10 CONSERVATION AND OPEN SPACE ELEMENT

Gray Lodge Wildlife Area. Photo courtesy of Lynne Pillus, Butte County Department of Water & Resource Conservation.

State law requires that a General Plan include both a Conservation Element and an Open Space Element. The Butte County General Plan 2030 combines these two elements into a single Conservation and Open Space Element that addresses their similar and overlapping concerns.

As required by State law, this Element addresses the conservation, development, and utilization of natural resources, including forests, soils, rivers and other waters, fisheries, wildlife, minerals, water, and hydrology. This Element also addresses the protection of cultural resources, including archaeological resources, historic resources, and Native American cultural resources. The Government Code also identifies a series of six types of open space which must be addressed in the General Plan. Most of these types of open space are covered in this Conservation and Open Space Element, while a few are covered elsewhere in this General Plan. Table COS-1 lists all six types and tells where they are addressed in this General Plan.

TABLE COS-1 GOVERNMENT CODE OPEN SPACE CLASSIFICATIONS

Category	Addressed In:
Open Space for the Preservation of Natural Resources	
• Plant and animal habitat areas	• COS Section IV (page 10-20)
• Rivers, streams, lakes and their banks	• Water Resources Element (page 8-1)
• Watershed lands	• Water Resources Element (page 8-1)
• Areas required for ecological and other scientific study purposes	• COS Section IV (page 10-20)
Open Space Used for the Managed Production of Resources	
• Agricultural lands and rangelands	• Agriculture Element (page 7-1)
• Forest and timberlands	• COS Section V (page 10-33)
• Mineral resource production areas	• COS Section VI (page 10-36)
Open Space for Outdoor Recreation and Scenic Resources	
• Areas of outstanding historic or cultural value	• COS Section VIII (page 10-44)
• Parks and other areas used for recreation	• PUB Section VI (page 12-13)
• Areas of outstanding scenic value	• COS Section IX (page 10-52)
• Scenic corridors, trails and links between different open space areas	• COS Section IX (page 10-52) • PUB Section VI (page 12-13)
Open Space for Public Health and Safety	
• Areas requiring special management or regulation because of risks presented by natural hazards such as steep slopes or flooding	• Health and Safety Element (page 11-1)
Open Space in Support of the Mission of Military Installations	
• Areas associated with military bases	• COS Section VII (page 10-41)
Open Space for the Protection of Native American Sacred Sites	
• Local tribal lands	• COS Section VIII (page 10-44)
• Any Native American cultural sites	• COS Section VIII (page 10-44)

Notes: COS = Conservation and Open Space Element. PUB = Public Facilities and Services Element.

This Conservation and Open Space Element also prevents incompatible development and encroachment upon the Military Operations Areas (MOA's). Open space areas can simultaneously support agriculture, protect critical habitat and endangered species, and function as a buffer between active MOAs and neighboring residential land uses.

This Element also addresses air quality since clean air is an important natural resource and a vital component of a healthy environment.

To best serve the needs of Butte County residents and visitors, public input on issues related to Conservation and Open Space as it relates to the management of public lands is facilitated through the Coordinating Committee for consideration by the Board of Supervisors at scheduled public meetings.

This Element is divided into the following sections:

- Greenhouse Gases
- Energy
- Air Quality
- Biological Resources
- Timber Resources
- Mineral and Soil Resources
- Military Installations
- Cultural Resources
- Scenic Resources

Each of these components is divided into the following sections:

- **Background Information:** Provides background information about the various resources within Butte County. Expanded discussions about Butte County's resources are available in Chapters 8 (Recreation), 9 (Cultural Resources), 10 (Scenic Resources), 11 (Mineral Resources), 13 (Biological Resources), 14 (Energy) and 15 (Air Quality) of the Butte County General Plan 2030 Setting and Trends Report.
- **Goals, Policies and Actions:** Provides guidance to the County related to decisions affecting the resources addressed in this Element.

I. GREENHOUSE GASES

A. Background Information

Leading scientists around the world now agree that climate change is a reality and that human activities are disrupting the earth's climate by intensifying the greenhouse effect. A balance of naturally occurring gases in the atmosphere determines the earth's climate by trapping solar heat through a phenomenon known as the greenhouse effect. Greenhouse gases (GHGs) like carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, and water vapor keep solar radiation from exiting our atmosphere. In a process very similar to the windows on a greenhouse, GHGs trap so much heat that the temperature within the earth's atmosphere is rising.

GHGs are emitted through both natural processes and human activities. Emissions from human activities, such as electricity production, motor vehicle use, and agriculture, are contributing to the concentration of GHGs in the atmosphere and have led to a trend of unnatural warming of the earth's climate, which is known as global warming. The climate and natural resources in California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include, but are not necessarily limited to, more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters, such as flooding, hurricanes, and drought; and increased levels of air pollution.

Coping with climate change and reducing GHG emissions is ultimately part of the larger challenge of fostering sustainable communities. Climate change goals are most effectively accomplished when efforts are focused on integrating principles of sustainability within sectors such as transportation, buildings, ecosystems, and water systems. One way to integrate sustainability into a community is by creating compact, walkable development. Walkable, mixed-use communities provide their residents with retail and services within walking distance of their homes and workplaces, thereby reducing the need to make automobile trips and consequently, reducing GHG emissions.

California's climate change program began in 1988, when Assembly Bill (AB) 4420 directed State agencies to prepare a GHG inventory and study the impacts of climate change. Since then, California has adopted several laws to assess climate change, analyze GHG emissions and their effects, reduce emissions, and prepare for the impacts of climate change. Many of these laws and associated regulations affect local governments, although only some create specific requirements for individual communities. These laws and associated regulations include the following:

- **Executive Order S-03-05 and Assembly Bill 32: California Global Warming Solutions Act of 2006.** In 2005, Governor Arnold Schwarzenegger issued Executive Order S-03-05, which established the first statewide GHG reduction goals for California: reduce emissions to 2000 levels by 2010, reduce emissions to 1990 levels by 2020, and reduce emissions 80 percent below 1990 levels by 2050.

  AB 32, the California Global Warming Solutions Act, was approved by the legislature and signed by Governor Schwarzenegger in 2006. The landmark legislation required the California Air Resources Board (CARB) to develop regulatory and market mechanisms to reduce GHG emissions to 1990 levels by 2020, codified in Executive Order S-03-05. AB 32 also directed CARB to identify early action items that could be quickly implemented, to develop a scoping plan to identify the most technologically feasible and cost-effective strategies to achieve the 2020 target, and to create and adopt regulations requiring major emitters to report and verify their emissions.

  The Climate Change Scoping Plan (Scoping Plan), adopted in 2008 and updated in 2014 and 2017, employs a variety of GHG reduction strategies that include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based approaches like a cap-and-trade program. The plan identifies local governments as strategic partners to achieving the State goal and translates the reduction goal to a 15-percent reduction of "existing" emissions by 2020. Although "existing emission levels" is not formally defined by the Scoping Plan, State, regional, and local agencies interpreted it as referring to emissions occurring between 2005 and 2008.

