. County funding and technical support would be provided at appropriate and affordable levels to such organizations. County contact with the State Department of Commerce and other outside agencies would be established and maintained to ensure that Glenn County is informed and represented on regional and Statewide business development opportunities.

Processing of applications for employment-generating projects and new businesses by the County would be expedited by County staff through the decision-making hierarchy. Staff would afford project applicants all reasonable and feasible technical assistance in processing applications. The County would promote local business by purchasing local goods and services whenever possible, through a cooperative regulatory enforcement environment, and by providing adequate public services.

This alternative can best be characterized as a very proactive County approach to economic development. The County would be a key participant in local economic and business development initiatives and would project a pro-growth and pro-business attitude.

The intent of the 3ED scenario is an approach that would promote the greatest new industrial and business development in Glenn County. To the extent that such development occurred, the County would experience the inevitable related consequences of growth: new population, conversion of open and agricultural lands to urban uses, increased demands for public services, traffic and other environmental and social effects. Accompanying such development, however, should also be more jobs for County residents, less seasonal fluctuation in employment, and more revenue available to meet growing public service demands.

A proactive County and an active and competent economic development program, however, are not enough to ensure that industrial growth and business development will materialize. Economic development and business recruitment occur in a highly competitive environment throughout rural California, and the number of new or expanding businesses that might locate in California is small in proportion to the number of jurisdictions and geographic regions that would welcome them. However, active and effective local business recruitment and retention programs are far more successful in generating economic expansion with its corresponding benefits in a pro-business environment than in those areas that are anti-growth or *laissez faire*.

Among Glenn County's economic goals (see Section 5.3.5 of the Policy *Plan*) are to:

- stabilize and diversify the county economy
- retain and expand existing businesses and industries

- attract new commerce and industry
- attract more business dollars from outside the county
- create new employment opportunities for county residents
- prepare the local work force for an expanding job market through job training and education programs
- increase average per capita income
- promote economic development through coordinated efforts by County and economic development groups working throughout the region
- expand and diversify the tax base while attempting to minimize social, environmental, and fiscal effects

The County has determined that the 3ED scenario would provide the best opportunity to achieve these goals. Accordingly, this scenario is not only incorporated into Alternative 3, but would also represent the economic development strategy under the preferred alternative.

Public Safety (3PS Scenario)

Under this scenario it is assumed that capturing economic development takes precedence over perceived safety concerns. Existing service providers would remain in place and struggle to meet the demands of growth and development. Few additional revenue programs would be implemented for fear of dampening development activity. As a consequence, service levels decline.

There would be reluctance to adopt new standards and regulations to protect property and people from safety hazards, including fire, flood, noise, crime, air and water pollution for fear that they would increase the cost of development and make Glenn County less competitive. Jobs/housing balance and alternative forms of transportation to improve air quality would receive little priority in decision-making, even though remote development, including new communities, would be entertained.

The County would view its role in public safety as limited, deferring to the actions of others. Little effort would be expended on institutional change, with individual agencies left to cope. Fragmentation of responsibility would compound as growth continues, and problems in public safety service delivery would be commonplace.

From an institutional perspective, this scenario is similar to the 1PS scenario. The difference, however, is that under IPS, limited growth allows agencies to continue to cope. Under this

scenario, the agencies will ultimately break down and the public will demand change or revert to an Alternative 1PS approach to solve the problem.

Environmental impacts under this scenario will be most severe as growth proceeds unconstrained by safety concerns. Resulting development patterns will have a greater impact on air quality and be subject to greater potential geologic, flooding, and wildland fire risks. The lack of new revenue sources will compound environmental impacts as potential mitigation measures go unfunded. Long-term financial burdens will be created for the County as areas require remedial action and protection years after the development is complete. This can include drainage facilities, water supplies to meet fire flow requirements, and access improvements, among others.

Social impacts may be positive in the short-term as development proceeds unconstrained by safety concerns and costs, resulting in greater economic activity and more jobs. Long-term, however, the costs that will ultimately be borne by the public to correct problems created through poor development practice or under-funding of services will be substantial and may result in a backlash against further economic expansion. Inattention to safety concerns can expose the County and its citizens to substantial claims by property owners who believe they have been harmed through the County's lack of diligence when approving new development. Issues that may arise include failing septic systems, unstable building sites, and exposure to destructive fires. Although such problems may not surface in the short-term, the long-term impacts can be substantial to the County's financial resources and credibility.

