



Natural Resources



Vision

The major themes of this Element directly correlate with the County's General Plan Update Vision, Goals, and Strategies, a document which was approved by the Board of Supervisors prior to preparation of the 2030 General Plan. Following are some of the issues addressed in the County's General Plan Update Vision, Goals, and Strategies document that are related to the Natural Resources Element:

- *Protect agricultural lands, rural landscapes, air and water quality, and natural resource areas.*
- *Link new transportation, water and sewer infrastructure to sound and sustainable policies.*
- *Support rural communities in the development of economic opportunities such as use of natural resources, recreation, and agricultural & ecological tourism.*
- *Include a process to ensure foothill community boundaries will continue to enhance and allow for open space, grazing lands, deer herds and oak woodlands which define the rural character of the foothills and the County as a whole, while meeting the needs and vision of local residents.*
- *Increase the viability of our agricultural areas by allowing for compatible agricultural related businesses such as, but not limited to, processing facilities, agro-tourism, and boutique farming.*
- *Encourage and promote the use and harvesting of natural resources in ways that benefit the County as a whole.*
- *Protect agricultural lands from residential encroachment.*



Introduction

The Natural Resources Element presents the County's overarching conservation, open space, and resource management policy framework. This Element combines two mandatory General Plan Elements: Conservation and Open Space. This Element describes the County's approach to the:

- Preservation of open space;
- Extraction and use of natural resources;
- Conservation of agricultural, cultural, and natural resources; and
- Restoration of natural resources.

Management strategies are identified for important County open spaces and resources, including recreational areas, biological resources, farmland and forests, water supply, energy, cultural resources, mineral resources, and visual resources.

The goals, policies, and actions in this Element will be used by the County in its decision making on project approvals in developing areas, public investments in infrastructure, and public investments on renewable energy generation, ecological restoration, and other actions. This Element also will be used to direct changes to County codes and ordinances, such as the Zoning Ordinance.

Relationship to other Elements

Natural resources are important to ensuring a high quality of life for current and future generations. There is an unavoidable relationship between the local quality of life and the health of our environment. Interrelationships between the County's development, health and safety, and environmental resource policies are reflected in the structure of the 2030 General Plan.

Many conservation and open space-related topics are addressed in the Community Development Element. The County's conservation policies are related to land use policies that establish a framework for development during the General Plan time horizon. For example, the Land Use Diagram identifies open space areas that should be preserved for their natural resource value, or where development should be avoided due to a public health or safety issue.

Open space and conservation are addressed in other ways in the Community Development Element, as well, including policies that promote efficient use of land. Using land more efficiently allows the County and other service providers to provide for growth, while reducing the use of energy and other resources, and without unnecessarily converting farmland and other important open spaces to urban use.

Natural resource policies are also an important part of the County's economic development strategy, as described in the Community Development Element. Future growth industries in the County will include mining, timber, agricultural products and services, renewable energy generation, natural resource-oriented tourism, and other resource-related business.

There is also overlap between this Element and the Public Health & Safety Element on issues of open space and conservation. For example, water supply is addressed here, while water quality issues are covered in the Public Health & Safety Element. Open space preserved for buffering or other open-space oriented use also protects water quality, separates sensitive uses from sources of air pollution, keeps housing out of the floodplain, and addresses other issues addressed in the Public Health & Safety Element. The County's greenhouse gas emissions goals, policies, and actions are addressed in the Public Health and Safety Element, while carbon absorption by the County's forests is also addressed in this Element. There are many other topics that are covered in some way in both the Natural Resources and Public Health & Safety Elements.



Open Space Framework

Open Space lands in the County include agricultural lands (cropland, grazing, and processing areas), wetlands and riparian areas, grasslands, woodlands, and forests. These open spaces are important for resource production and extraction, buffering between incompatible uses, biological habitat, recreation, cultural resources, aesthetics, and other functions. Agricultural, forest, and mining lands are crucial to the County's economic standing, as well.



Open Space Diagram

The County describes its general intent for land use in the Community Development Element. The County has also developed an Open Space Diagram to illustrate the County's intent for important open spaces. Several open space designations are defined in Table Natural Resources-1 and illustrated on the Open Space Diagram (see Exhibit Natural-Resources-1), including:

- Cropland;
- Forest;
- Grazing Lands;
- Critical Habitat;
- Water and Groundwater Recharge Areas;
- Mineral Resources;
- Private Recreation; and
- Public Lands

The designations depicted on the Open Space Diagram are intended to accommodate multiple functions (recreational, aesthetic, habitat, etc).

While many of the open space categories included on the Open Space diagram provide some recreational benefits, the County has also developed a separate Recreational Open Space Diagram (see below).



Open Space lands in the County include wetlands, reservoirs, and riparian areas; rich farmland; and other lands.



Open spaces provide habitat and scenic value, as well as opportunities for recreation.



**Table Natural Resources-1
Open Space Designations**

OPEN SPACE DESIGNATION	INTENT
Cropland	<p>To provide for growing, processing, transporting, and selling cultivated crops, dairies, and other types of agricultural and agriculture-related uses. In these areas, the County's standards will be applied in a way that is protective of agricultural operations. Incompatible uses are those that prevent or interfere with agricultural operations or that may create pressure to convert from agriculture to another use. Other beneficial uses provided on Croplands are consistent with the General Plan, including habitat preservation and mitigation, agricultural and ecological tourism, levees and other public facilities, recreation, and other public purposes.</p>
Forest	<p>To provide for growing and harvesting of timber and forest products, camping and other recreation, water supply protection, carbon sequestration¹, and other forest-related uses. Other beneficial uses, such as habitat mitigation, ecological tourism, watershed management, fish and wildlife habitat management, exploration and extraction of mineral resources, public facilities, and other public purposes are consistent with the General Plan.</p>
Grazing Lands	<p>To provide for grazing, viticulture, dairies, livestock management, and a variety of other agriculture-related uses. Other beneficial uses, such as habitat preservation, habitat mitigation, ecological tourism, recreation, public facilities, and other public purposes are also consistent with the General Plan.</p>
Critical Habitat	<p>To provide habitat for rare, threatened, and endangered species located in Yuba County. Although certain recreational and other public uses may be consistent with the intent to provide for natural habitat, the County anticipates that these lands would remain mostly undeveloped. Critical Habitat includes areas designated by the U.S. Fish & Wildlife Service for vernal pool species and California red-legged frog and critical habitat identified by the California Department of Fish & Game. The U.S. Fish & Wildlife Service also identifies Critical Habitat along segments of the County's streams and rivers for use by steelhead and Chinook salmon. These habitat areas are covered under the designation "Water and Groundwater Recharge Areas," described below.</p>
Water and Groundwater Recharge Areas	<p>To protect water quality and habitat associated with rivers, lakes, reservoirs, and streams. Recreational uses and public access are appropriate along the County's waterways, so long as the design and use does not substantially and adversely affect groundwater recharge, scenic views, cultural or biological resources, or natural habitat.</p>
Mineral Resources	<p>To maintain areas with significant mineral resources for ongoing mineral extraction, processing, and mining-related activities. Compatible uses are those that require a minimum of public and private investment in structures and land improvements, and therefore would allow ongoing mining activities. Incompatible uses are also those that would present conflicts related to noise, dust, truck traffic, or other issues, or those that would require substantial public or private investment in structures, land improvements, and landscaping, and that may prevent mining because of the greater resulting economic value of land and improvements. Incompatibles uses are also those that interfere with flood protection programs or would substantially degrade water quality.</p>
Private Recreation	<p>To maintain existing private recreational areas in their current or expanded use in a way that is sensitive to habitat, aesthetic, and other important open space functions. This Open Space Designation represents existing recreational resources under private ownership with an important open space component. Public parks and recreation is described in the County's Recreational Open Space Diagram.</p>
Public Lands	<p>To remain under public ownership and provide hazard protection, habitat, water supply protection, recreation, and other important public functions. Many of these areas were acquired to provide for habitat preservation. Other areas provide habitat value, but are owned and managed for other purposes, such as timber harvest, recreation, or other resource-oriented use. The County anticipates that Public Lands would continue to provide habitat, aesthetic, recreational, resource extraction, and other values through buildout of this General Plan.</p>

¹ "Carbon sequestration" involves the removal and storage of carbon from the atmosphere in oceans, forests, soils, or physical/biological processes. Trees and other carbon-absorbing vegetative material have what is called "carbon sequestration" potential. Planting substantial vegetation can be used to increase the level of carbon sequestration potential and reduce the net greenhouse gas emissions.

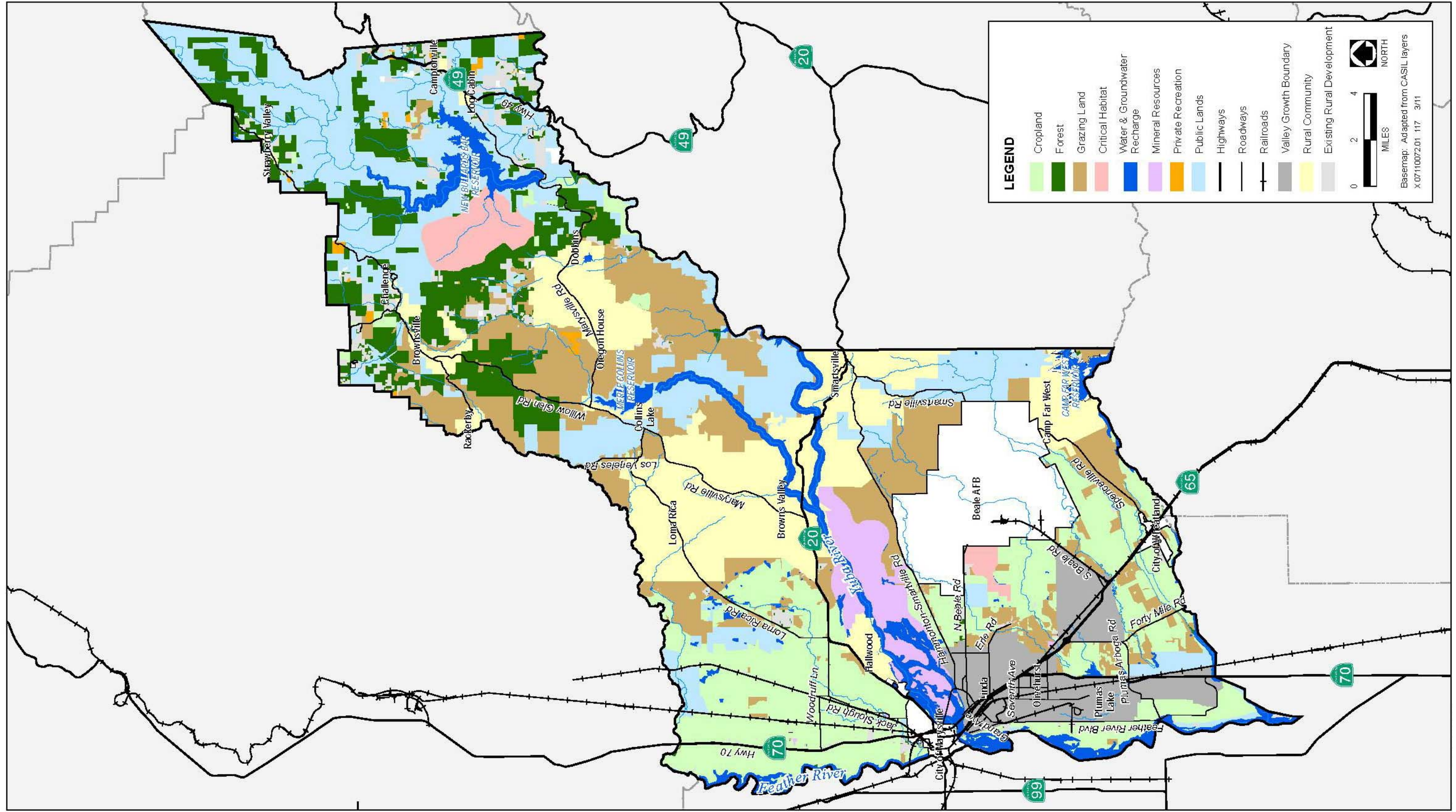


Exhibit Natural Resources-1. Open Space Diagram

Recreational Open Space Diagram

The Recreational Open Space Diagram (Exhibit Natural Resources-2) depicts the general location of existing and future parks, trails, and other types of recreational open space needed to serve County residents and visitors during this General Plan time horizon. Please refer to the County's Parks Master Plan for more detailed information.

Conceptual locations for regional and local parks are identified on the Recreational Open Space Diagram. Parks will be sized, located, designed, and developed with amenities suited to local needs and preferences.

The Recreational Open Space Diagram includes a conceptual representation of a park and countywide trail system that would accommodate multiple activities, such as horseback riding, bicycling, walking, and hiking. The actual alignment of trails will depend on land availability, natural features, property configurations, and optimal connections between communities and destinations. In addition to the countywide trail system, Valley Neighborhoods and Rural Communities will provide a network of internal pathways, sidewalks, and off-street trails that would connect to the countywide trail system. Please refer to the Bicycle and Pedestrian Diagram in the Community Development for more information.