- **Senate Bill 375: Sustainable Communities and Climate Protection Act of 2008.** In 2008, Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions-reductions targets established in the 2008 Scoping Plan to local land use decisions that affect travel

behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions-reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Butte County Association of Governments (BCAG) is the MPO for Butte County and its jurisdictions. Pursuant to the recommendations of the Regional Transportation Advisory Committee (RTAC), CARB adopted per-capita reduction targets for each of the MPOs rather than a total magnitude reduction target. The reduction targets for BCAG are 6-percent reduction in per-capita vehicle-related emissions for 2020 and 7 percent for 2035, relative to 2005 levels.

- **Executive Order B-30-15.** Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within California to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the State and requires State agencies to implement strategies to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy to ensure climate change is accounted for in State planning and investment decisions.

- **Senate Bill 32 and Assembly Bill 197.** In September 2016, SB 32 and AB 197 were signed into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources. Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) to address the 2030 target for the state.

- **Executive Order B-55-18.** In 2018, Governor Brown issued Executive Order B-55-18, which established an additional statewide goal of achieving carbon neutrality (no net GHG emissions) by 2045. Under this goal, any GHGs that are emitted by California must be fully offset by other activities by 2045. While this goal does not yet have the force of law, it does indicate the direction that the State is moving in and may be a reference point for future legislative action.

Other State-level climate action measures include Title 24 energy-efficiency standards for new and significantly renovated buildings, the Renewable Portfolio Standards, Clean Car Standards, Low Carbon Fuel Standard, and Innovative Clean Transit Regulations.

Butte County is committed to reduce its contribution to climate change. Because of the wide-ranging causes and effects of climate change, this General Plan addresses the issue in several elements. While the aim is to provide a framework for addressing atmosphere and climate change, the detailed policies and programs that address climate protection are located throughout the Butte County General Plan 2040.

B. Goals, Policies and Actions

Policies related to energy use and climate change are identified below and can also be found in the following elements:

- Land Use
- Agriculture
- Water Resources
- Circulation
- Health and Safety
- Public Facilities and Services

Goal COS-1	**Reduce greenhouse gas emissions to support the State's goal of carbon neutrality by 2045 by reducing emissions to 6.0 $MTCO_2e$ per person by 2030, 4.0 $MTCO_2e$ per person by 2040, and no more than 2.0 $MTCO_2e$ per person by 2050.**

Policies

COS-P1.1 Greenhouse gas emission impacts from proposed development projects shall be evaluated as required by the California Environmental Quality Act.

COS-P1.2 New development projects shall mitigate greenhouse gas emissions on-site or as close to the site as possible.

COS-P1.3 New development and reconstruction of existing development shall use sustainable building practices, including recycled-content construction materials, reusing materials, and donating or recycling construction debris.

COS-P1.4 New development should provide above-ground and natural stormwater facilities and use building designs and materials that promote groundwater recharge.

COS-P1.5 The County supports use of neighborhood electric vehicles (EVs), such as low-speed golf carts or other personal neighborhood EVs.

COS-P1.6 The County shall explore techniques to maximize carbon sequestration of the county's natural and working lands.

COS-P1.7 New development projects shall provide electric vehicle charging stations and prioritized parking for electric vehicles, hybrid vehicles, alternative fuel vehicles and carpools.

COS-P1.8 The County shall reduce emissions from disposal and decomposition of organic waste.

COS-P1.9 The County supports development of alternative technologies to derive fuel or energy from green waste and reduce air pollution by processing green waste.

Actions

COS-A1.1 Implement and update the Butte County Climate Action Plan as needed to meet State and local GHG reduction targets. The CAP shall include the following:

- A communitywide GHG emissions inventory.
- A revised business-as-usual forecast projection.
- GHG reduction benefits of State programs.
- A summary of the County's progress toward local GHG emissions reduction targets.

- A set of GHG reduction strategies and actions that, when quantified, achieve the reduction targets and continue emission reductions beyond 2040.
- A work program for the CAP.

COS-A1.2 Continue to update the County program to replace County fleet vehicles with the lowest emission technology vehicles, wherever possible, including landscaping and other equipment.

COS-A1.3 Consider the establishment of a motor vehicle emissions budget for County vehicles, including a plan to reduce motor vehicle emissions.

COS-A1.4 Coordinate with the Butte County Air Quality Management District on anti-idling programs that will reduce idling by heavy duty vehicles.

COS-A1.5 Cooperate with the school districts to develop school access plans that substantially reduce automobile trips to, and congestion surrounding, schools. Each District's School Access Plan could address necessary infrastructure improvements, potential funding sources, replacing older diesel buses with low or zero-emission vehicles, and mitigation fees to expand school bus service.

COS-A1.6 Implement curbside organics and green waste collection services for residences and businesses in accordance with SB 1383, including green waste collection where curbside collection is not feasible in the near term.

COS-A1.7 Develop education programs about the importance of reusing, recycling, or responsibly disposing of unwanted green waste, including on agricultural land and green waste associated with forest residue.

Goal COS-2 **Promote green building, planning, and businesses.**

Policies

COS-P2.1 County staff shall work cooperatively with the municipalities to ensure consistent standards for green building codes and other methods to reduce greenhouse gas emissions throughout the county.

COS-P2.2 New development shall comply with Green Building Standards adopted by the California Building Standards Commission at the time of building permit application, including requirements about low- or no-toxicity building materials.

COS-P2.3 All new County buildings and major renovations designed for public access and/or primary workspace shall meet, at a minimum, LEED-Silver or equivalent and the County shall use these buildings to demonstrate green building practices to builders, developers, homeowners, and others. Minor buildings of an accessory nature that are not used as public spaces and that do not serve as a primary workspace are not required to meet LEED-Silver or equivalent, but shall implement practical building design, construction, and maintenance solutions as set forth under the LEED rating system or equivalent.

COS-P2.4 All new subdivisions and developments should meet green planning standards such as LEED for Neighborhood Design.

COS-P2.5 The County shall work with property owners and property management groups to increase overall building electrification and adoption of modern, efficient appliances in residential rental properties.

Actions

COS-A2.1 Develop and publicize a certified green business/institution program for the County. The program could include establishing standards for energy conservation, water conservation, waste reduction and pollution prevention; assisting businesses with

understanding and achieving the standards; and recognizing businesses and institutions who meet the standards.

COS-A2.2 Develop and adopt incentives for the construction of green buildings, such as expedited permitting or reduced building fees, provided that building fee reductions are covered through outside funding sources, such as grants, and not from the General Fund.

COS-A2.3 Explore, as feasible, Building Code amendments requiring replacement of natural gas space and water heaters with electric models at end of life during the 2022 and successive Buildings Standards Code updates.

COS-A2.4 Identify and remove existing Code, permitting, or other County requirements that provide barriers to all-electric conversions of existing homes and businesses and consider incentives, such as permit streamlining or fee reductions, as feasible.

COS-A2.5 Promote and support opportunities for residents to use electric equipment, such as induction cooktops, to encourage transitioning from gas to electric appliances.

II. ENERGY

A. Background Information

Energy production, conservation and patterns of energy consumption are of growing importance to individuals, agencies, and jurisdictions. Energy price fluctuations in the late 1990s and increases in early 2001, combined with rolling blackouts and Public Safety Power Shutoffs, have led to a renewed interest in energy conservation and resilience.

One of two solar arrays that power the Butte County Administration Building. Photo courtesy of the Butte County Department of Development Services.