Natural Resources (3NR Scenario)

This scenario places emphasis on consumption and use of natural resources. Efforts to preserve natural areas, regulate aggregate mining and export of ground and surface water would be given very low priority. Cooperation with State and federal agencies would be limited as Glenn County maintained its independence. Less regulation would be viewed as preferable to more regulation.

The County would continue to administer the Williamson Act, although the County would permit easy cancellation by individual property owners. Agriculture would also continue to receive support; however, the County would neither work to preserve agricultural land nor to remove it from protection, allowing individual property owners to make those decisions. Present agricultural zoning could be weakened through amendments and variances at property owner request. Dairies would be encouraged to locate in Glenn County, but less attention would be paid to standards and locational criteria.

Urban limit lines would be given limited support, but the form and character of urbanizing areas would be decided to a great degree by individual developers. Most growth would be peripheral and scattered, with the cheapest land being sought out for development. Adequate service levels would be an afterthought in many instances, and the County and districts would generally struggle to provide services retroactively. Cumulative impacts would be a significant

unmitigated problem. Natural areas would play a limited role in County decision-making, and State and federal agencies would necessarily have to take the lead in their preservation.

Export of water resources would be debated, but steps to curtail export would be very tentative at the local level. Ground water management and other regulatory approaches to water resources would be resisted in the county. Water use priorities would be set by individuals competing for water and by State and federal agencies.

Decisions concerning watershed protection would be left to the National Forest and other federal agencies. The County would be reluctant to adopt additional standards regulating development of foothill and mountain lands. The County would strongly oppose the removal of land from the tax rolls by State and federal agencies, and communication with such agencies would be limited.

Ground water recharge areas would be viewed as potential impediments to development, and their protection would be of secondary importance. Aggregate mining would continue along historic patterns with few regulatory changes. Hunting, forestry and gas well activities would be regulated by the State with little local input. Energy conservation measures would be promoted to the extent they were mandated by State and federal law.

This scenario may be somewhat inconsistent with contemporary public opinion regarding resource conservation. Although in the short-term, additional revenues will be generated locally, in the long-term, this policy framework would have a negative effect on the Glenn County environment and aspects of its quality of life. For example, overuse of timber resources has been reported as responsible for the economic decline in Northwest timber-producing regions. That region enjoyed short-term employment benefits and revenues, but the long-term damage to the resource base and lack of employment opportunities after resources are consumed will more than offset these earlier gains.

The cost of services will increase under this scenario as development occurs in discontinuous, haphazard patterns with few policy measures to recoup those costs. Residents will have to drive longer distances for goods and services as scattered development occurs, with impacts to air quality and increased energy use.

Without cooperation with State and federal agencies working to protect the natural environment of Glenn County, it is likely that the end result of adopting the 3NR scenario will be even less satisfying to Glenn County than it would be with County participation. This is not only true in connection with wildlife preservation, but also with regulation of other resources, such as timber, ground water, and natural gas.

4.1.4 ALTERNATIVE 4 — NO PROJECT

Section 15126(d)(2) of the *CEQA Guidelines* requires consideration in an EIR of the "no project" alternative. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Under this alternative, the status quo would be maintained with regard to planning and land use policy. Glenn County would continue to operate under existing *General Plan* goals and policies.

According to the State *General Plan Guidelines*:

The general plan should be reviewed regularly regardless of its horizon, and revised as new information becomes available and as community needs and values change. Unless it is periodically updated, a plan will become obsolete in the face of community change. A general plan based upon outdated information and projections is not a sound basis for day-to-day decision making and may be legally inadequate...A jurisdiction is expected to make running changes to its general plan as they are necessary (emphasis added).

Clearly, the "no project" alternative would fail to meet both the requirements of State law and the policy objectives of Glenn County. Among these objectives (Section 2.4 of this EIR) is to meet the requirements of State planning law. Beyond this objective, it is the County's intention to produce a forward-looking policy to guide growth and development over the next 20 years based on the most current and accurate information. The existing *General Plan* would become increasingly outdated and non-responsive to current and future needs, and thus would be increasingly unable to meet project objectives.

Many of the goals and policies of the existing *General Plan* are not consistent with recent environmental guidelines and other relevant plans, such as the *Air Quality Attainment Plan* and the updated *Regional Transportation Plan*, as required by State planning law. Therefore, as growth and development proceed, cumulative and direct air quality and traffic impacts would intensify. Development would be less focused and regulated, resulting in increasing pressures on agricultural lands and natural resources. It would be more difficult for the County to provide necessary public services and infrastructure facilities without policies that would focus development on those areas where services can be provided (and where resources are not needlessly consumed). Business development opportunities might be lost in the absence of a well-defined economic development policy, which would further erode the County's tax base and increase the burden to provide social services. Standard of living and quality of life would gradually decline.