Realization of the Recreational Open Space Diagram will involve coordination among other entities, such as levee districts, reclamation districts, the Central Valley Flood Protection Board, Olivehurst Public Utilities District, private utilities, and the cities of Marysville and Wheatland. Basic guidance for recreational open space is provided in Table Natural Resources-2 below.



Source: Yuba County Parks Master Plan, 2008

**Table Natural Resources-2
Recreational Open Space Guidelines**

TYPE	DESCRIPTION	SERVICE AREA	SIZE	SITE SELECTION
Local Parks	Provide nearby residents with active and passive recreation	Up to ½ mile for smaller parks and up to 1 and ½ miles for larger parks	2 to 15 acres	At least 50% should be level and usable for recreation.
Regional Parks	Provide access to unique features that appeal to residents from throughout the County and beyond, including large group activities, camping, special events, and festivals.	Yuba County and beyond	25 to 100 acres	Access should be along Collector level roadway or above. Regional parks should provide access to natural features such as reservoirs, streams and rivers, if available.
Trails	Single- or multi-use trails and integrated parkspace for recreational use, as well as reaching destinations	Yuba County and beyond	Hiking trails: Minimum easement - 10', minimum surface - 4'. Urban bicycle/pedestrian trail: Minimum easement - 12' (preferably 20'), minimum surface width - 10'	Use existing public rights-of-way and other public lands. Locate trailheads near existing or planned transit stops. Trails should link to schools, parks, and other destinations. Incorporate parkspace into trail corridors in "nodes" along the trail route.
Recreational and Natural Open Space	Permanent, undeveloped natural or green spaces managed for natural, recreational, educational use	Yuba County	Depends on the natural resource to be preserved and proposed activities	Could include wetlands, stream corridors, and other types of habitat.

Source: Yuba County Parks Master Plan, 2008. Adapted by AECOM, 2010.

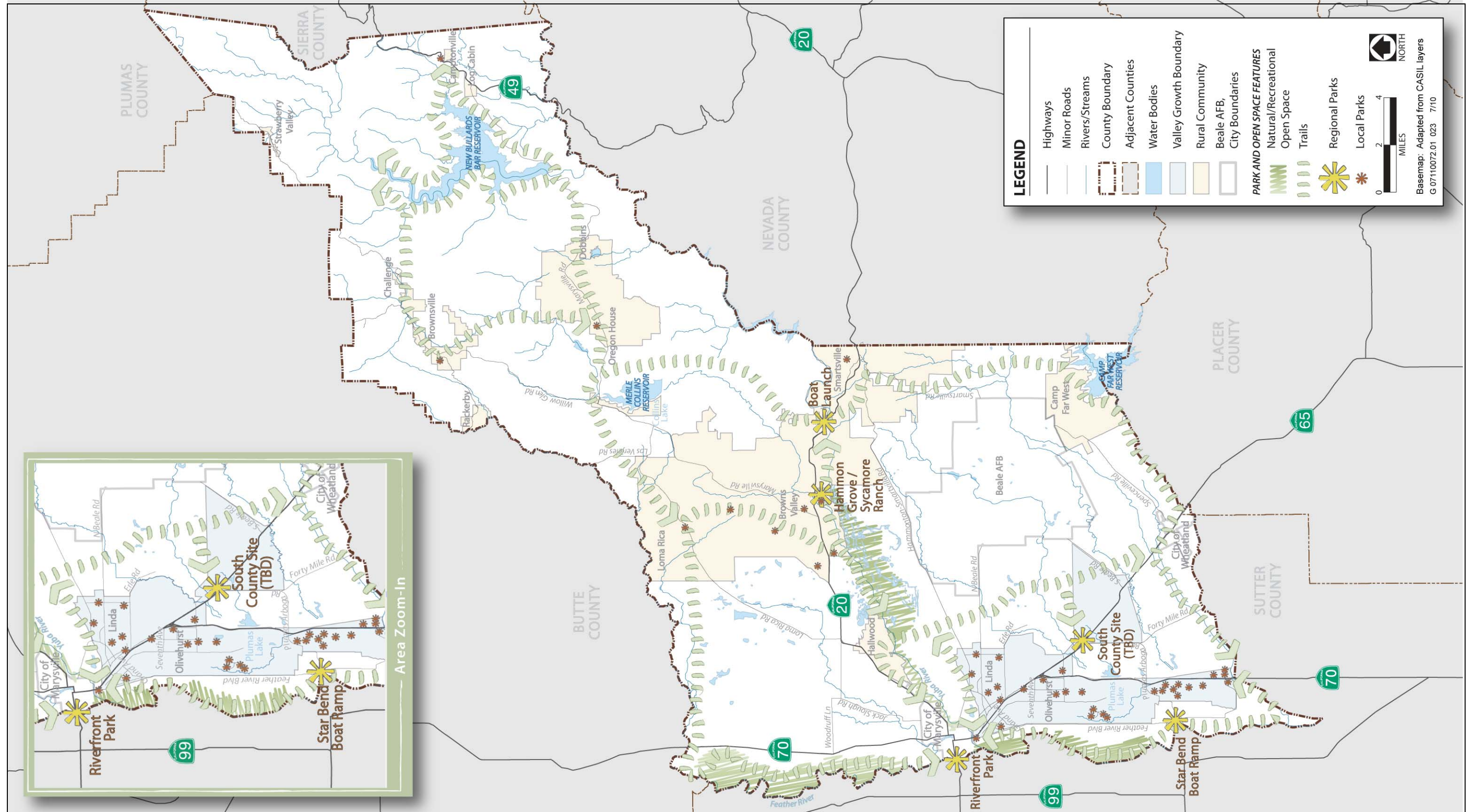


Exhibit Natural Resources-2. Recreational Open Space Diagram



Natural Resource Goals, Policies & Actions

Following are the County's goals, policies, and actions addressing open space and resource conservation.

Recreational Open Space

Parks and recreational facilities contribute significantly to community livability, environmental resource management, and economic development. High-quality recreational open space enhances individual and community health, and attracts residents and employers searching for communities with a high quality of life. At General Plan buildout, Yuba County will be an attractive place to live, work and play, in part, due to its passive and active recreational opportunities.



Today, the County plans for and maintains some local parks and provides regional parks and facilities, such as Hammon Grove Park, Sycamore Ranch, and Star Bend Boat Ramp. Some of Yuba County's unincorporated communities have no parks or recreation facilities, while in others, there are community groups that maintain parks that were created with County assistance. Other areas have parks that were developed and are maintained by the County.

In addition to the County's parks, which are planned and maintained by the Community Development & Services Agency, there are state and federal agencies, other local agencies, and special districts that provide recreational services in the County. State and federal agencies, such as the California Department of Fish & Game, the Federal Bureau of Land Management, and the U.S. Forest Service own land in the County that provides both recreational value and natural open space. The cities of Marysville and Wheatland have park systems of their own with a variety of park types. The Olivehurst Public Utility District has developed and maintains a park system to serve the Olivehurst and Plumas Lake areas. Schools in the Camptonville, Marysville Joint Unified, Plumas Lake, Wheatland and Wheatland High School Districts include playgrounds, playfields, gymnasiums, and other recreational facilities. Private recreational and entertainment facilities are provided at Sleep Train Amphitheatre, Collins Lake Campground, Lake of the Springs, Timbuctoo Sporting Estate, and Lake Francis Resort, as well as other unique areas of the County.

The County's Parks Master Plan considers existing facilities and future population growth in recommending a series of parks and trails to be developed throughout the County. The Parks Master Plan identifies additional recreational facilities that will be required during General Plan buildout, as well as funding strategies that cover up-front capital costs, as well as costs associated with ongoing maintenance.

In addition to parks and trails identified in the Parks Master Plan, the County will pursue grant funding to construct urban greening projects in the Linda and Olivehurst areas, which are identified by this General Plan for reinvestment and revitalization between present and 2030.



Goal NR1. Recreational Areas

High-quality, accessible public recreational open space

- Policy NR1.1 The County will collaborate with other agencies to ensure a quality park, recreation, natural open space, and trail system that is efficient to administer and cost-effective to maintain.*
- Policy NR1.2 Local parks should be developed according to local needs, including those identified in the County's Parks Master Plan and the Olivehurst Public Utilities District Park Master Plan.*
- Policy NR1.3 New developments shall contribute in-lieu fees and/or set aside land and dedicate improved, publicly accessible parkland and trails in locations and amounts dictated by applicable park standards, the County's Parks Master Plan, and the County Code.*
- Policy NR1.4 The County's requirements for parkland provision may allow parkland credit for passive recreational open space, but at a reduced rate, compared to improved active parkland.*
- Policy NR1.5 New developments shall provide for open space corridors consistent with the County's Parks Master Plan, and as needed to provide naturalized drainage and bike/pedestrian connections to nearby neighborhoods and destinations.*
- Policy NR1.6 Specific Plans and Community Plans shall provide for publicly accessible parkland and trails, consistent with the General Plan and applicable standards.*
- Policy NR1.7 Valley Neighborhoods should provide a diversity of park types at a ratio of at least 5 acres for every 1,000 residents.*
- Policy NR1.8 Local parks should be located central to the neighborhood they serve and designed to encourage pedestrian and bicycle access.*
- Policy NR1.9 The County will encourage collaboration among recreation providers and local school districts on planning, financing, and development of joint-use parkspace and recreational facilities.*
- Policy NR1.10 The County's recreational open space should be designed to provide multiple benefits, including recreational, circulation, and stormwater drainage conveyance and detention. Applicable impact and in-lieu-fees will be reduced to reflect these overlapping uses for developments that include multi-use open space.*
- Policy NR1.11 Recreational open space along rivers and streams should incorporate flood control objectives, habitat preservation, and habitat restoration, as appropriate.*
- Policy NR1.12 The County will incorporate trails along canals, transmission lines, and other easements and rights-of-way, where feasible, including trail development atop levees, so long as flood protection facilities are not adversely affected.*
- Policy NR1.13 The County will communicate with neighboring counties and cities to explore connections with Yuba County's planned regional trail system.*
- Policy NR1.14 Recreational facilities and open space should be designed to use recycled materials and green building techniques, minimize surface runoff, reduce water demand,*



provide habitat for native species, reduce the need for ongoing maintenance, and incorporate universal access principles to facilitate use by people of all ages and abilities. Active portions of parks that may generate light and noise should be located and designed to promote compatibility with the surrounding neighborhood.

Policy NR1.15 The County will support the establishment and expansion of ecological and agricultural tourism and recreation activities, consistent with the General Plan.

Policy NR1.16 Natural and recreational open space areas should be provided along the Feather River, the Yuba River and Gold Fields, federal- and state-owned lands, and other river channels, river corridors, and reservoirs in collaboration with relevant agencies and willing property owners.

Policy NR1.17 The County will collaborate with other service providers and/or a future regional parks and recreation authority to provide youth and adult recreation programming.

Action NR1.1 Regional Park Authority or District

In order to address regional parks and recreation demand, the communities of Yuba County should take a leadership role in forming a new regional parks and recreation authority and managing recreational programming. This effort will involve close cooperation and coordination among local park authorities, City of Marysville, Olivehurst Public Utilities District, City of Wheatland, Yuba Feather Community Services District, school districts, levee districts, and community service groups. The County will initiate the process for forming the regional authority/district in collaboration with partner agencies and the Yuba Local Agency Formation Commission. There are a variety of organizational and legal forms that this new authority could assume, although an independent park district with its own board of directors may be the best fit for Yuba County.

The new park and recreation authority should take on regional-scale projects within Yuba County. The regional authority should provide assistance to community groups, county and city staff, and any other interested parties regarding how to improve their local and regional parks. The regional authority should circulate information about potential park funding sources to these interested parties. It is anticipated that the regional authority's staff would be an important resource for connecting local parks and recreation projects to available funding sources.

Following the creation of the regional authority, Yuba County could continue to plan for local parks in unincorporated areas, consistent with the General Plan and Parks Master Plan, using in-lieu fees and other funding approaches. Maintenance and operation would be funded using county service areas, landscape and lighting districts, or other local funding mechanisms. The two cities and the Olivehurst Public Utility District (along with any future utility districts or incorporated cities) could continue to be responsible for planning, development, maintenance, and funding for local parks within their boundaries. Each agency should also be a part of the preliminary cooperative efforts leading up to the creation of a regional park authority/district.

A park district can secure funding for capital and operations in a variety of ways. A park district has taxation and bonding authority, subject to voter approval, and can create benefit assessment districts. Regional funding will need to be clearly differentiated from local funding.