The majority of electrical power generation facilities in Butte County are hydroelectric projects. Many of the other facilities use mainly renewable technologies, including photovoltaics, fuel cells, landfill methane capture, biomass, and small cogeneration technologies. The County, in coordination with the Butte County Fire Safe Council, is currently exploring the feasibility of developing a privately operated biomass-to-hydrogen facility at the Neal Road Recycling and Waste Facility. Biomass is renewable organic material, such as brush trimmings or wood waste, that can be converted to energy. In addition to generating renewable energy, a biomass facility in Butte County could have many co-benefits, including reduction of wildfire fuels and increased fire safety.

The residential sector's energy demands often constitute the highest electricity sales in rural counties. Typically, the most important factors influencing residential energy consumption are the size of the house, the type of house (detached single-family or multi-family structure), the number of major appliances and the construction and siting of the structure. Residential energy needs are often fulfilled by electricity or a combination of gas and electricity. In Butte County, residential energy constituted 9

percent of total annual GHG emissions in 2019, while nonresidential energy constituted 4 percent of total annual GHG emissions.

The State of California requires local governments to address energy conservation and efficiency in new construction. The State Building Standard Code, including Title 24, applies to any new structures, additions to an existing structure, changes to the footprint of a structure, or changes to water and heating systems. In June 2001, amendments to Part 6, Title 24, of the State Administrative Code were enacted mandating more stringent conservation and efficiency requirements for new residential and non-residential construction. California updates the statewide Building Standards Code (Title 24), including energy efficiency standards, every three years. The next update, the 2022 standards, goes into effect on January 1, 2023. In Butte County, the Building Division of the Department of Development Services is responsible for enforcing all the provisions of Title 24.

Butte County has several opportunities to promote energy conservation and reduce energy consumption, mainly through enforcing construction standards and through its own operations. Butte County has already implemented many projects to reduce energy use, including solar energy programs on County facilities and land. Most notable is the Butte County Solar Energy System completed in August 2004. It is located at the Butte County Government Center on County Center Drive in Oroville. There are four separate arrays containing a total of 6,360 185-watt photovoltaic panels. The total project output is 997 kilowatts AC or 1.18 Megawatts DC. This system provides all the electrical energy needs for three County buildings. When this system became operational, it was the fifth-largest solar energy system in the United States and was among the top 25 largest solar power systems in the world. In addition, some of the County's fleet of vehicles now run on alternative fuels. A landfill gas-to-energy project is scheduled to start operation at the Neal Road Recycling and Waste Facility in 2010. In addition to County programs, agricultural and commercial businesses in the county have made tremendous strides in energy conservation and transition to renewable energy, including installation of onsite solar arrays and incorporation of other green business practices.

Butte County's efforts to support energy independence and renewable energy includes creating and launching Butte Choice Energy (BCE), a community choice aggregation (CCA) expected to launch in 2024. Once BCE is fully operational, it will purchase and/or generate electricity for residential and commercial customers in the unincorporated county, and the Cities of Chico and Oroville. Current customers will

have the option to select BCE or PG&E as their electricity provider. Electricity will continue to be delivered through existing PG&E transmission lines, and PG&E will continue to provide natural gas services. The BCE process began in 2019 when the Butte County Board of Supervisors and the Chico City Council entered into a Joint Powers Authority agreement to create the BCE Authority.

B. Goals, Policies and Actions

Goal COS-3	**Promote a renewable and resilient energy supply that relies on carbon free electricity or other low-carbon, clean energy sources.**

Policies

COS-P3.1 The expansion and increased efficiency of hydroelectric power plants in the county is encouraged, provided that such plants can be expanded and that significant adverse environmental impacts associated with such plants can be successfully mitigated.

COS-P3.2 The development of renewable energy sources in the county shall be encouraged, provided that such fuel sources can be built or expanded and that significant adverse environmental impacts associated with such development can be successfully mitigated.

COS-P3.3 The County supports the introduction and implementation of Butte Choice Energy, the County's community choice aggregation program.

COS-P3.4 The County shall promote and incentivize small-scale, on-site renewable energy and storage systems for existing residential units, nonresidential buildings, and in the agricultural sector.

COS-P3.5 The County supports efforts to increase renewable and carbon-free energy generation, including wind, solar, and biomass, and to ensure customer access to such renewable energy.

COS-P3.6 Utility lines shall be constructed along existing utility corridors wherever feasible.

COS-P3.7 Alternative energy sources such as solar shall continue to be used for County facilities, which set an example for others to follow.

COS-P3.8 Wind power generation facilities, solar power generation facilities, and other alternative energy facilities shall be encouraged in all General Plan land use designations, consistent with zoning provided that significant adverse environmental impacts associated with such development can be successfully mitigated. All new proposed energy projects shall be compatible with the Military Operations Areas (MOAs) shown on Figure LU-4.

Actions

COS-A3.1 Continue to implement the Butte County Utility-Scale Solar Guide, and expand the ability of battery storage to facility to full scale utility solar work to aid property owners and applicable community and business members in installing and maintaining solar PV.

COS-A3.2 Identify possible sites and resources for the production of non-solar energy using local renewable resources such as wind, small hydro, and biogas. Projects shall be located in areas compatible with the Military Operations Areas (MOAs) shown on Figure LU-4.

COS-A3.3 Support development of alternative technologies to derive fuel or energy from waste.

COS-A3.4 Evaluate potential land use, environmental, economic, and other constraints affecting renewable energy development.

COS-A3.5 Identify measures to protect renewable energy resources such as utility easements, rights-of-way, and land set-asides.

COS-A3.6 Work with PG&E and community partners to provide energy backup systems such as small-scale on-site battery energy storage systems and back-up power sources at key community facilities, prioritizing solar systems, battery storage, and microgrid systems, with fossil fuel generators being used only as a last resort.

COS-A3.7 Continue to support the implementation and rollout of Butte Choice Energy, the County's community choice aggregation program.

COS-A3.8 Support ongoing efforts to explore the viability of a biomass-to-hydrogen facility, in coordination with the Butte County Fire Safe Council, and encourage its development, if identified to be feasible.

Goal COS-4 Conserve energy and fuel resources by increasing energy efficiency.

Policies

COS-P4.1 The County shall continue efforts to promote energy conservation and efficiency opportunities for all residents, building/property owners, and renters, including support and promotion of programs for lower- income and disadvantaged populations.

COS-P4.2 The County shall continue efforts to promote energy conservation and efficiency opportunities for all nonresidential uses, including County facilities, office space, commercial space, and industrial space.

COS-P4.3 Energy efficiency and reduction efforts of local businesses, including agricultural businesses, shall be promoted and encouraged.

COS-P4.4 The County shall coordinate with Pacific Gas and Electric Company (PG&E) and other utility providers to promote programs that reduce energy demand.

COS-P4.5 The Zoning Ordinance shall incorporate shading requirements for new parking lots as appropriate to relieve the potential for heat islands.

COS-P4.6 The County shall work with property owners and property management groups to increase overall building electrification of

new and existing development, and adoption of modern, efficient appliances in residential rental properties.

COS-P4.7 Site and structure designs for new development projects shall maximize energy efficiency.

Actions

COS-A4.1 Continue to participate in available and future programs to provide low-cost financing for energy retrofits throughout Butte County.

COS-A4.2 Pursue grants to address existing energy inefficiencies in County facilities.