In conclusion, this alternative is environmentally inferior to the preferred alternative, would fail to meet project objectives, and would be inconsistent with State law. This alternative is neither feasible nor desirable.

4.2 COMPARISON OF ALTERNATIVES WITH THE PREFERRED ALTERNATIVE

Table 4-1 below is based on comparison of environmental effects associated with the preferred alternative discussed in Chapter Three against the four alternatives described in this chapter. For each of the four alternatives, Table 4-1 indicates whether that alternative is environmentally superior or inferior in relation to the preferred alternative with respect to each of the 13 environmental issues analyzed in Chapter Three.

Also in Table 4-1 is an indication of the relative social and economic merits or disadvantages of each alternative relative to the preferred alternative. CEQA does not require discussion of social and economic factors in an EIR except to the extent that the lead agency chooses to discuss them. However, these factors are included, because the project will greatly affect the county's social and economic conditions through its goals, policies, and other provisions. In fact, it is an explicit objective of the project to have such an effect. While CEQA is concerned primarily with the *physical* environment, it must be recognized that a general plan will have a profound effect on the *social* and *economic* environments. It is the responsibility of the County in developing its *General Plan* to protect the physical environment and provide for the economic and social well-being of its citizens. Therefore, it is unavoidable that the *General Plan* will have to balance the effects of growth and development on the physical environment with effects that the Plan will have on the economy and social environment.

Following is a brief summary of the comparative environmental effects of each alternative in relation to the preferred alternative.

4.2.1 ALTERNATIVE 1

From a preservationist viewpoint, this is clearly the most advantageous alternative, both in relation to the preferred alternative and to the other three alternatives. Public safety and environmental protection would take precedence over growth and development considerations, including economic growth, under this alternative. It would best preserve open space, wildlife habitat, agricultural soils, water and air quality, roadway levels of service, cultural resources, aesthetics, and other natural resources and have the least effects on noise and light and glare. Limited population and economic growth would result in fewer potential land use conflicts, less housing demand, and less burden on public services and facilities.

Note in Table 4-1 that this alternative would have negative social and economic effects in comparison to the preferred alternative. The highly regulated approach of Alternative 1 would make Glenn County less attractive to industrial and commercial interests, and economic growth may be stifled. This would have negative effects on the County's tax base, its ability to provide public services, and employment opportunities. The result would be an increased burden on the County for public assistance but less funds to provide public assistance and maintain other necessary public services. The overall standard of living and quality of life would be adversely affected.

4.2.2 ALTERNATIVE 2

This alternative is similar to the preferred alternative due to the fact that three of the four policy scenarios are identical. The County's approach to community development, natural resources, and public safety would be the same. Theoretically, therefore, effects on natural resources and public safety also would be the same. However, the County would assume a far more aggressive, proactive, pro-growth posture with respect to economic development under the preferred alternative as compared to Alternative 2. Although population growth and residential development would be the same under both the preferred alternative and Alternative 2, the latter

would likely place less pressure on open land, agriculture, and other resources, because population growth would not be accompanied by the intensity of industrial and commercial growth envisioned under the preferred alternative.

Table 4-1 reflects a net environmental effect that is slightly less positive as compared to Alternative 1, but still somewhat more beneficial as compared to the preferred alternative. Relatively minor advantages over the preferred alternative might be expected in such areas as air and water quality, wildlife and habitat preservation, noise, and land use conflicts. As compared to the preferred alternative, demands on housing and transportation systems would be similar due to the same projected population growth rate. However, while demand may be similar, there would be less tax base under Alternative 2 to provide revenue for transportation improvements and services to support residential development. Thus, any beneficial effects under this alternative in the areas of housing and transportation would be partially offset by fiscal pressure. In fact, because there would be less economic stimulation under Alternative 2 in comparison to the preferred alternative, it may be difficult to sustain the 3 percent growth rate, so that Alternative may not offer any real gains in housing opportunities or transportation improvements over the preferred alternative.

While growth rates are similar between Alternative 2 and the preferred alternative, the lack of aggressive economic stimulation under the former would have negative social and economic benefits compared to the latter. Simply stated, there would be more people, but not necessarily more jobs, proportionally. Unemployment and the public assistance burden may not improve, and in fact, may worsen. The tax base may not be sufficient to keep up with necessary public services and infrastructure facilities. Thus, the net social and economic effect would be somewhat negative in comparison to the preferred alternative. Economic factors may also affect the ability of the County to protect natural resources, agricultural lands, open space, and other aspects of the environment. It is possible, therefore, that the environmental advantages of Alternative 2 over the preferred alternative, as shown in Table 4-1, may be more illusory than actual, despite identical *General Plan* policies for community development, natural resources, and public safety.