Related Goals:	Goal NR1, Goal NR2
Agency/Department:	Community Development and Services Agency
Funding Source:	General Fund, grant funding, fees, and other funding sources, as available
Time Frame:	Initiate regional discussions regarding feasibility of regional authority by 2013

Goal NR2. Urban Greening

Improve Yuba County’s urban areas and the environment through development of green public spaces

- Policy NR2.1 The County will encourage urban greening projects that are designed to:*
- *Improve air and water quality;*
 - *Protect natural resources;*
 - *Increase the attractiveness of affordable housing and existing developed areas;*
 - *Promote public health and the development of a healthy community;*
 - *Increase access to safe areas for physical activity;*
 - *Improve access to healthy, local food sources;*
 - *Improve and use existing infrastructure systems and other community resources;*
 - *Promote public health;*
 - *Reduce greenhouse gas emissions; and*
 - *Adapt to future climate conditions.*
- Policy NR2.2 The County will encourage urban greening projects to be developed in underserved areas of Linda and Olivehurst, such as tree planting and maintenance, natural drainage systems improvements, ecological restoration, park development, renewable energy development and energy conservation projects, trail development, community gardens, and other appropriate project types.*
- Policy NR2.3 Urban greening projects shall be designed to improve access to recreational spaces for existing residents and improve existing developed areas of the County.*
- Policy NR2.4 Urban greening projects can also be designed to integrate open spaces in existing developed areas with open spaces designed to connect with planned development areas.*
- Policy NR2.5 The County will coordinate with local and regional agencies on the identification of potential urban greening projects.*
- Policy NR2.6 The County will invite local service agencies, residents, property owners, and other organizations and individuals to contribute ideas for local urban greening projects.*

Action NR2.1 Urban Greening Projects

During this General Plan time horizon, the County will identify and seek funding for urban greening projects that provide for a range of benefits, such as:



- Reducing greenhouse gas emissions;
- Decreasing air and water pollution;
- Reducing the consumption of natural resources and energy;
- Increasing the reliability of local water supplies, and/or
- Increasing adaptability to climate change.

The County’s urban greening projects will be designed to promote infill development and social equity, protect environmental resources, including agricultural lands, and encourage efficient development patterns. The County will coordinate with local school districts, local utility providers, cities, and other local and regional agencies, where appropriate, for Urban Greening Projects of mutual benefit. Urban greening projects will be identified that improve air and water quality, increase the attractiveness and availability of affordable housing, improve infrastructure systems or their function, and promote public health.

Related Goals:	Goal NR1, Goal NR2, Goal CD8, Goal CD11, Goal CD12, Goal CD19
Agency/Department:	Community Development and Services Agency
Funding Source:	Grant funding, as available
Time Frame:	Throughout General Plan implementation, as funding is available

Farmland and Forests

The 2030 General Plan is designed to ensure that agriculture, forestry, and related industries will continue to play a significant role in both the County’s economic development prospects and its rural character. In order to protect the County’s agriculture and forestry, while also accommodating growth, development must avoid the most productive lands and be designed to use land efficiently, avoiding the need to unnecessarily convert agricultural and forest lands to urban use. Issues related to land use and compact community design are addressed in the Community Development Element.



Many components of the County’s approach are addressed in this section, including:

- Preserving an adequate land base for agriculture and forestry;
- Protecting against encroachment of development;
- Promoting diversification of these industries;
- Identifying additional revenue sources and methods to reduce costs of operations;
- Marketing of local products; and
- Research and development opportunities that increase overall productivity.



Agriculture represents the single most important economic activity and most prevalent land use in Yuba County. Agriculture directly contributes to the local economy through job development, production, and exports. Agricultural production in the County and throughout the state is also closely linked to many other industries. For every 100 jobs in agriculture, it is estimated that another 94 additional jobs are created in related industries.²

Cropland and grazing lands account for approximately 60% of the County's total land area. Cropland dominates the valley floor, and although there is some grazing land present in the valley, the majority of the grazing lands are located in the foothills. Most of the County's Prime Farmland is located on the valley floor, particularly along the rivers, while most of the Unique Farmland is located in the areas east of Marysville, Linda, Olivehurst-Plumas Lake, but west of the foothills and Beale Air Force Base (Exhibit Natural Resources-3).

There are large forested areas of Yuba County that provide habitat, surface water supply, visual resources, and timber resources. Most forests are in the foothills and mountain areas of eastern and northeastern Yuba County, which include portions of Tahoe National Forest and Plumas National Forest. Timber production and harvesting is a major component of the local economy, and the County has an interest in maintaining timber harvesting as a viable industry, along with the other open space co-benefits of the County's forest lands. The County's forests also capture and remove carbon dioxide from the atmosphere. Efforts to enhance forest resources to increase carbon sequestration will be a part of California's strategy to achieve greenhouse gas reduction targets.

Goal NR3. Farmland

Provide for long-term, vibrant local agricultural operations

- Policy NR3.1 The County's zoning and development standards, including allowable uses and minimum lot sizes, will be designed to support agriculture-related economic activities and avoid conflict with ongoing viable agricultural operations.*
- Policy NR3.2 New developments adjacent to ongoing agricultural operations shall provide written notice to landowners and residents regarding potential noise, dust, odors, and other effects of adjacent agriculture.*
- Policy NR3.3 The County will not consider agricultural operations to be a nuisance in cases where new development occurs in areas near ongoing agricultural operations.*
- Policy NR3.4 New developments adjacent to ongoing agriculture shall incorporate design, construction, and maintenance techniques to minimize conflicts with adjacent agricultural uses, including, but not limited to the use of agricultural buffers.*
- Policy NR3.5 Agricultural buffers are only required at the edges of Rural Community Boundary Areas and the Valley Growth Boundary where there are adjacent ongoing agricultural operations. Buffers are not required in areas adjacent to planned urban development shown on the General Plan Land Use Diagram.*
- Policy NR3.6 Agricultural buffers are not required for portions of developments adjacent to existing rural residential development or adjacent to other types of development on parcels of primarily 5 acres or less.*

² University of California Agricultural Issues Center. "The Measure of California Agriculture." November 29, 2006

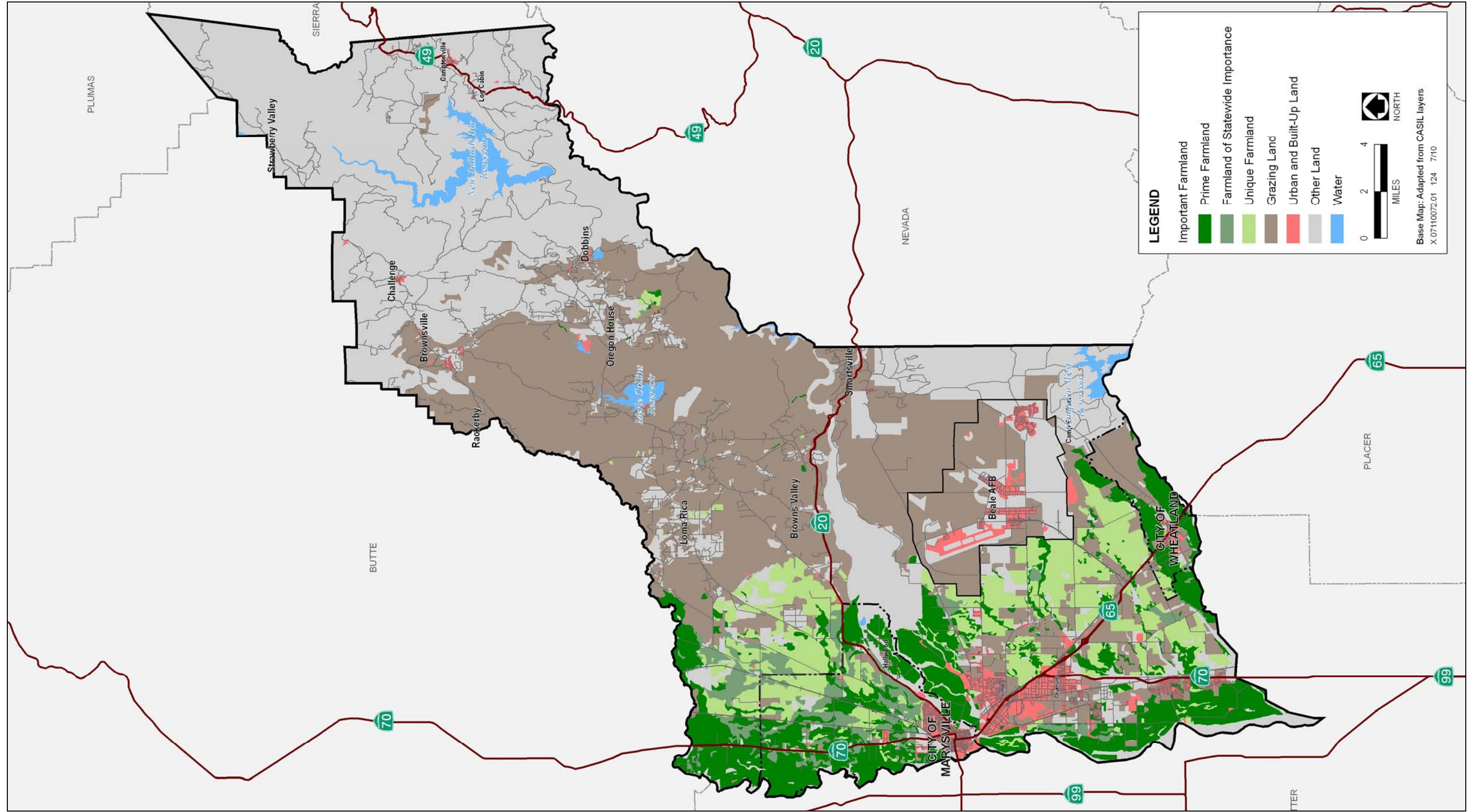


Exhibit Natural Resources-3. Important Farmland



- Policy NR3.7 Agricultural buffers should be designed to accommodate drainage, trails, roads, other facilities or infrastructure, community gardens, native landscaping, and other uses that would be compatible with ongoing agricultural operations and provide valuable services or amenities.*
- Policy NR3.8 The County will support small-scale farming on Valley Neighborhood properties, where such operations are compatible with surrounding uses.*
- Policy NR3.9 The County will support agricultural tourism, small-scale agriculture and agricultural processing, such as olive oil production and wineries, in Rural Community Boundary Areas, where compatible with surrounding uses.*
- Policy NR3.10 Cropland and grazing land may be used for habitat conservation and mitigation purposes, consistent with the Yuba-Sutter County Natural Community Conservation Plan/Habitat Conservation Plan, once adopted.*
- Policy NR3.11 Residential dwellings developed in cropland areas shall be secondary to, and supportive of ongoing agricultural operations.*
- Policy NR3.12 The County will support the incorporation of renewable energy generation and distribution projects into agricultural operations.*
- Policy NR3.13 The County's Economic Development Strategy and Work Plan should include as a focus the expansion of existing agriculture and agriculture-related industries and development of new value-added activities, agricultural processing, distribution, marketing and sales, and other agriculture-related economic activities.*
- Policy NR3.14 The County's entitlement process for agricultural operations and improvements will be designed and managed in a way that is efficient and predictable.*
- Policy NR3.15 The County will support efforts to agree on a regional approach in the Yuba-Sutter area among counties and cities to protect local agricultural resources and the local agricultural economic base.*

Action NR3.1 Agricultural Zoning

As a part of the comprehensive Zoning Ordinance update that will follow adoption of the General Plan, the County will establish minimum parcel sizes on Cropland and Grazing Land designed to promote their long-term viability for agricultural use. In general, higher per-acre value agricultural operations could accommodate relatively smaller long-term viable parcel sizes, depending on the crop type. Lower per-acre value types of agricultural activity, such as grazing, would need larger parcel sizes in order to be viable on a long-term basis. Determining the minimum viable agricultural parcel size depends on several factors that are subject to change over time. A recent study by the UC Davis Department of Agricultural and Resource Economics does not establish minimum viable parcel size, but suggests that for walnuts in Yuba and Sutter counties, the minimum viable parcel size is more than 20 acres.³ County staff will collaborate with local experts from UC Cooperative Extension, the Yuba-Sutter Farm Bureau, and other organizations, as well as local farmers for guidance on minimum parcel sizes required to support ongoing viable operations within the context of local crop types and grazing operations. The County's Zoning Ordinance will be revised to regulate land use and

³ Karen Klonsky, Department of Agricultural and Resource Economics, UC Davis. Economically Viable Parcel Size. August 28, 2006.



parcel size on Cropland and Grazing Lands outside the Valley Growth Boundary and Rural Communities, based on this guidance.

Related Goals: Goal NR3

Agency/Department: Community Development and Services Agency; Agricultural Commissioner

Funding Source: General Fund and/or permit fees

Time Frame: The County's zoning and development standards will be revised following the General Plan Update. The target date for approving a revised zoning code is 2013.