COS-A4.3 Consider giving preference to renewable energy for County purchases when feasible.

III. AIR QUALITY

A. Background Information

Butte County is in the northern portion of the Sacramento Valley Air Basin (SVAB), which includes the counties of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba. The SVAB is bounded on the north by the Cascade Range, on the south by the Greater Sacramento Air Region and San Joaquin Valley Air Basin, on the east by the Sierra Nevada, and on the west by the Coast Range. Dispersion of local pollutant emissions is predominantly affected by the prevailing wind patterns and inversions that often occur in the northern SVAB.

Existing air quality conditions in Butte County can be characterized in terms of the ambient air quality standards that the federal and State governments have established for various pollutants and by monitoring data collected in the region. There are three air quality monitoring stations in Butte County, located in Chico, on Paradise Airport Road and at the Paradise Fire Station. Monitoring data indicate that the following standards have been exceeded during the last five years (2003 to 2008) in Butte County. It should be noted that a measured exceedance does not necessarily

represent a violation since the standards are often based on average values over a period of time.

- Ozone concentrations often exceeded the federal and State standards.
- PM_{10} (particulate matter) concentrations occasionally exceeded the State standards.
- $PM_{2.5}$ concentrations occasionally exceeded the federal standards.

The US Environmental Protection Agency (EPA) has designated Butte County as a nonattainment area for the federal 8-hour ozone standard. For the federal $PM_{2.5}$ standard, the EPA has designated the lower elevations of the county as a nonattainment area, while the upper foothills are classified as attainment areas. For the carbon monoxide standard, the EPA has classified the Chico Urbanized Area as a moderate maintenance area, while the rest of Butte County is classified as an unclassified/attainment area. Butte County is in attainment for the federal PM_{10}, nitrogen dioxide and sulfur dioxide standards.

CARB has designated Butte County as a moderate nonattainment area for the State 1-hour ozone standard and as a nonattainment area for the State 8-hour ozone, PM_{10} and $PM_{2.5}$ standards. Butte County is in attainment for the State carbon dioxide, nitrogen dioxide and sulfur dioxide standards.

B. Goals, Policies and Actions

Goal COS-5 Minimize air pollutant emissions.

Policies

COS-P5.1 Air quality planning efforts shall be coordinated with local, regional, and State agencies, and shall encourage community participation in air quality planning.

COS-P5.2 Developers shall implement best available mitigation measures to reduce air pollutant emissions associated with the construction and operation of development projects.*

COS-P5.3 Only EPA Phase II certified wood burning or equivalent devices maybe installed in any residential projects.

COS-P5.4 Stationary air pollutant emission sources, such as factories, shall be located more than 500 feet and/or downwind from residential areas and other sensitive receptors.*

COS-P5.5 Residential developments and other projects with sensitive receptors shall be located more than 500 feet from stationary air pollutant sources. Residential developments and other projects with sensitive receptors (e.g. housing, schools, child care centers, playgrounds, hospitals, and senior centers) that are located within 500 feet of a high-volume roadway that carries over 50,000 vehicles per day shall incorporate feasible mitigation measures to protect sensitive receptors from harmful concentrations of air pollutants, as recommended in the California Air Resources Board's (CARB's) Air Quality and Land Use Handbook.*

COS-P5.6 New sources of toxic air pollutants shall comply with the permitting requirements of the Butte County Air Quality Management District and Section 44300 et. seq. of the California Health and Safety Code.*

COS-P5.7 The County shall cooperate with Butte County Air Quality Management District in efforts to reduce traffic-related emissions below levels that violate national ambient air quality standards in Butte County.

COS-P5.8 The County shall encourage the Butte County Air Quality Management District to work in partnership with fire managers to balance natural resource needs (e.g., prescribed burning) with air quality needs.

Actions

COS-A5.1 Support Air Quality Management District programs that would offer a rebate or incentive to replace wood-burning fireplaces and stoves with EPA-certified wood stoves or gas stoves.

COS-A5.2 Expand services and conduct outreach to discourage burning household waste.

IV. BIOLOGICAL RESOURCES

A. Background Information

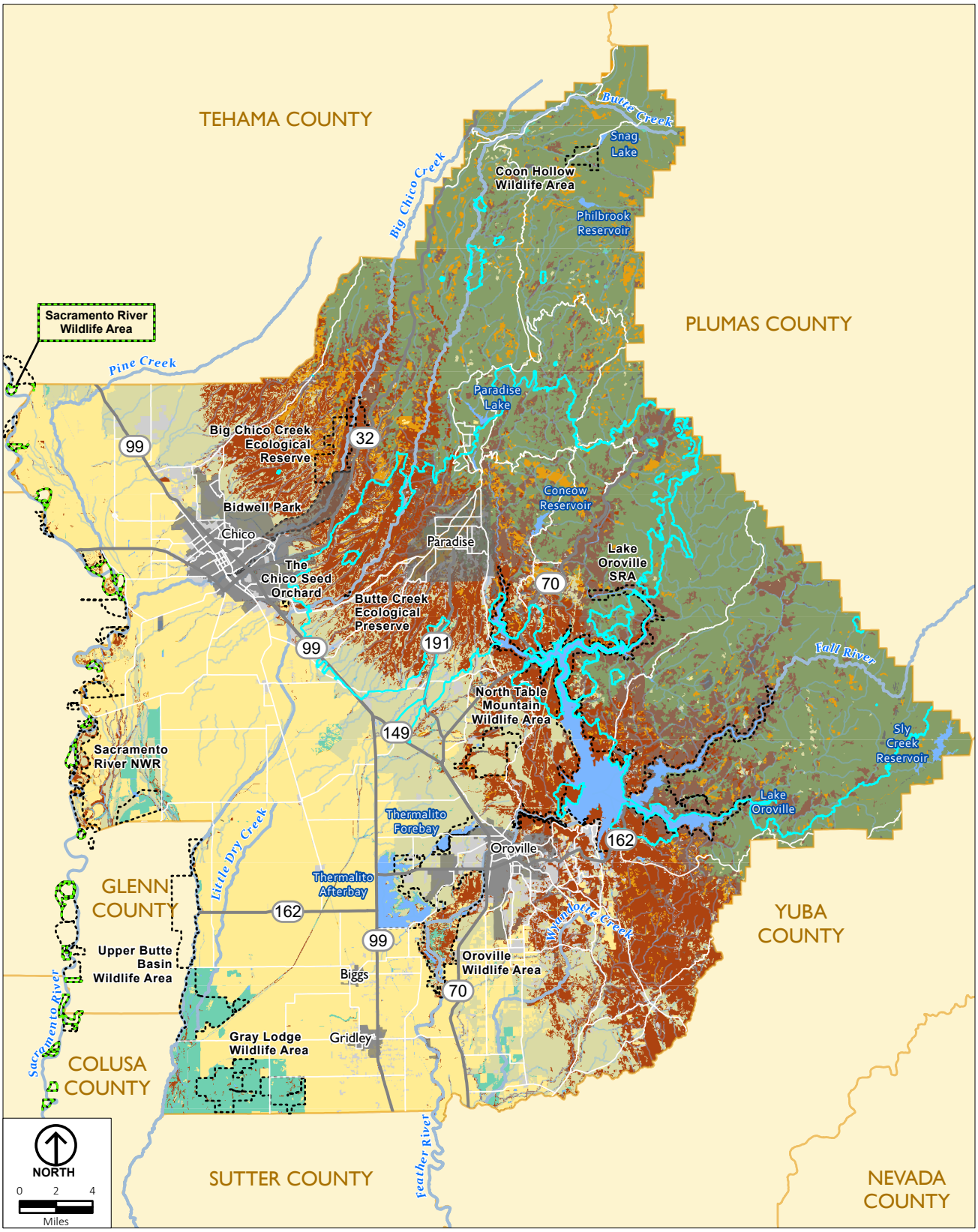
This section provides background information about Butte County's biological communities, special-status species, important wildlife areas and migratory deer herds.