Even assuming that Alternative 2 would provide the environmental benefits over the preferred alternative shown in Table 4-1, the County would face less beneficial social and economic conditions. Again, while CEQA is primarily concerned with a project's environmental effects, and socioeconomic effects are of secondary importance, a general plan is not the same as most projects reviewed under the CEQA process. The *Glenn County General Plan* will profoundly affect the physical, social, and economic well-being of the county for the next 20 years. Therefore, social and economic effects must be very carefully considered and weighed against the relative environmental effects in order to provide the opportunity for an optimal standard of living and quality of life for county residents.

4.2.3 ALTERNATIVE 3

Alternative 3 is at the opposite end of the spectrum from Alternative 1 in terms of growth, economic development, and emphasis on environmental protection and public safety. Alternative 3 is explicitly "pro-growth," with all of the implications of that term. As under the

preferred alternative, economic stimulation would be emphasized. Unlike the preferred alternative, however, policies for public safety and environmental protection would be greatly relaxed or non-existent. Any environmental preservation initiatives in the county would have to come from citizen action groups, environmental organizations, or State, federal, and regional trustee agencies, such as the California Department of Fish and Game and the U.S. Forest Service. The County would neither support nor discourage such initiatives.

Development proposals would be openly welcome by the County, particularly industrial and commercial developments that would improve the tax base, provide more employment opportunities, diversify the economy, and relieve the public assistance burden. As shown in Table 4-1, the net effect on the environment and public safety would be universally negative as compared to the preferred alternative. More open space and agricultural land would be developed, possibly including watershed areas, important wildlife habitat, and ground water recharge areas, with negative effects on water quality, biological and cultural resources, and aesthetics. Development would probably be less compact and more likely to affect previously undeveloped areas. This would put severe strains on the roadway system and result in more vehicular trips from remote areas to jobs in urban localities. In turn, air quality would suffer. Noise and light and glare would become more severe with the advent of more industrial and commercial development and new communities arising in previously undeveloped areas, probably including the foothills. Land use conflicts would be more likely, possibly, if not probably, interfering with existing agricultural operations (in addition to the loss of prime agricultural lands).

Public safety would be negatively affected by deteriorating air and water quality and more pressure on the roadway system, resulting in a decrease in traffic safety. Additionally, the pro-growth, pro-development, anti-regulatory posture, along with scattered, leap-frog development of remote areas, would increasingly strain fire and police protection capabilities to their limits. Under this alternative, the County would be reluctant to discourage development by requiring such developer-funded amenities as wastewater treatment systems (to protect ground water) or public water systems that would fully meet fire flow standards. All of these factors will adversely affect public health and safety.

Table 4-1 shows that housing and economic and social conditions would be worse under Alternative 3 as compared to the preferred alternative. It might be expected that relatively rapid growth, accompanied, if not stimulated, by industrial and commercial development with their associated economic benefits, would result in more housing opportunities and economic gains. In the short-term, this may be the case.

In the long-term, however, gains in housing opportunities may be offset by poorer development and design standards (such as fire protection standards), which would lower the overall quality and desirability of housing. Once agricultural operations are disrupted and prime agricultural lands are committed to non-agricultural development, a vital pillar of the local economy would be permanently weakened. There may initially be greater employment opportunities, thus lowering the public assistance burden, but social conditions may worsen as the environment deteriorates. Aesthetic damage caused by uncontrolled development could discourage tourism

and other recreational uses that bring revenue to the county. Overuse of water and other natural resources, poor transportation facilities, and other negative environmental factors may ultimately drive some business out of the county or reduce the ability of the county to attract new businesses and residents. The growth rate, projected at 5 percent annually over the next 20 years may be unsustainable under these conditions, resulting in a return to low or negative growth, further deterioration of infrastructure, lower standards of living, and increased public assistance burden.

In short, this alternative may bring about a boom, such as in the Northwest region, which was fueled by the timber industry. However, in the Northwest, too great a burden was placed on the resources that sustained the regional economy. As a result, the economy of that region may be declining. The burden that Alternative 3 would place on the agricultural industry, prime agricultural lands, and other vital resources, could similarly result in eventual decline in Glenn County. This alternative may be attractive in the short-term, but could initiate a cycle of boom and bust, accompanied by severe damage to those environmental values that make the county a desirable place to live and conduct business.