Action NR3.2 Agricultural/Urban Interface

The County will develop and approve guidelines for the required location and design of agricultural buffers (Exhibit Natural Resources-4). Allowed land uses within buffer areas would include drainage swales, trails, roads, other facilities and infrastructure, community gardens, native landscaping, linear parkland, and other uses that are compatible with ongoing agricultural operations. Buffer guidelines will illustrate methods to avoid conflicts between ongoing agricultural uses and encroaching urban development. Buffers will be designed to avoid nuisance complaints related to dust, spraying, noise, and other relevant issues. The County's guidelines will provide guidance on the appropriate width of buffers. The width will depend on such factors as prevailing winds, crop types, agricultural practices, and other relevant factors. The width of roads, trails, drainage ways, other rights-of-way, and easements may count as part of the buffer.

Related Goals: Goal NR3, Goal HS1

Agency/Department: Community Development and Services Agency and Agricultural Commissioner

Funding Source: General Fund and/or fees

Time Frame: The target date for approving guidelines for agricultural buffers is 2014



Above: Agricultural buffers should provide public uses and amenities such as trails, naturalized drainage areas, community gardens, and other compatible uses.

Exhibit Natural Resources-4: Agricultural Buffer



Goal NR4. Forestry

Ecologically and economically sustainable local forestry and timber harvest operations

- Policy NR4.1 The County's zoning and development standards for Forest areas will be designed and implemented to support and avoid conflict with ongoing timber harvest operations and forestry-related economic activities.*
- Policy NR4.2 Uses in Timberland Preserve Zones (TPZs) shall be compatible with ongoing forestry and timber harvest operations.*
- Policy NR4.3 The County will generally defer to the State for timber harvest plan review, but will assist with efforts to address land use conflicts in the context of timber harvest plan review, where possible.*
- Policy NR4.4 Any new residences constructed in or near timber harvest areas shall mitigate impacts on adjacent timber harvesting operations.*
- Policy NR4.5 The County will discourage location of public improvements and utilities in Timberland Preserve Zones, where the public improvements or the land acquisition required for the improvements would have a substantial adverse affect on timber production.*
- Policy NR4.6 The County will encourage conservation easement programs that combine sustainable forest management with timber production.*
- Policy NR4.7 The County will support forest management and product certification, as well as new forestry related economic practices and product development, including renewable energy development and sawmills.*
- Policy NR4.8 The County will support carbon offset programs within Yuba County's forests, according to established protocols, and will support local carbon sequestration programs as an important aspect of local and regional greenhouse gas reduction requirements.*

Action NR4.1 Carbon Sequestration Programs

The County will proactively coordinate with local and regional agencies to investigate the feasibility of setting up a carbon offset program. The County will coordinate with the U.S. Forest Service, Bureau of Land Management, Yuba County Water Agency and water districts, and private timber companies and nonprofits to encourage local development of state-certified carbon sequestration projects. The County should encourage local application of regional greenhouse gas (GHG) offset fees, if feasible. If the County implements a GHG mitigation program tied to its GHG policies, local GHG fees collected for projects that do not achieve GHG efficiency policies on a per-capita, per-employee, or per-service population basis should be able to mitigate impacts using local, verified, GHG offset programs, if feasible.

Related Goals:	Goal HS5, Goal NR4
Agency/Department:	Community Development and Services Agency
Funding Source:	Mitigation fees, grant funding, other available funding sources
Time Frame:	Implement program, if feasible, by 2020



Biological Resources

Yuba County contains many different habitat types capable of supporting a wide variety of species and wildlife and plant communities. Habitat ranges from highly disturbed areas, such as those in agricultural production adjacent to urban development, to high-quality native habitats that have experienced little disturbance, such as in the remote mountainous areas of the County (Exhibit Natural Resources-5).



Due to the wide range of habitat types, the County contains a wide range of species supported by these habitats. Wildlife diversity is high in the eastern portions of the County, particularly in the lower mountain forest and woodlands, including amphibians, reptiles, birds, and mammals. Habitats in the middle elevations of the County are also considered to be important for wildlife and contain a wide variety of species. Habitat found in the County's floodplains and within its riparian forests in the western portion of the County is important for many different species of plants and wildlife and is considered to have high biological value. Chaparral habitats support some important species, and similarly, annual grasslands generally have lower levels of wildlife diversity, but are important for grassland-dependent species. Rice fields in Yuba County are considered to be an important wildlife habitat since the County is located within the Pacific Flyway, a major migration route for millions of birds.



The waterways, lakes, and reservoirs of Yuba County support a wide range of fish, birds, and other native and non-native species. Yuba County waterways and riparian areas support resident species and migrating birds, fish, and other species. The sensitive natural communities of concern to organizations like the California Department of Fish & Game and California Native Plant Society are riparian forest and woodland, northern hardpan vernal pools, and fresh emergent wetlands. These communities are primarily located in the western portion of the County in the valley and foothills.

Yuba and Sutter counties (with city partners) are in the process of preparing the Yuba-Sutter Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which will cover areas in the western portion of Yuba County and protect habitat for wildlife. The Yuba-Sutter NCCP/HCP is a cooperative planning effort initiated by the counties in connection with future development. This landscape-wide approach to conservation can be a more effective means to protect substantial areas, which in turn have a higher likelihood of conserving special-status species over the long term. The benefits of large-scale conservation planning for various stakeholders include acceleration and integration of the permitting process, reduction of applicant permitting costs, while improving regulatory certainty, and facilitation of needed public infrastructure projects. The program provides economic incentives for willing private landowners to conserve and act as stewards of valuable resources, and enables local governments to play a leadership role in natural resource conservation and permitting within a framework established in partnership with regulatory agencies. The Yuba-Sutter Regional NCCP/HCP will provide a way to accommodate economic and community development; retain the economic vitality of the local agricultural community; maintain recreation, hunting, fishing, and other public uses of the local open space; simplify and expedite land use and conservation planning in the plan area; protect threatened and endangered species; and preserve plant and wildlife communities.



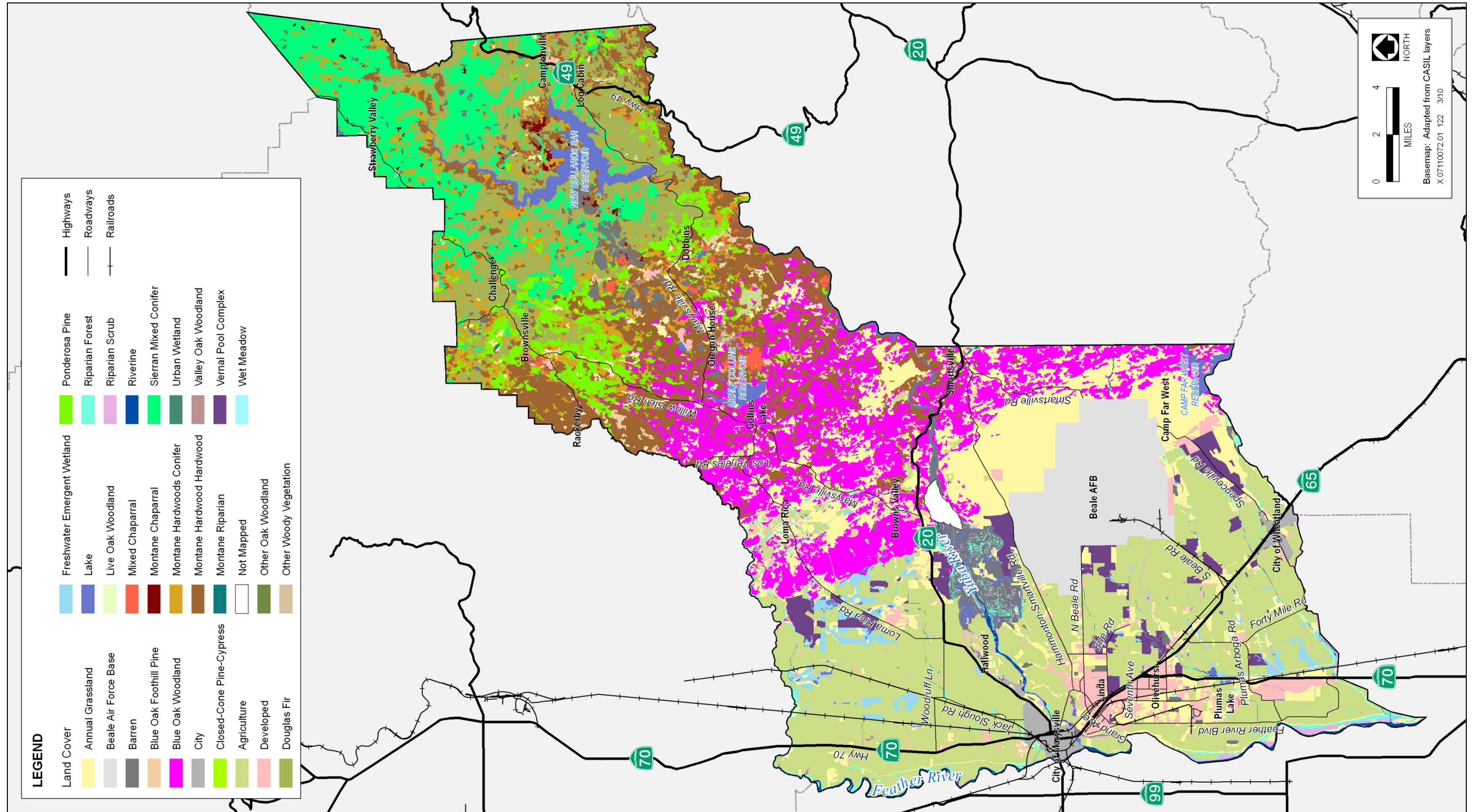
For more information on the relevant regulatory environment, please refer to the General Plan Biological Resources Background Report, under separate cover.



Goal NR5. Biological Resources

Protect and restore habitat for special-status species that have the potential to occur in Yuba County

- Policy NR5.1 New developments that could adversely affect special-status species habitat shall conduct a biological resources assessment and identify design solutions that avoid such adverse effects. If, after examining all feasible means to avoid impacts to special-status species habitat through project design, adverse effects cannot be avoided, then impacts shall be mitigated in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species, including pre-construction surveys conducted according to applicable standards and protocols, where necessary.*
- Policy NR5.2 The County will coordinate its environmental review and mitigation requirements with the Yuba-Sutter NCCP/HCP, once adopted.*
- Policy NR5.3 The County will support the continued development and implementation of the Yuba-Sutter NCCP/HCP, once adopted.*
- Policy NR5.4 New developments shall be located and designed to preserve and incorporate existing native vegetation to the maximum extent feasible. Fire safety standards may override consideration of retaining existing vegetation in certain circumstances.*
- Policy NR5.5 The County will support cooperative restoration, development, and promotion of natural resources with the U.S. Fish and Wildlife Service, the Army Corps of Engineers, the Bureau of Reclamation, the U.S. Forest Service, and other public agencies with an interest in the Yuba County's water and wildlife assets.*



LEGEND

Land Cover	Freshwater Emergent Wetland	Ponderosa Pine	Highways
Annual Grassland	Lake	Riparian Forest	Roadways
Beale Air Force Base	Live Oak Woodland	Riparian Scrub	Railroads
Barren	Mixed Chaparral	Riverine	
Blue Oak Foothill Pine	Montane Chaparral	Sierran Mixed Conifer	
Blue Oak Woodland	Montane Hardwoods Conifer	Urban Wetland	
City	Montane Hardwood Hardwood	Valley Oak Woodland	
Closed-Cone Pine-Cypress	Montane Riparian	Vernal Pool Complex	
Agriculture	Not Mapped	Wet Meadow	
Developed	Other Oak Woodland		
Douglas Fir	Other Woody Vegetation		

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Basemap: Adapted from CASIL layers
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Exhibit Natural Resources-5. Land Cover



- Policy NR5.6 The County will seek funding to enhance and restore habitat along the Yuba River, in coordination with development of recreational facilities and public access.*
- Policy NR5.7 New developments and public investments near Yuba County's streams and rivers shall be designed to avoid tree removal, erosion, or other modifications that would adversely affect salmonid habitat.*
- Policy NR5.8 New private developments adjacent to riparian areas shall provide a buffer designed and maintained to preserve existing wildlife habitat; provide habitat conditions favorable to native local wildlife; restrict activities that may adversely affect wildlife habitat quality; and restore degraded habitat, where feasible.*
- Policy NR5.9 New developments shall be designed to avoid the loss of jurisdictional wetlands. If loss is unavoidable, the County will require applicants to mitigate the loss on a "no net loss" basis through a combination of avoidance, minimization, restoration, and/or constructed wetlands, in accordance with federal and state law.*
- Policy NR5.10 The County will encourage measures on agricultural lands that conserve or restore habitat.*
- Policy NR5.11 The County will support the use of mitigation fees from the Yuba-Sutter Natural Community Conservation/Habitat Conservation Plan to fund preservation and restoration elements of the County's open space strategy.*
- Policy NR5.12 Any new developments adjacent to the Spenceville Wildlife Refuge, Marysville Wildlife Area, Feather River Wildlife Area, Daugherty Hill Wildlife Area, or Starbend Fishing Access shall be buffered from wildlife areas or otherwise designed to avoid adverse direct and indirect effects on wildlife. Buffers related to firearm use, if necessary, should occur within the public wildlife area.*
- Policy NR5.13 New developments that could adversely affect wildlife movement corridors shall conduct a biological assessment and avoid placing any temporary or permanent barriers within such corridors, if they are determined to exist on-site. Avoiding barriers to wildlife movement may be accomplished at the project or community plan level.*
- Policy NR5.14 The County will discourage development that would substantially and adversely affect the designated winter and critical winter range of the Mooretown or Downieville deer herd.*
- Policy NR5.15 Roads, water lines, sewer lines, drainage facilities, and other public facilities constructed to serve unincorporated County development shall be located and designed to avoid substantial impacts to stream courses, associated riparian areas, and wetlands, to the greatest extent feasible.*

Action NR5.1 Environmental Review and Mitigation

The County will maintain information on biological resources, including data gathered for this General Plan and the NCCP/HCP, and will use this information to determine whether projects could have potentially significant impacts on biological resources, and whether project-level biological assessments would be required prior to project approval. Private and public projects will be required to comply with provisions of the California Environmental Quality Act (CEQA), including documentation and mitigation of potentially significant impacts. The



County will identify a range of exemptions and streamlining for infill development⁴ projects where the County is the CEQA lead agency, including streamlining of biological resource information that is necessary to entitle such development projects.