The County is currently participating in a comprehensive conservation planning effort, the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP). Coordinated by BCAG, the Butte Regional HCP/NCCP is an assessment of the county's natural resources and a strategy for protecting those resources while allowing for future growth and development in Butte County. The focus of the Butte Regional HCP/NCCP is on the western half of the county, where there is the greatest conflict between urban development and federal and State protected species. The goals of the Butte Regional HCP/NCCP include mapping the range of federal- and State-protected species, important habitats, and ecosystems; providing for or contributing to the recovery of endangered species; contributing to the conservation of natural communities and their associated native species; and allowing for a streamlined process of environmental permitting. Since the summer of 2007, two of the five phases of the Butte Regional HCP/NCCP have been completed, with a final project completion date expected in mid-2011.

1. Biological Communities

Ten general types of biological communities occur in Butte County. The distribution of these communities is closely associated with the varying topography and hydrology of the geographic subregions. These ten communities are displayed in Figure COS-1 and include:

- **Conifer Forest.** Several types of conifer forest occur in Butte County, including montane hardwood-conifer, ponderosa pine, Sierran mixed conifer, red fir, and subalpine conifer. The forest types vary in the dominant species and elevations at which they occur. Conifer forests provide habitat for many wildlife species.



Source: CDFFP, CALFIRE, FRAP, CDFW VegCamp, USDA Forest Service Region 5 Remote Sensing Laboratory (RSL) data

Vegetation Community Type

- Incorporated Jurisdictions
- Parks, Preserves, Wildlife Areas
- Streams / Channels
- 2018 and 2020 Fire Perimeters
- Agriculture
- Barren/Other
- Conifer Forest
- Conifer Woodland
- Desert Shrub
- Desert Woodland
- Hardwood Forest
- Hardwood Woodland
- Herbaceous
- Shrub
- Urban
- Water
- Wetland

Figure COS-1

VEGETATIVE COMMUNITIES AND WILDLIFE AREAS

Grasslands and agricultural land provide important habitat for owls, hawks, and other species. Photo courtesy of Richard Coon, General Plan 2030 Citizens Advisory Committee member.

- **Oak Woodland.** Oak woodland community types include valley oak woodland, blue oak woodland and blue oak-foothill pine. Oak woodlands are scattered throughout the county but are concentrated in the transition area between the lower valley and higher elevations of the county. Oak woodlands provide wildlife with nesting sites, cover, and food. Oak woodlands are common locally and regionally; however, native oak trees and woodland habitats are declining statewide because of development and land management practices.

- **Riparian Woodland.** Riparian areas occur where land meets fresh water, such as a wetland or a streambank. Riparian woodlands occur along portions of the Sacramento River, Feather River, Thermalito Afterbay and Forebay, Thermalito Diversion Pool and along numerous smaller perennial and ephemeral drainages. Riparian woodlands are typically dominated by a mixture of trees and shrubs, and provide food, water and migration and dispersal corridors, as well as nesting and thermal cover for many wildlife species. Riparian habitats are considered sensitive natural communities and should be given special consideration because they

provide several important ecological functions, including streambank stabilization, water quality maintenance, and essential habitat for wildlife and fisheries resources.

- **Chaparral**. Chaparral occurs on foothill slopes, within the understory of woodlands, and at higher elevations of Butte County. This community provides habitat for a variety of birds and mammals.
- **Annual Grasslands.** Large, open areas of annual grasslands occur primarily in the central portion of the county and are typically grazing pastures for livestock. Annual grasslands encompass vernal pool terrains and form the understory for oak woodland and occur as vacant parcels in developed areas. Annual grasslands provide foraging and breeding habitat for many wildlife species.
- **Open Water.** Open water communities in Butte County include several large reservoirs, numerous small ponds throughout agricultural areas, and perennial and ephemeral drainages. These communities provide habitat for fish, resident and migratory birds, amphibians, aquatic reptiles, and some mammals.
- **Wetlands.** Wetland communities in Butte County include freshwater marshes along the margins of drainages and open water habitats, wet meadows at higher elevations in the eastern portion of the county and vernal pools in the central portion of the county. Wetlands are considered sensitive natural communities by several resource agencies and should be given special consideration because they provide a variety of important ecological functions and essential habitat for wildlife resources, including several special status species. Natural wetland habitats are steadily declining compared to their historical distribution, as a result of land management practices and development activities. The US Army Corps of Engineers, US Fish and Wildlife Service and DFG have policies and regulations that protect wetland habitats.
- **Agricultural Land.** Much of the western half of the county is used for agriculture. Row crops and rice fields can provide relatively high-value habitat for wildlife, particularly as foraging habitat.
- **Barren Land.** Unvegetated land may include areas of vertical riverbanks and exposed rock, as well as unvegetated lands in urban areas. Although barren ground has limited use for most wildlife, some species prefer areas with limited or very low-growing vegetation.
- **Urban Areas.** Biological communities in urbanized areas are relatively limited and generally provide low value for wildlife.

2. Special-Status Species

Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Act or other regulations, and species that are considered by the scientific community to be sufficiently rare to qualify for such listing. As of 2006, 77 special-status plant species, 47 special-status wildlife species and five special-status fish species have been documented or have the potential to occur in Butte County. Locations of special-status species occurrences documented in the California Natural Diversity Database (CNDDB) are presented in Figure COS-2.