4.2.4 ALTERNATIVE 4

The "no project" alternative requires little analysis, because its weaknesses are obvious. This alternative is unfeasible due to non-compliance with State planning law. Beyond that, it would increasingly fail to provide policy that would enable the County to keep pace with evolving environmental, social, and economic conditions. For example, County policy would not be compatible with, nor have the ability to implement, the updated Regional Transportation Plan and the Air Quality Attainment Plan, with obvious impacts on both air quality and transportation (along with the fact that general plans and other local and regional planning and policy mechanisms are required by law to be mutually compatible). Growth and development would be less regulated than necessary to adequately protect resources, and the absence of an explicit economic development policy would probably result in increasing unemployment and public assistance burden along with less tax base to provide necessary public services and facilities. As shown in Table 4-1, the effects of this alternative are all negative in comparison to the preferred alternative. As time progresses, the failure to update policy in relation to community development, economic strategy, natural resources, and public safety would result in conditions, albeit less severe, that might prevail if there were no uniform policy at all.

4.3 CONCLUSIONS

Based on the above discussion and as clearly shown in Table 4-1, the County could adopt either Alternative 1 or Alternative 2 and achieve more environmental benefits. However, under Alternative 1, these benefits would be offset or outweighed by economic and social impacts, which in balance, may reduce the overall quality of life. Under Alternative 2, as explained above, the *apparent* environmental benefits in comparison to the preferred alternative may be more illusory than actual, due to the absence of economic growth that would provide necessary revenue for environmental and public safety protection and enhancement. Even if these environmental benefits were to be realized under Alternative 2, the net effect on public services, the economy, and social conditions would be negative. In terms of those nebulous values that

people associate with quality of life, the high quality of the natural environment that might exist under Alternatives 1 and 2 would go hand in hand with lower standards of living and poorer social conditions, which might include increased crime and substandard educational opportunities.

Alternatives 3 and 4 are clearly inferior to the preferred alternative in environmental, economic, and social terms. Alternative 3 may provide, at least initially, a higher standard of living and greater choices in housing, but in the long-term, it may produce a series of boom and bust cycles and take a heavy toll on the environment. Rapid industrial and commercial development may severely damage agriculture, and this effect would be irreversible as prime agricultural lands were consumed for other uses. Alternative 4 is unfeasible and not worthy of serious consideration.

It is possible to devise, compare, and contrast an infinite number of alternatives and combinations of policy strategies for the *Glenn County General Plan*. Among the preferred alternative and the four other alternatives addressed in this EIR, the preferred alternative seems to offer the most optimal formula for balancing environmental, social, and economic considerations to assure both an acceptable quality of life for the county's citizens and an acceptable level of protection for the environmental and public health and safety.

SECTION 5 - SUPPLEMENT TO EXECUTIVE SUMMARY

5.0 SUPPLEMENT TO EXECUTIVE SUMMARY

5.1 REMAINING SIGNIFICANT IMPACTS

The Draft EIR contains an Executive Summary as required by Section 15123 of the CEQA Guidelines. Page E-2 of the Executive Summary contains a discussion of Mitigation Measures and Mitigation Monitoring which concludes that no mitigation and monitoring measures are necessary because the Plan goals, policies, implementation measures and standards serve in that capacity. Although this is true, the Summary did not report that the Draft EIR found four impacts that could not be mitigated to a less than significant level. They are Impact #3.1-2, seismic and geologic hazards; Impact #3.2-1, flooding; Impact #3.6-1, wildland and urban fires; and Impact #3.7-1, air quality.

In the case of each of these impacts, the Plan contains provisions for preventing or minimizing these potential effects to the greatest practicable extent, given the best available precautions and controls. However, despite these provisions, it remains possible that floods, fires or earthquakes will occur and significant impacts might result. Similarly, although air quality effects will be mitigated to the maximum feasible extent to the satisfaction of air quality management agencies through application of current best available control measures, as provided under the Plan, any emissions of criteria pollutants into the atmosphere will be regarded as a significant cumulative impact under CEQA and the California Clean Air Act.

Consequently, it will be necessary for the County to adopt a statement of overriding considerations addressing these four impacts prior to General Plan approval.

5.2 MITIGATION MONITORING AND REPORTING

As was reported in the Executive Summary, because there are no mitigation measures which are in addition to Plan policies, standards and implementation measures, no mitigation monitoring and reporting program is necessary. As was also reported, the implementation measures will serve as reporting and implementation requirements. Although not explicitly stated in the Executive Summary, the annual review of the General Plan, as required by State law, will also serve as a monitoring and reporting tool.