For projects that would affect the function and value of river, stream, lake, pond, or wetland features, each of these features shall be delineated. For wetlands, the delineation shall be conducted in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and verified by USACE.

The County will identify standard mitigation and survey requirements, if necessary, for use with project level CEQA review, as well as National Environmental Policy Act (NEPA) review, where needed. The standard mitigation and survey requirements will be consistent with applicable guidance from trustee and responsible agencies, such as the California Department of Fish & Game, the Army Corps of Engineers, and the U.S. Fish and Wildlife Service. Mitigation monitoring shall be conducted to ensure performance criteria are met.

Related Goals: Goal NR5, Goal NR10, Goal HS3, Goal HS8, Goal CD11

Agency/Department: Community Development and Services Agency

Funding Source: Project applicant funding for private plans and projects, various sources of funding for public projects

Time Frame: Ongoing, as projects are proposed under the 2030 General Plan

Action NR5.2 Conservation Planning

The County, in collaboration with other participating agencies, will participate in development, adoption, and implementation of a Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Mitigation and conservation measures from the NCCP/HCP will be incorporated into the County's monitoring and implementation of the General Plan, Specific Plans, and Community Plans, as appropriate.

Related Goals: Goal NR5, Goal NR10, Goal HS3

Agency/Department: Community Development and Services Agency, partnering with other regional agencies

Funding Source: Mitigation fees, grant funding, General Fund, other appropriate funding sources

Time Frame: The County's goal is to have an adopted NCCP/HCP by 2015, although many other agencies and stakeholders are involved in regional conservation planning efforts, and the timeline is beyond the County's direct control.

⁴ "Infill development," for the purposes of this General Plan, means projects that can be served by connecting to existing municipal water and sewer trunk lines that are present in the project vicinity.



Action NR5.3 Wetlands and Riparian Buffers

Through review of proposed private and public projects near wetlands and riparian areas, the County will require buffering to protect these important habitats. Setbacks are expected to range from 33 to 150 feet in width. Where stream courses are contained within levees, as in the case of the Bear, Feather, and Yuba rivers, required setbacks shall be measured from the outside toe of the levee. Where levees are not present, the buffer shall be measured from the edge of the active floodway.

Setbacks will be included as a part of conditions of approval for proposed projects. The depth of the setback shall be determined based upon site-specific conditions and communication with appropriate trustee and responsible agencies, such as the California Department of Fish & Game, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service. Depending on the vegetation type, ongoing management of buffers may be necessary to address invasive species, human disturbance, and to sustain habitat and water quality functions.⁵

Buffers should generally be subject to a permanent covenant, such as a conservation easement, and shall include an ongoing maintenance agreement with a land trust or other qualified organization. In the case of vernal pool wetlands, sufficient area shall be preserved to maintain the hydrologic integrity of each vernal pool to be preserved. Low-impact recreation could be allowed in buffer areas so long as impacts to these sensitive habitats are avoided or fully mitigated. Human and pet disturbance in sensitive habitat areas should be discouraged as a part of buffer and project design.

Related Goals:	Goal NR5, Goal NR10, Goal HS3, Goal HS8, Goal CD11
Agency/Department:	Community Development and Services Agency
Funding Source:	Project applicant funds
Time Frame:	Ongoing, as projects are proposed

⁵ For more information on riparian buffers, please consult the following resources, which were compiled by John C. Hunter, Ph.D. and Associate Principal with AECOM: Brinson, M. M. et al. 2002. Riparian areas: functions and strategies for management. National Research Council, Washington, DC. Correll, D. 2003. Vegetated stream riparian zones [an annotated bibliography of the world literature]. Available at: <http://www.unl.edu/nac/riparianbibliography.htm>. Environmental Law Institute. 2003. Conservation thresholds for land use planners. Washington, DC. Fennessy, M. S. and J. K. Cronk. 1997. The effectiveness and restoration potential of riparian ecotones for the management of nonpoint source pollution, particularly nitrate. *Critical Reviews in Environmental Science and Technology* 27:285–317. Lee, P. et al. 2004. Quantitative review of riparian buffer width guidelines from Canada and the United States. *Journal of Environmental Management* 70:165–180. Lowrance, R. (ed.) 2004. Riparian ecosystems and buffers: multi-scale structure, function and management. WRA Specialty Conference, American Water Resources Association, Middleburg, VA. Paul, M. J. and J. L. Meyer. 2001. Streams in the urban landscape. *Annual Review of Ecology and Systematics* 32:333–365. Riparian Habitat Joint Venture. 2004. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. Version 2.0. California Partners in Flight. Sabater, S. et al. 2003. Nitrogen removal by riparian buffers along a European climatic gradient: patterns and factors of variation. *Ecosystems* 6:20–30. Semlitsch, R. D. and J. R. Bodie. 2003. Biological criteria for buffer zones around wetlands and riparian habitats for amphibians and reptiles. *Conservation Biology* 17:1219–1228. Spruill, Timothy B. 2000. Statistical evaluation of effects of riparian buffers on nitrate and ground water quality. *Journal of Environmental Quality* 29:1523–1538.



Action NR5.4 Voluntary Restoration on Agricultural Lands

The County will coordinate with other service providers and the Yuba Conservation District to seek funding for projects in existing agricultural areas including: planting native vegetation around the edges of farms, around structures, and along roads and driveways; and maintaining or improving irrigation and drainage canals to provide enhanced habitat value.

- Related Goals: Goal NR5, Goal HS3, Goal NR3
- Agency/Department: Community Development and Services Agency and Agricultural Commissioner, partnering with other regional agencies
- Funding Source: Mitigation fees, grant funding, General Fund, other appropriate funding sources
- Time Frame: Ongoing, as funding is available

Action NR5.5 Yuba River Recreation & Wildlife Enhancement Plan

The County will coordinate with the City of Marysville, local citizen groups, the Bureau of Land Management, the Yuba County Water Agency, and local mining companies to prepare and implement a Recreation and Wildlife Enhancement Plan for the Yuba River. The County will appoint a staff person to coordinate and oversee this planning effort. The Plan will be designed to develop public access, recreational opportunities, cultural amenities, and other appropriate uses, while restoring and conserving important habitat along the Yuba River.

- Related Goals: Goal NR1, Goal NR5, Goal NR6, Goal NR8, Goal CD14, Goal CD15, Goal HS3
- Agency/Department: Community Development and Services Agency, partnering with other regional agencies
- Funding Source: Mitigation fees, grant funding, General Fund, other appropriate funding sources
- Time Frame: Ongoing, as funding is available.





Cultural Resources

Yuba County contains many documented historic and prehistoric cultural resources, including historic sites associated with past mining activities. Overall, 2,876 cultural resource sites were identified in the studies used to compile the General Plan Cultural Resources Background Report. Of these, 1,032 sites were prehistoric sites, 925 were related to mining activities, 888 were designated as Other Historic Sites, and 31 were combined prehistoric and historic sites. Overall sensitivity for prehistoric cultural resources is related to areas that have been subject to survey, as well as waterways throughout the County (Exhibit Natural Resources-6).

The types of prehistoric sites observed within the County include bedrock mortars where acorns were ground into flour; occupation sites where people may have lived; and traditional cultural areas such as gathering sites, mythical sites, and religious sites. Historic sites include mining sites like open pits, shafts, adits, tailings, ditches, sluice boxes, etc.; and historic structures or properties such as ranches, farms, cabins, houses, cemeteries, walls and fences, etc.

Goal NR6. Cultural Resources

Identify, protect, and preserve Yuba County's important prehistoric and historic resources

- Policy NR6.1 The County will require environmental assessment and mitigation to reduce or avoid impacts to significant cultural resources, as feasible, per state and federal legislation and regulations.*
- Policy NR6.2 If potential paleontological or prehistoric resources are detected during construction, work shall stop and consultation is required to avoid further impacts.*
- Policy NR6.3 New developments, roads, water and sewer lines, and stormwater infrastructure should be located to avoid impacts to significant cultural resources.*
- Policy NR6.4 The County will encourage adaptive reuse of historic structures in a way that maintains the character defining elements of the historic structure.*
- Policy NR6.5 Priority investment should go to preserving or rehabilitating historic structures that are grouped in close proximity, are particularly good examples of a specific architectural style, or are associated with important people or events in the County's history.*
- Policy NR6.6 The County will disseminate information to property owners regarding tax incentives and other federal and state programs that support the rehabilitation of historic structures.*

Action NR6.1 Environmental Review and Mitigation

Building on the analysis in the General Plan Program EIR, new development projects that could have significant adverse impacts to prehistoric or historic resources will be required to assess impacts and provide mitigation. The following steps, or those deemed equally effective by the County, will be followed:

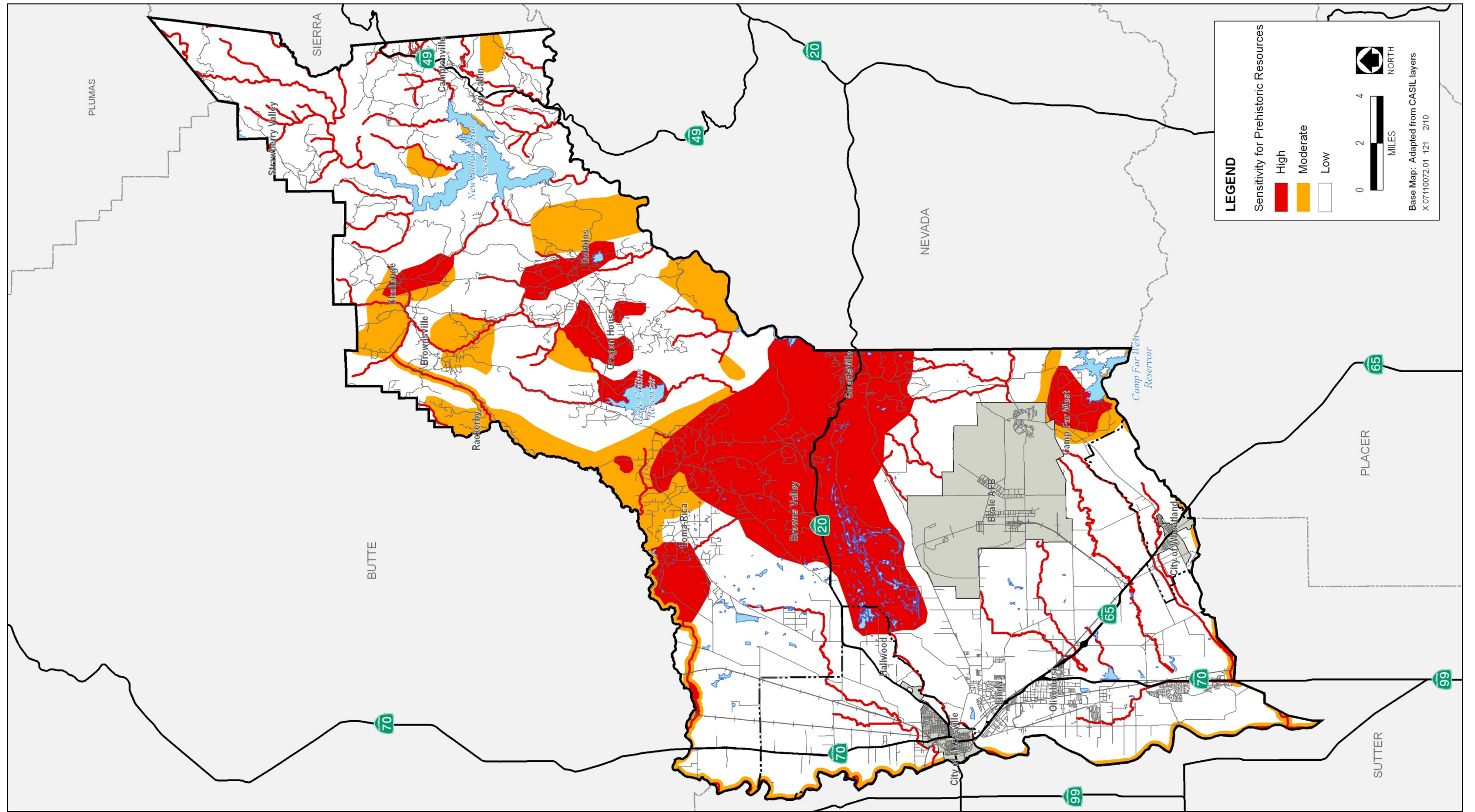
- Request information from the Native American Heritage Commission regarding Native American groups that may have important sites in areas that could be affected by project development.