3. Important Wildlife Areas

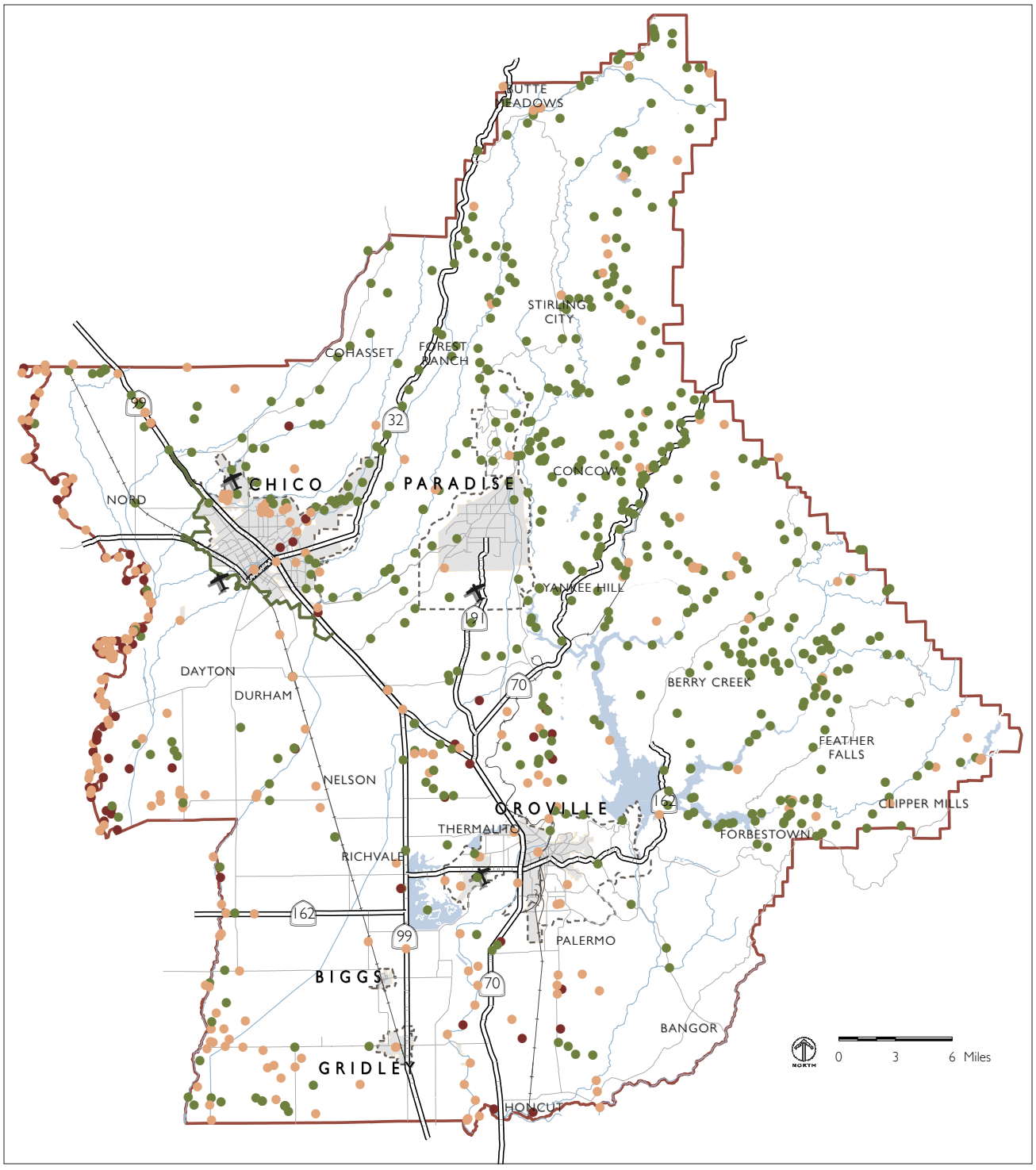
Important wildlife areas in Butte County are public lands that have been conserved for the benefit of wildlife, including the Big Chico Creek Ecological Preserve, the Butte Creek Ecological Preserve, Bidwell Park, Table Mountain, the Gray Lodge Wildlife Area, the Oroville Wildlife Area, the Sacramento River Wildlife Area, and the Sacramento River National Wildlife Refuge. These important wildlife areas are shown in Figure COS-1.

4. Migratory Deer Herds

Protection of Butte County's resident and migratory deer herds has long been an issue of concern for the County.

In the early 1980s, the California Department of Fish and Game (DFG) developed management plans for migratory deer herds in California, which included migratory deer ranges in Butte County. Butte County relied upon DFG's deer range maps to establish zones where development is restricted to protect the deer herds. As part of the General Plan 2040 effort, wildlife biologists updated the map of winter and critical winter range migratory deer herd areas. The revised map is displayed in Figure COS-3.

Migratory deer herds migrate from higher elevations in Plumas and Lassen Counties to lower elevation winter range areas in Butte County. As shown in Figure COS-3, there are some portions of this winter range in Butte County that are critical winter range areas, which include habitat that is critical to the survival of



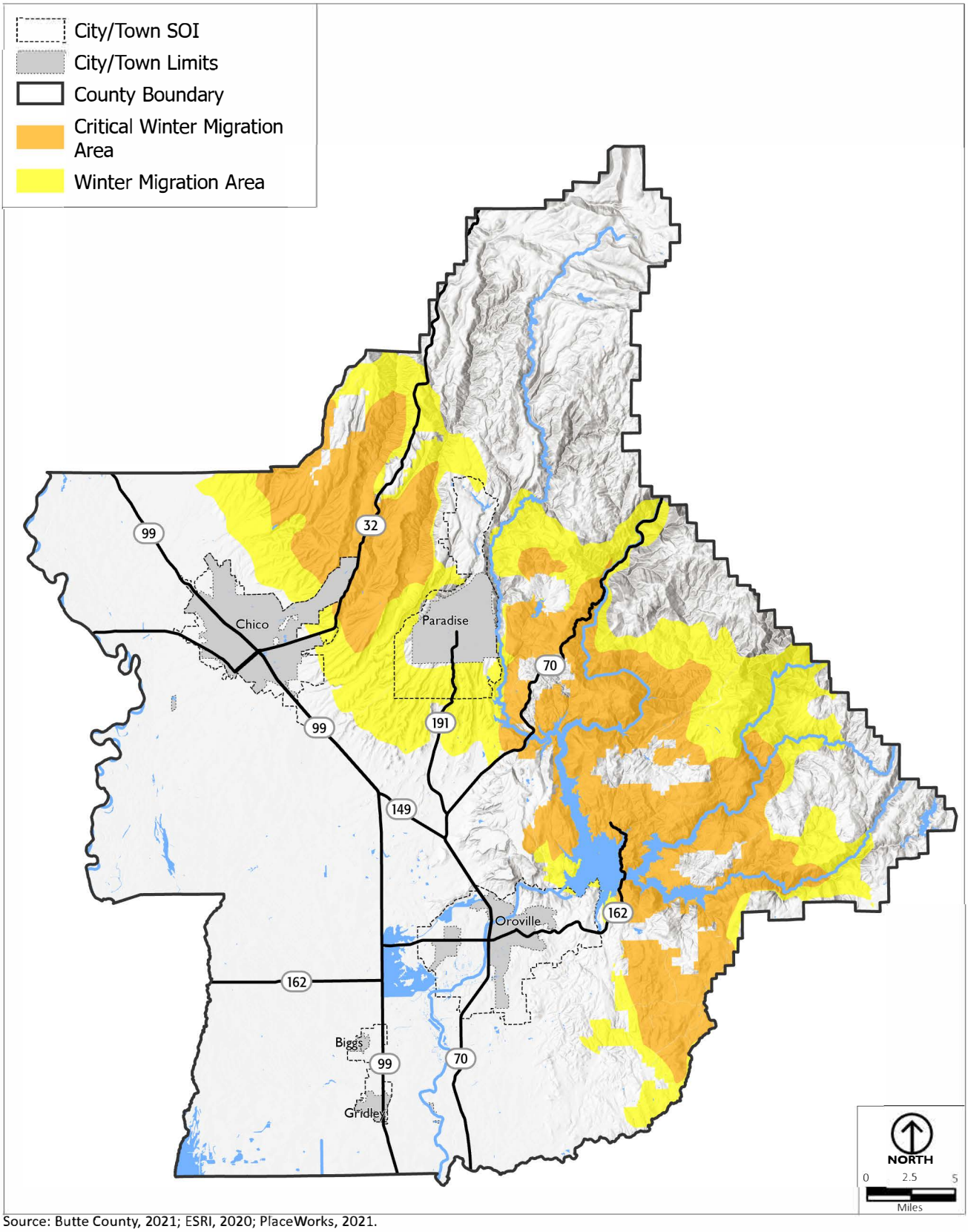
Source: Butte County GIS, 2009; California Department of Fish and Game, CNDDB March 2009.