YUBA COUNTY GENERAL PLAN

- Involve the local Native American community in determining the appropriate mitigation of impacts to significant prehistoric sites.
- Consult the County's historic and cultural resources database and updated information from the North Central Information Center regarding cultural resource sites, structures, or landscapes that could be affected by project activities.
- Based upon the sensitivity of the subject proposed project area (see Exhibit NR-6), additional technical work may be required. Where a cultural resources survey has not been performed:
 - a pedestrian survey may be required in areas of low sensitivity;
 - a pedestrian survey will be required in areas of moderate and high sensitivity; and
 - Based on findings of the pedestrian survey, additional technical studies may be required, such as geoarchaeological sensitivity analysis, Native American consultation, ethnographic studies, or other analysis scaled according to the nature of the individual project.
- For new developments that would alter historic structures (structures 50 years old or older), a qualified architectural historian shall conduct a record search and assess the potential for the project to result in significant impacts to historical resources that occur as part of the existing built environment.
- Determination of impacts, significance, and mitigation (i.e., site monitors, avoidance, and/or other measures) shall be made by a qualified professional archaeologist or architectural historian, as appropriate.
- If impacts cannot be avoided through project design, appropriate and feasible treatment measures are required. Such measures may consist of, but are not limited to actions such as data recovery excavations, photographic documentation, or preparation of design drawings documenting the resource subject to significant impacts.
- Provide the North Central Information Center with appropriate California Department of Parks and Recreation site record forms and cultural resources reports documenting resources that may be identified through technical work performed to review projects accommodated under the 2030 General Plan.
- If human remains are discovered during construction of projects occurring under General Plan buildout, the project proponent and landowner shall comply with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 7050.5.

Related Goals:	Goal NR6
Agency/Department:	Community Development and Services Agency
Funding Source:	Project applicant funds
Time Frame:	Ongoing, as construction occurs under the General Plan




LEGEND

Sensitivity for Prehistoric Resources

- High
- Moderate
- Low

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Base Map: Adapted from CASIL layers
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Exhibit Natural Resources-6. Prehistoric Resource Sensitivity



Action NR6.2 Paleontological Resources

If potential paleontological resources are detected during construction, work shall stop and consultation is required to avoid further impacts. Actions after work stoppage will be designed to avoid significant impacts to the greatest extent feasible. These measures could include construction worker education, consultation with a qualified paleontologist, coordination with experts on resource recovery and curation of specimens, and/or other measures, as appropriate.

Related Goals:	Goal NR6
Agency/Department:	Community Development and Services Agency
Funding Source:	Project applicant funds
Time Frame:	Ongoing, as construction occurs under the General Plan

Energy

Depending on how energy use is calculated, transportation accounts for 40 to 54% of all energy use in California – the largest energy-consuming sector by far (Exhibit Natural Resources-7).^{6,7} Transportation accounts for more energy consumption than heating, cooling, and powering of buildings, powering industry, or any other use. Commercial use accounts for roughly 19% of energy use in California. Residential use accounts for 18% and industrial uses account for 23% of energy use.

Transportation and land use planning techniques that reduce vehicle miles traveled (VMT) represent a tremendous opportunity for Yuba County to decrease energy use.⁸ Energy efficiency measures incorporated into new construction and retrofitting of existing structures can also conserve energy and save money for households, businesses, and civic uses throughout the County.

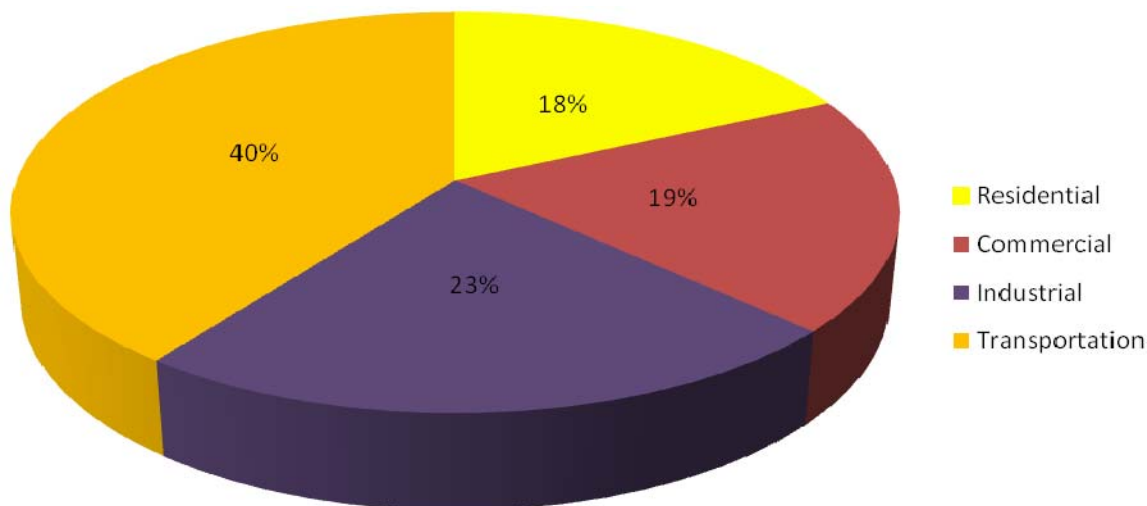


Exhibit Natural Resources-7. Total Energy Use in California, 2007

⁶ U. S. Energy Information Administration. Energy Profiles. Available online: <http://tonto.eia.doe.gov/state/>. Accessed February 24, 2010.

⁷ Lawrence Berkeley National Laboratory. Development of Energy Balances for the State of California. June 2005

⁸ Jonthan Rose Companies. 2011 (January). Location Efficiency and Housing Type – Boiling It Down to BTUs.



Monthly utility costs can be reduced through energy conservation techniques, saving on household expenses and increasing housing affordability (all else held constant). According to the 2008 Bureau of Labor Statistics' Consumer Expenditure Survey, housing in the U.S. West accounts for 35% of overall spending. Utilities and public services associated with housing accounts for 6% of consumer spending. In addition to residential building energy, community design that provides for efficient travel options (short trips, walking, bicycling, public transit) is extremely important to housing affordability and energy conservation. While, as noted above, housing costs represent about one-third of household spending, transportation is the second highest spending category, accounting for 16% of household expenses.

The County's energy conservation goals are also closely related to local economic development strategy. During this General Plan time horizon, the County has the opportunity to target, attract, retain, and grow businesses whose products and services are related to renewable energy or energy conservation techniques. The County has the opportunity to coordinate local business development activities with educational programs on renewable energy systems at Yuba College. The County has the opportunity in its entitlement authority to encourage energy conservation and renewable energy development and use, thereby reducing the cost of energy for local businesses. Making strategic use of future hydroelectric energy, along with the aforementioned measures, can create important local advantages for employment development. The County can build on the strong local agricultural base by encouraging the local production and use of renewable energy from agricultural products or waste.

Land Use, Transportation, and Community Design

The 2030 General Plan specifically addresses the environmental, household cost-savings, and local economic aspects of energy throughout the Community Development, Public Health & Safety, Natural Resources, and Housing Elements. The treatment of this topic in the General Plan is broad, recognizing the important inter-relationships between land use and transportation planning, residential and non-residential site planning and community design techniques for energy conservation, and other factors.

The County has provided a series of land use, circulation, and community design policies that are the primary means for achieving energy conservation goals during General Plan buildout. Since transportation is by far the largest end user of energy in California (and likely in the County, as well), the strategies the County is using to reduce vehicular travel demand also increase local energy efficiency. These strategies include:

- More compact development patterns and mixing of land uses that place residences and destinations closer to one another with a highly connected street system;
- High-quality pedestrian and bicycle connections between destinations;
- Development patterns and transportation infrastructure that together provide residents and businesses with more energy-efficient travel choices;
- Neighborhoods with a variety of higher-activity land uses in accessible neighborhood centers;
- A bicycle and pedestrian network that connects neighborhood centers to each other and to other destinations throughout Valley Neighborhoods; and
- Encouraging infill and redevelopment as an overall strategy to place homes and destinations closer to one another.

Please refer to the Community Development Element for more information on energy-conserving policies related to land use, transportation, and community design.



Site and Building Design

Building orientation, tree planting, and other strategies that provide shade from the summer afternoon sun are important for energy conservation considering Yuba County's mostly sunny climate. Site planning techniques that increase energy efficiency include:

- Orientation of buildings so that narrower sides of buildings face the hot western sun;
- Placement of trees or shade structures to the south and southwest of buildings; and
- Water conservation, water conserving landscaping, and stormwater management systems that reduce water use (and therefore the electricity needed to convey water).

In addition to site planning, other strategies for energy conservation relate to the selection of building materials, construction methods, appliances, and other building components. Energy efficiency measures in buildings provide both residents and businesses ongoing cost-saving opportunities. Energy efficiency retrofits could substantially improve the energy performance of the existing building stock. Encouraging well-designed, smaller residential units (with smaller spaces to heat and cool) is also a fundamental way to reduce energy demand.

Title 24 of the California Code of Regulations contains California's building standards for energy efficiency. The standards are updated periodically to consider and incorporate new energy efficiency technologies and methods..

Renewable Energy

Generation and use of renewable energy is another effective way for the County to improve its net energy efficiency (and provide ongoing cost savings to residents and businesses). Today, there are a variety of cost-effective technologies and financing mechanisms for renewable energy generation that can be used in homes, businesses, neighborhoods, and communities. Use of solar power for hot water, and electricity needs is common. Wind power is being developed on a large scale throughout the state. Fuels created in part or entirely from vegetative material are increasingly common.



Goal NR7. Energy

Improve energy efficiency, encourage renewable energy generation and use, and reduce ongoing household and business energy costs

- Policy NR7.1 New developments shall address energy conservation in landscaping methods, materials, and design.*
- Policy NR7.2 New buildings shall meet state standards for energy efficiency and should provide for renewable energy development and use, to the greatest extent feasible.*
- Policy NR7.3 New developments should be designed to take advantage of passive or natural summer cooling and winter solar access.*



- Policy NR7.4 New developments should provide street and lot orientation and lot dimensions that facilitate the use of solar energy.*
- Policy NR7.5 New developments within the Valley Growth Boundary should orient the majority of buildings so that the longer axis of the building, also known as the ridge line, is oriented east-to-west, in order to maximize the potential for passive solar heating in the winter and to minimize heat gain from the afternoon summer sun.*
- Policy NR7.6 New developments should consider energy conservation in building-site orientation and construction, with articulated windows, roof overhangs, appropriate insulation materials and techniques, and other architectural features that improve passive interior climate control.*
- Policy NR7.7 Shade trees or other appropriate plantings should be used in new developments to protect buildings from unwanted solar gain in summer months. Using deciduous trees on the southern side of structures is encouraged to allow cooling in the summer and solar gain in winter. Short front setbacks are encouraged to allow shade trees planted in the public right-of-way to provide summertime shading.*
- Policy NR7.8 New buildings should emphasize passive and natural lighting systems in architectural design to conserve electricity.*
- Policy NR7.9 New developments proposing parking lots shall incorporate shade trees or shade structures to provide a minimum of 50 percent shading (at maturity, where trees are used).*
- Policy NR7.10 The County will seek regional, state, and federal funding for making energy efficiency improvements to existing buildings on a voluntary basis with interested property owners and improvements to the public realm.*
- Policy NR7.11 The County and Yuba County Water Agency should explore opportunities related to future access to hydroelectric power, energy provision, strategic use of local energy resources for employment development, and other programs that have dual environmental-economic benefits.*
- Policy NR7.12 The County will encourage financing programs designed to facilitate the installation of renewable energy systems.*

Action NR7.1 Energy Efficiency Retrofits in Buildings and the Public Realm

The County will proactively track and apply for regional, state, and federal funding to be used for energy efficiency improvements and renewable energy systems installation in existing buildings and the public realm (public rights-of-way, etc.). The County will seek regional, state, and federal funding for energy efficient systems, energy-efficient appliances, insulation, energy-efficient doors and windows, and other improvements. Any programs to assist property owners with making energy efficiency improvements to their buildings or other property shall be on a voluntary basis with interested property owners only. The County will update zoning and development standards, as well as permit processes to encourage the use of renewable energy systems that are sited and designed to ensure public safety and reduce aviation conflicts.

Related Goals: Goal NR2, Goal NR7, Goal CD15, Goal HS5

Agency/Department: Administrative Services, Community Development and Services Agency



Funding Source:	Grant funding, low-interest loans, impact fees, General Fund, and other appropriate funding sources
Time Frame:	Ongoing, as funding is available

Mineral Resources

Yuba County contains many areas that produce mineral resources, including sand and gravel, clay, stone products, silica, silver, and gold. There are several quarries, mines, and pits where mineral resources are extracted. Most of the gravel and sand extraction areas are located along the Yuba River. Mines and dredge tailings from historic mining activities along the Yuba River and elsewhere in foothills and mountain portions of the County also produce gold and silver. Please refer to the General Plan Update Geology and Soils Background Report, which includes additional information on mineral resources, including the location of mineral resource zones.

Goal NR8. Soil and Mineral Resources

Provide for sustained mining operations as a fundamental component of the local economy

- Policy NR8.1 The County will strongly discourage residential developments outside Rural Community Boundary Areas in areas adjacent to ongoing mining operations.*
- Policy NR8.2 New developments adjacent to ongoing mining operations shall provide written notice to landowners and residents that the County will not consider ongoing adjacent lawful mining operations to be a nuisance in the instance of encroaching development.*
- Policy NR8.3 The County's zoning and development standards will be designed to protect Mineral Resource Zones and prevent introduction of incompatible land uses in areas with ongoing, viable mining operations.*
- Policy NR8.4 The County will support alternative methods for transporting aggregate, consistent with this General Plan.*
- Policy NR8.5 Mining operations shall be reviewed and conditioned to mitigate impacts to water quality and flood protection facilities.*
- Policy NR8.6 In addition to mitigating impacts, projects that extract non-renewable mineral resources within the County may require, at the discretion of the Board of Supervisors, public benefits or a fee for public benefits at a level commensurate with the resources that are extracted.*

Action NR8.1 Planning and Regulating Land Use in Mineral Resource Areas

The County will periodically review its regulations to ensure they remain consistent with the General Plan, account for changes in the environmental setting, promote a healthy local mineral extraction industry, and remain consistent with relevant state law. The County will review updates to Mineral Resource classifications and incorporate any needed revisions to the County's zoning and Open Space Diagram. The County will consider changes in designation/zoning of property when it can be demonstrated that mineral resources are not present or are not economically feasible. The County will consider modifications to its codes to allow mining operations on agricultural land if this is part of an ongoing agricultural operation and provided the land is returned to equivalent agricultural value.



Related Goals:	Goal NR8
Agency/Department:	Community Development and Services Agency
Funding Source:	General Fund
Time Frame:	Ongoing

Visual Resources

Yuba County contains three distinct regions, each of which contains varying visual resources. The valley floor has the bulk of the County’s urbanized areas, as well as most of the County’s agricultural lands, particularly croplands. From the valley floor, views of the Sutter Buttes and Sierra Nevada foothills can be seen in the distance. In addition, there are views of the rivers and rice fields in the areas surrounding those features. The foothills have views of the valley below, as well as more distant views of the Sutter Buttes and rivers. Visual resources in the mountainous regions of the County include ridgelines, mountain valleys, reservoirs and other waterbodies, and forests.



Following are guidelines for Yuba County’s built environment related to aesthetic and visual resource issues. The policies below are intended to provide the overarching guidance for more details that would be included in Zoning Ordinance, design guidelines, and other smaller-area planning documents. The County’s Zoning Ordinance, community plans, and specific plans also provide guidance for building design and architectural features, which affect visual resources.

The policies in this section on vegetation relate to biological resources policies (addressed earlier in this Element), although the focus here is on aesthetics instead of habitat preservation.

Goal NR9. Visual Resources

Preservation of Yuba County’s important visual resources

- Policy NR9.1 New developments near the Yuba, Bear, and Feather Rivers should be designed and located in a way that retains or enhances scenic views of these important visual resources.*
- Policy NR9.2 New plans and projects in western Yuba County should be designed to provide view corridors to the Sutter Buttes, where practical.*
- Policy NR9.3 Development in Rural Communities should be designed to preserve important scenic resources, landmarks, and icons that positively contribute to the rural character.*
- Policy NR9.4 New buildings in areas of natural and scenic beauty should be placed and designed in a way that preserves scenic vistas available from public rights-of-way, parks, and other public viewing areas.*



- Policy NR9.5 The County supports the designation of State Route 49 as a State Scenic Highway, and will guide land use change in areas visible from this highway in a way that preserves important aspects of the visual character.*
- Policy NR9.6 Grading and drainage for new developments in foothill and mountain areas should preserve and take advantage of the natural landforms and vegetation (see Exhibit Natural Resources-8).*
- Policy NR9.7 New construction should be designed to avoid excessive cut and fill by following the natural contour of the subject site.*

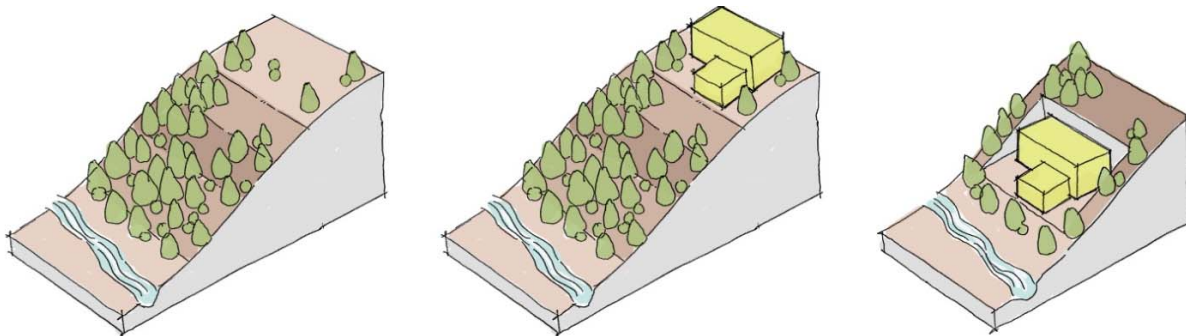


Exhibit Natural Resources-8. Preserving the Natural Terrain

Above: The illustration on the left shows existing conditions. The illustration in the middle shows a building constructed consistent with the General Plan – preserving the natural topography and vegetation. The illustration on the right shows an approach to construction that is inconsistent with the General Plan, including unnecessary changes to the natural topography and a large number of trees removed. Although the best way to preserve the natural terrain may be in site planning, there are also available techniques to “fit” buildings into hillsides, while minimizing grading.

Goal NR10. Trees and other Important Vegetation

Preserve the County’s trees and other vegetation that provide aesthetic and habitat benefits

- Policy NR10.1 Building placement, grading, and circulation should be planned to retain as much existing native vegetation as feasible, with a priority on preserving existing oak trees that have a diameter at breast height (dbh) of 6 inches or greater and all other trees that have a dbh of 30 inches or greater. The County’s policies and standards for fire safety may override consideration of retaining existing vegetation in certain circumstances.*
- Policy NR10.2 The County will encourage the preservation of healthy, attractive native vegetation during land development. Where this is not feasible, the County will require landscaping that uses climate-appropriate plant materials.*

Action NR10.1 Oak Woodlands and Tree Preservation

Following adoption of the 2030 General Plan, the County will adopt and implement a tree preservation and mitigation ordinance. This ordinance will implement state requirements for oak woodlands mitigation (as required by Public Resources Code Section 21083.4, including certain exemptions).



The tree preservation ordinance will address native oak trees measuring 6 inches or more in diameter at breast height (dbh) and all other trees greater than 30 inches dbh. The ordinance will describe the process by which the County determines the significance of impacts related to tree removal. For oak woodlands, mitigation can occur through: conservation easements; planting (up to 50% of mitigation requirement); restoration; contribution to the Oak Woodlands Conservation Fund; or equally effective mitigation formulated by the County during development of this ordinance.

Related Goals: Goal NR4, Goal NR5, Goal NR9, Goal NR10, Goal HS8

Agency/Department: Community Development and Services Agency

Funding Source: General fund and/or fees

Time Frame: Adopt ordinance by 2015

Goal NR 11. Aesthetics of the Built Environment

New construction is compatible with, and supportive of locally important aspects of the visual environment

Policy NR11.1 New developments are encouraged to include architectural styles that complement local historic styles including, but not limited to gold rush, agrarian, craftsman, bungalow, American cottage, mountain or rustic styles, and other appropriate styles (Exhibit Natural Resources-9).

Policy NR11.2 In new development areas, service, utility, loading areas, roof-mounted equipment, and noise-generating equipment shall be screened, designed, and located to reduce visibility, odor, and noise as experienced at surrounding properties and pedestrian areas.

Policy NR11.3 New utilities constructed within the Valley Growth Boundary shall be placed underground, where feasible. New utilities in rural areas outside the Valley Growth Boundary shall avoid ridge lines and blocking expansive views from public viewing locations, where feasible.

Policy NR11.4 To the maximum extent feasible, new developments shall avoid adverse light and glare effects on adjacent roads, neighboring properties, and pedestrian areas through careful location of on-site lighting, use of non-reflective paint and building materials, screening or shielding light at the source, use of vegetation screening, use of directional lighting, use of lower intensity lighting, use of timing devices or sound/motion-controlled lighting, or other equally effective means.

Policy NR11.5 The County will review and condition nonresidential, multi-family, large single-family projects, and projects located in historically significant areas for compliance with General Plan policy and design guidelines, once guidelines are developed. Large single-family projects are those that propose more than 10 units.

Policy NR11.6 The County's standards for installation of telecommunications facilities will ensure an efficient permitting process, as well as encourage locations and designs that take into consideration visibility from public rights-of-way, co-location, blending with the visual environment, and aviation safety.

NATIONAL FOLK STYLE

Generally dates to the late 19th and early 20th century. This style is typically found in more rural areas.



**AMERICAN
FOURSQUARE STYLE**

Dates to the mid to late 19th century and often pre-fabricated. Typically found in more rural areas including ranches and farmsteads.



ENGLISH TUDOR STYLE

Dates to the early 20th century. Commonly found in more urban and densely populated areas.



**NATIONAL FOLK STYLE
(Later Version)**

Dates to the early 20th century. This later style is found in more rural areas.



**VICTORIAN STYLE
WITH TUDOR ELEMENTS**

Dates to the late 19th century. This style is typically located in more urban and densely populated areas.



**BUNGALOW WITH
ARTS AND CRAFTS ELEMENTS**

Typically dates to the early 20th century. This style can be found in both urban and rural settings.



**NATIONAL FOLK STYLE
(Later Version)**

Dates to the early 20th century. This later style is found in more rural areas.



**RESIDENCE WITH
VICTORIAN ELEMENTS**

Typically dates to late 19th or early 20th century and often prefabricated. These small, yet detailed residences were especially popular in more urban settings.



**BUNGALOW WITH
ARTS AND CRAFTS ELEMENTS**

Typically dates to the early 20th century. This style can be found in both urban and rural settings.





Water Supply

The 1996 General Plan included a special emphasis on water resources, linking the County's water to its economic development potential. As noted in the 1996 General Plan, the County would benefit from the "local use of water rather than export," and careful attention to "the impact exportation may have on the cost of water to existing business and industry." The importance of Yuba County's water supply and the important connection with the local economy is just as true today. Although the County does not currently provide municipal or agricultural water to users, the General Plan and follow-on implementation actions will have a very strong influence on the use, conservation, and quality of water.

Yuba County is located along the eastern edge of the Sacramento Valley within the Sacramento River Basin, which is one of the largest river basins in California, encompassing approximately 26,500 square miles. The County is predominantly drained by the Feather, Yuba, and Bear Rivers, which flow into the Sacramento River and ultimately into the Pacific Ocean. The melting snow pack in the Sierra Nevada, in combination with the operation of numerous reservoirs within the state water storage system, maintain flows in Sacramento River year round. The western boundary of Yuba County is formed by the Feather River and the Bear River flows along the southern boundary (see Exhibit Natural Resources-10). A coalition of agricultural, environmental, and fisheries interests reached consensus on the Lower Yuba River Accord, which was developed by Yuba County Water Agency (YCWA) to provide increased flows with landmark agreements on fisheries, conjunctive use and water purchases.

YCWA is an independent government organization created in 1959 to manage and regulate Yuba County water resources. Eight districts and the City of Marysville are currently YCWA members, including: Ramirez Water District, Cordua Irrigation District, Hallwood Irrigation Company, Browns Valley Irrigation District, Brophy Water District, Dry Creek Mutual Water Company, South Yuba Water District, and Wheatland Water District. These water providers supply the County's agricultural and municipal water.

The major reservoirs in Yuba County are New Bullards Bar Reservoir on the North Yuba River, Camp Far West Reservoir on the Bear River, Englebright Reservoir on the Yuba River, Lake Francis on Dobbins Creek, and Merle Collins Reservoir on Dry Creek. These reservoirs serve multiple purposes, including hydroelectric power generation, flood control, water supply, and recreation.