Special Status Species
- Plant Species
- Animal Species
- Sensitive Natural Communities

- Airports
- Greenline
- Highways
- Railroad
- Major Roads
- Sphere of Influence
- City/Town Limits
- County Boundary

Figure COS-2

CALIFORNIA NATURAL DIVERSITY DATABASE OCCURRENCES IN BUTTE COUNTY



Source: Butte County, 2021; ESRI, 2020; PlaceWorks, 2021.

Figure COS-3

MIGRATORY DEER HERD AREAS

the migratory deer herds during severe winter conditions. The non-critical areas, also mapped in Figure COS-3, provide habitat that is suitable for winter conditions, but not critical during severe winter conditions.

The updated deer herd winter range mapping developed for General Plan 2030 was based on several factors that affect habitat value, including vegetation, elevation, and terrain preferences, as well as the extent of fire suppression activities, since fire suppression can change the ecological conditions and lead to habitat deterioration. In addition, data showing actual existence of the deer herds was considered in the mapping process.

These updated maps were used to establish the Deer Herd Migration Area Overlay, which is described in the Land Use Element.

5. Fish Species

Butte County was historically one of the centers of wild salmon and steelhead, and the multitude of species dependent upon them, in the State of California. Oroville Dam ended the massive salmonid runs on the Feather River. Butte Creek and Big Chico Creek are the only undammed tributaries left in Butte County that support wild strains of endangered spring-run Chinook salmon and steelhead. Little Butte Creek and Dry Creek also support runs of critically designated steelhead. Although recovery efforts have boosted the population over the last 15 years, recent runs have declined significantly. Most measures show an average count of wild Butte Creek spring-run Chinook salmon of nearly 10,000 fish per year from 1998 to 2008. However, in 2009 only 2,561 fish returned to Butte Creek and a handful to Big Chico Creek.[1] Nevertheless, Butte Creek supports the largest run of wild, naturally spawned, spring-run Chinook salmon in California.[2] Protecting these last strongholds for these species is critical to our society.

[1] California Department of Fish and Game Surveys.

[2] Butte County General Plan 2030 Setting and Trends Report, 2006.

B. Goals, Policies and Actions

Goal COS-6 **Engage in cooperative planning efforts to protect biological resources.**

Policies

COS-P6.1 The County shall coordinate with applicable federal, State, regional and local agencies on natural resources and habitat planning.

Actions

COS-A6.1 Continue to work with the Butte County Association of Governments and the five municipalities to develop and implement the Butte Regional Conservation Plan, and subsequently update it as necessary.

COS-A6.2 Work with Butte Creek Canyon residents and local groups toward adopting a planning strategy for a Butte Creek Canyon overlay. The purpose of the planning strategy is to facilitate the protection and preservation of the historical and ecological foundation of Butte Creek Canyon, including the survival of salmon, steelhead and other sensitive plants and animals such as the East Tehama Deer Herd, preservation of historical sites and ecological preserves, and the optimum balance of recreation and residential use.

Goal COS-7 **Conserve and enhance habitat for protected species and sensitive biological communities.**

Policies

COS-P7.1 Conservation easements that protect habitat areas, habitat corridors and sensitive biological resources shall be promoted.

COS-P7.2 Development patterns shall be encouraged to conserve habitat for protected species and biological resources.

COS-P7.3 Creeks shall be maintained in their natural state whenever possible, and creeks and floodways shall be allowed to function as natural flood protection features during storms.*

COS-P7.4 New development projects shall mitigate their impacts in habitat areas for protected species through on- or off-site habitat restoration, and/or project design and through the provisions of the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) within the HCP/NCCP Planning Area, upon the future adoption of the HCP/NCCP.*

COS-P7.5 No new development projects shall occur in wetlands or within significant riparian habitats, except within the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) Planning Area where such development is consistent with the conditions of the HCP/NCCP, upon the future adoption of the HCP/NCCP.*

COS-P7.6 New development projects shall include setbacks and buffers along riparian corridors and adjacent to habitat for protected species, except where permitted in the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) Planning Area and where such development is consistent with the conditions of the HCP/NCCP, upon the future adoption of the HCP/NCCP.*

COS-P7.7 Construction barrier fencing shall be installed around sensitive resources on or adjacent to construction sites. Fencing shall be installed prior to construction activities and maintained throughout the construction period.*

COS-P7.8 Where sensitive on-site biological resources have been identified, construction employees operating equipment or engaged in any development-associated activities involving vegetation removal or ground disturbing activities in sensitive resource areas shall be trained by a qualified biologist and/or botanist who will provide information on the on-site biological resources (sensitive natural communities, special-status plant and wildlife habitats, nests of special-status birds, etc.), avoidance of invasive plant introduction

and spread, and the penalties for not complying with biological mitigation requirements and other State and federal regulations.*

COS-P7.9 A biologist shall be retained to conduct construction monitoring in and adjacent to all habitats for protected species when construction is taking place near such habitat areas.*

COS-P7.10 Long-term recovery plans for areas affected by wildfire shall incorporate native species and enhance wildlife habitat.

COS-P7.11 The County shall work with the military to ensure that land uses under the Military Operations Areas (MOAs) encourage the fulfillment of the County's biological resource protection goals.

Actions

COS-A7.1 Develop a set of guidelines for evaluating development project impacts to habitat in locations outside of the approved Butte Regional Conservation Plan Planning Area, as well as for requiring specific mitigations for impacts that are identified.

COS-A7.2 Establish a mitigation bank program for impacts to habitats for protected species, such as oak woodlands, riparian woodlands, and wetlands, in locations outside of the approved Butte Regional Conservation Plan Planning Area, using mitigation fees on new development projects as a funding mechanism.

COS-A7.3 Seek funding to conduct a study to develop an approach to protecting significant specimen trees and tree groves.

Goal COS-8 Maintain and promote native vegetation.

Policies

COS-P8.1 Native plant species shall be protected, and planting and regeneration of native plant species shall be encouraged, wherever possible, in undisturbed portions of development sites.

COS-P8.2 New landscaping shall promote the use of xeriscape and native tree and plant species, including those valued for traditional Native American cultural uses.

COS-P8.3 Native plants shall be used wherever possible on County-owned and -controlled property.

COS-P8.4 Introduction or spread of invasive plant species during construction of development projects shall be avoided by minimizing surface disturbance; seeding and mulching disturbed areas with certified weed-free native mixes; and using native, noninvasive species in erosion control plantings.*

Goal COS-9 Protect identified special-status plant and animal species.