The valley floor is underlain by an alluvial aquifer system that contains significant quantities of groundwater, while the foothill and mountain areas are underlain by a fractured rock aquifer. Groundwater in the foothill and mountain areas of Yuba County is not well defined. Fractured rock within the metamorphosed bedrock is considered the dominant controlling factor on the occurrence of groundwater in these areas. Wells within the foothill and mountain areas yield low to moderate flows adequate for domestic purposes but marginal for farming, ranching, or industrial uses. Rural residences in the foothills and mountain areas generally depend on groundwater, which can be especially unreliable during times of drought. Groundwater in these areas is highly variable, both with respect to supply and quality, with heavy metals and contamination from septic systems being the primary water quality problems.⁹



Groundwater is a critical source of water for agricultural and urban areas in the County, and therefore, proper groundwater management is necessary to ensure long-term sustainability of the available groundwater resources. Groundwater in Yuba County is divided by the Yuba River into two subbasins: the North Yuba Subbasin and the South Yuba Subbasin. In the recent past (1980s and 1990s), groundwater elevations in both subbasins have been increasing due to increased delivery of surface water for irrigation.

However, in the future, increased competition for groundwater supplies of suitable quality for their intended uses could result in conflicts between different water users. Important areas for groundwater infiltration (and recharging groundwater supply) are located along the County's rivers. Please refer to Exhibit Natural Resources-11.¹⁰

Surface water is also important for water supply in Yuba County. The Yuba River is the primary surface water source within Yuba County.¹¹ Although annual flows vary, the average surface water supply use in the region is about 304,000 acre-feet, with plans for expansion to 345,000 acre-feet. Yuba River water management facilities have been developed for water supply, as well as flood control, hydroelectric power generation, and other benefits. The New Bullards Bar Dam and Reservoir, Our House and Log Cabin diversion dams, Colgate Powerhouse, Narrows II Powerhouse, and other conveyance facilities make up the primary components of the Yuba River Project. The Yuba County Water Agency delivers irrigation water from the Yuba River Project to Member Units located north and south of the Lower Yuba River.

The goals, policies, and actions below address water supply and conservation, while water quality is included as a part of the Public Health & Safety Element.

⁹ Cosumnes American Bear Yuba. Integrated Regional Water Management Plan. 2006.

¹⁰ The referenced exhibit illustrates infiltration rates based on soil type alone. Some areas may not actually be useful for recharge due to the underlying geology. The area of tailings along the south bank of the Yuba River is not evaluated in this exhibit, although in reality this area would be expected to provide high rates of infiltration, as well.

¹¹ Yuba County Integrated Regional Water Management Plan. 2008.

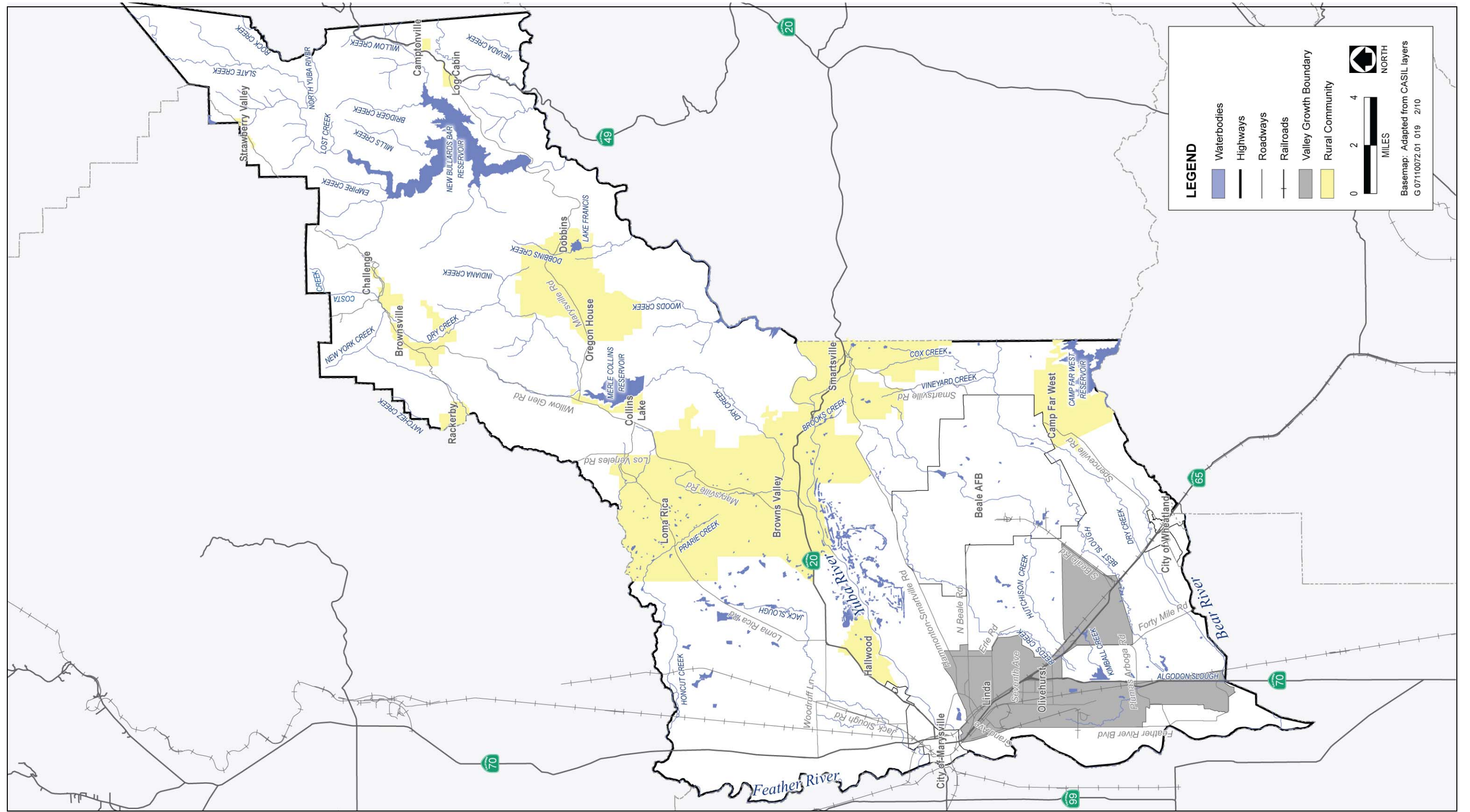


Exhibit Natural Resources-10. Yuba County Waterbodies

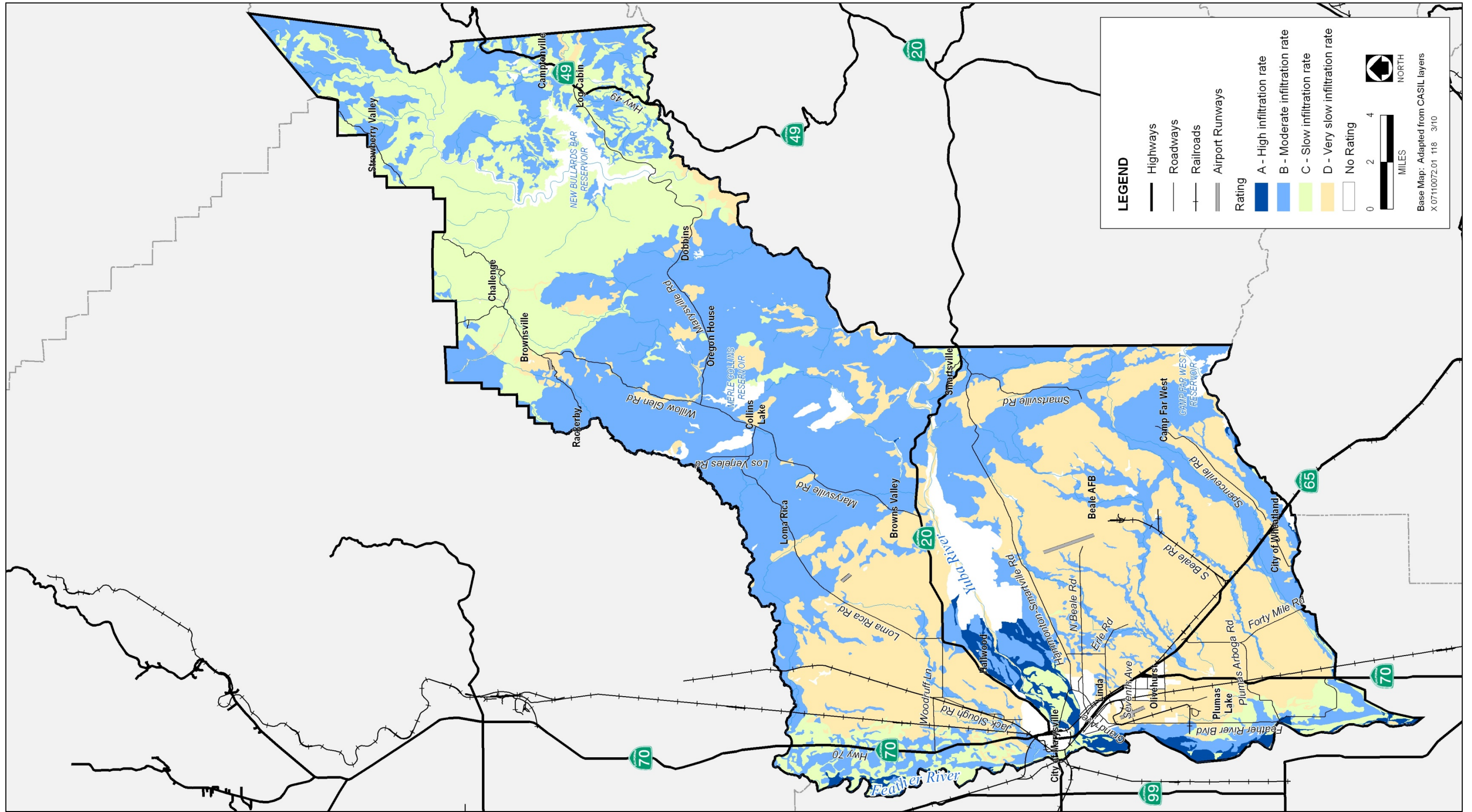


Exhibit Natural Resources-11. Groundwater Recharge Areas



Goal NR12. Water Supply

Reduce water consumption and ensure reliable water supply in normal years and during times of drought

- Policy NR12.1 For new developments, the County will manage land use change in a way that reduces the potential for overdraft of groundwater supplies, recognizes overlying groundwater rights and surface water rights, and helps to ensure that the combined use of surface and groundwater resources provides for current and future water demand.*
- Policy NR12.2 Large new developments shall coordinate with the relevant water service provider to demonstrate availability of water to the satisfaction of the County prior to approval, according to the requirements of the California Water Code Section 10631. Large developments are generally those with more than 500 dwelling units or employing more than 1,000 people, but shall be defined according to the details in Section 10912 of the California Water Code.*
- Policy NR12.3 New developments are strongly discouraged in areas with high groundwater infiltration rates and the County's development standards will restrict the amount of impervious surface that can be added in these areas in the context of new developments.*
- Policy NR12.4 The County will encourage the use of recycled water and water from irrigation districts that is not treated to urban standards for outdoor irrigation, toilet flushing, fire hydrants; commercial and industrial processes, carwashes, concrete batching, laundromats; dust control; parks, golf courses, and other landscaped areas, and other appropriate water-intensive uses.*
- Policy NR12.5 New developments shall use climate appropriate landscaping in parks and open space, landscaping within new rights-of-way, yards, and other appropriate spaces, to the maximum extent feasible.*
- Policy NR12.6 New developments shall include water conservation technologies, such as low-flow toilets, efficient clothes washers, and efficient water-using industrial equipment, in accordance with state law.*
- Policy NR12.7 Projects and plans that include recycled water systems, rainwater collection and use, climate appropriate landscaping, smaller lawns, and other water-conserving measures beyond that required by state law should enjoy proportionally lower development impact fees.*
- Policy NR12.8 Proposed residential property subdivisions that would create lots of one acre or less shall be served by a public water system meeting all State requirements for potable water supply and a public sewer system designed in compliance with County standards.*
- Policy NR12.9 New developments proposing individual wells within Rural Communities shall demonstrate an adequate supply of water without adverse impact to groundwater through testing, hydrological studies, or other means approved by the County.*
- Policy NR12.10 Prior to issuing a building permit for a habitable structure, the County will require demonstration of minimum flow rates prior to approval. The County may require*



YUBA COUNTY GENERAL PLAN

demonstration of storage capacity for systems that produce low flows, pursuant to County standards.

Policy NR12.11 Any new water wells drilled near existing County watercourses shall be set back from waterbodies such that the stream hydrology is not directly impacted.

Policy NR12.12 The County will support the Federal Energy Regulatory Commission relicensing of the Yuba River Development Project.