Policies

COS-P9.1 A biological resources assessment shall be required for any proposed development project where special-status species or critical habitat may be present. Assessments shall be carried out under the direction of Butte County. Additional focused surveys shall be conducted during the appropriate season if necessary. Upon adoption of the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP), assessment requirements of the HCP/NCCP shall be implemented for development projects within the HCP/NCCP area.*

COS-P9.2 If special-status plant or animal species are found to be located within a development site, proponents of the project shall engage in consultation with the appropriate federal, State, and regional agencies and mitigate project impacts in accordance with State and federal law. Upon adoption of the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP), mitigation requirements of the HCP/NCCP shall be implemented for development projects within the HCP/NCCP area. Examples of mitigation may include:*

a. Design the proposed project to avoid and minimize impacts.

b. Restrict construction to specific seasons based on project-specific special-status species issues (e.g., minimizing impacts to special-status nesting birds by constructing outside of the nesting season).

c. Confine construction disturbance to the minimum area necessary to complete the work.

d. Mitigate for the loss of special-status species by purchasing credits at an approved conservation bank (if a bank exists for the species in question), funding restoration or habitat improvement projects at existing preserves in Butte County or purchasing or donating mitigation lands of substantially similar habitat.

e. Maintain a minimum 100-foot buffer on each side of all riparian corridors, creeks and streams for special-status and common wildlife.

f. Establish setbacks from the outer edge of special-status species habitat areas.

g. Construct barriers to prevent compaction damage by foot or vehicular traffic.

Goal COS-10 **Facilitate the survival of deer herds in winter and critical winter migratory deer herd ranges.**

Policies

COS-P10.1 Development projects that are designed to accommodate herd migration patterns shall be allowed and encouraged, with remaining areas protected under conservation easements, within the Winter and Critical Winter Deer Herd Migration Area Overlays to protect migratory deer herd ranges.

Actions

COS-A10.1 Coordinate with the California Department of Fish and Game to monitor the effects of development on migratory deer herds.

COS-A10.2 Seek funding for and conduct more detailed studies about deer herd migration and use those studies to update the Deer Herd Migration Area Overlay if needed.

V. TIMBER RESOURCES

A. Background Information

The combination of ample rainfall, a long growing season and deep soils result in good growing conditions for mixed conifer forest in Butte County. These timber resources are primarily located in the northeastern portions of the county at elevations between approximately 2,200 and 6,200 feet. The major vegetation community associated with timberlands in Butte County is westside mixed conifer (Sierra mixed conifer), which is dominated by sugar pine, ponderosa pine, Douglas fir, white fir, and incense cedar. In 2007, almost 66 million board feet of timber was produced in Butte County, with a value of over $16 million.

Timberlands occur on both public and private lands. Some logging occurs in the areas managed by the US Forest Service within the Lassen and Plumas National Forests. Sierra Pacific Industries, a timber company, is the largest private landowner in Butte County, with land holdings located primarily in the northern part of the county, near the Lassen National Forest. Timber harvests on private lands are primarily regulated by the California Department of Forestry and Fire Protection through the timber harvesting plan review process.

Policies affecting timber resources are also provided in the fire hazards section of the Health and Safety Element.

B. Goals, Policies and Actions

Goal COS-11 **Protect timber resources and promote sustainable timber production.**

Policies

COS-P11.1 The County supports and promotes sustainable timber production.

COS-P11.2 The County shall support and cooperate with CAL FIRE in its responsibilities related to timber and forest practice laws.

COS-P11.3 The County shall coordinate with CAL FIRE to ensure timber harvesting plans are kept up-to-date and implemented to continue sustainable harvesting of timber resources.

COS-P11.4 The County shall coordinate with the US Forest Service (USFS), Bureau of Land Management, California Department of Water Resources, and California Department of Fish & Wildlife to proactively monitor the landscape to prohibit the illegal conversion of timberlands for use in cannabis production.

COS-P11.5 Urban development shall not limit the financial sustainability of timber operations.

COS-P11.6 Residential uses on or adjacent to parcels zoned Timber Production shall not be allowed to negatively impact continued timber harvesting operations.

COS-P11.7 Lot line adjustments shall be allowed on substandard Timber Production Zone parcels to consolidate logical timberland management units or to accommodate a valid public interest as determined by Butte County.

COS-P11.8 Public facilities shall generally not be located in the Timber Production Zone if the facility would have a significant adverse effect on the production of timber, unless alternative sites for an essential public use cannot be located elsewhere.

COS-P11.9 The County encourages the development of local forest products and biomass energy facilities to provide a way to utilize low-value forest products and wood waste.

Actions

COS-A11.1 Coordinate with public land managers on timber management practices to promote healthy, sustainable forests and local economic benefit.

COS-A11.2 Provide education materials from State agencies such as CAL-FIRE promoting sustainable forest practices in the county.

COS-A11.3 Seek the advice of a Registered Professional Forester when making decisions regarding forest management.

COS-A11.4 Coordinate with private landholders, non-profit organizations, and local, State, and federal agencies to promote the safety and well-being of residents and visitors in the Wildland-Urban Interface (WUI) zones by advancing appropriate forest management and fuels reduction projects near infrastructure.

Goal COS-12 Support resilient forest lands that resist forestry pests and diseases.

Policies

COS-P12.1 The County shall partner with federal, State, tribal, and regional partners to proactively manage forested lands to reduce fire risks and pest outbreaks.

COS-P12.2 The County shall coordinate with CAL FIRE, USFS, Bureau of Land Management, and other landowners to cover exposed ground with organic and woody materials left on-site after timber harvesting to prevent regrowth of invasive species.

Actions

COS-A12.1 Work with the USFS, Bureau of Land Management, local tribal nations, and regional park districts to expedite the approval process for the removal of woody material and dead trees on public and private land to minimize the spread of diseases and infestation.

COS-A12.2 Explore grants and other funding sources to offset the costs associated with the removal of dead and dying trees on private property post-fire or drought.

COS-A12.3 Establish facilities in Butte County that can store and process wood and debris from forest fuel-clearing activities, creating a market for biomass feedstock.

VI. MINERAL AND SOIL RESOURCES

A. Background Information

Mining activities in Butte County focus on sand and gravel. Although other mineral resources have been or are extracted in Butte County, sand and gravel mining plays the greatest role in the County's economy.

Most of the county's sand and gravel deposits occur in two regions, along the Sacramento River and within a band running from north to south down the center of the county. Gravel in the Sacramento River is no longer extensively mined, due to environmental constraints and the difficulty of working in an area with a high water table. Gravel mining is most active in the county's central "gravel belt," the transitional region where sediments washed down from the Sierra Nevadas into the slower moving rivers of the flat valley. In the past, these residual gravel deposits were mined for their gold content. Today, they are primarily mined for gravel and sand, to be used in combination with portland cement or asphalt compounds in construction and road building. Sand and gravel deposits are also mined for silica, used in the production of cleansers, fiberglass, abrasives, and toothpaste.

Gold is also mined in Butte County. The main form of gold mining in Butte County has been placer mining, although underground mining took place historically. Placer mining involves removing the surface gold-bearing gravels, and either washing or chemically extracting the gold ore from the gravel. There are no permitted placer mines in Butte County, although the Department of Fish and Game regulates suction dredge mining within the county's creeks and rivers. In addition, buried placer deposits can be obtained through drift mining, which involves digging into the ground and tunneling horizontally to extract the gravels. Another kind of gold mining is lode mining, which often involves open pit mines and blasting mountains

to expose deep veins of gold. Examples of lode gold mines in Butte County include the Blue Lead, Ohio Dix, and Carr mines. Buried placer deposits are located throughout the county and are not easily identified.

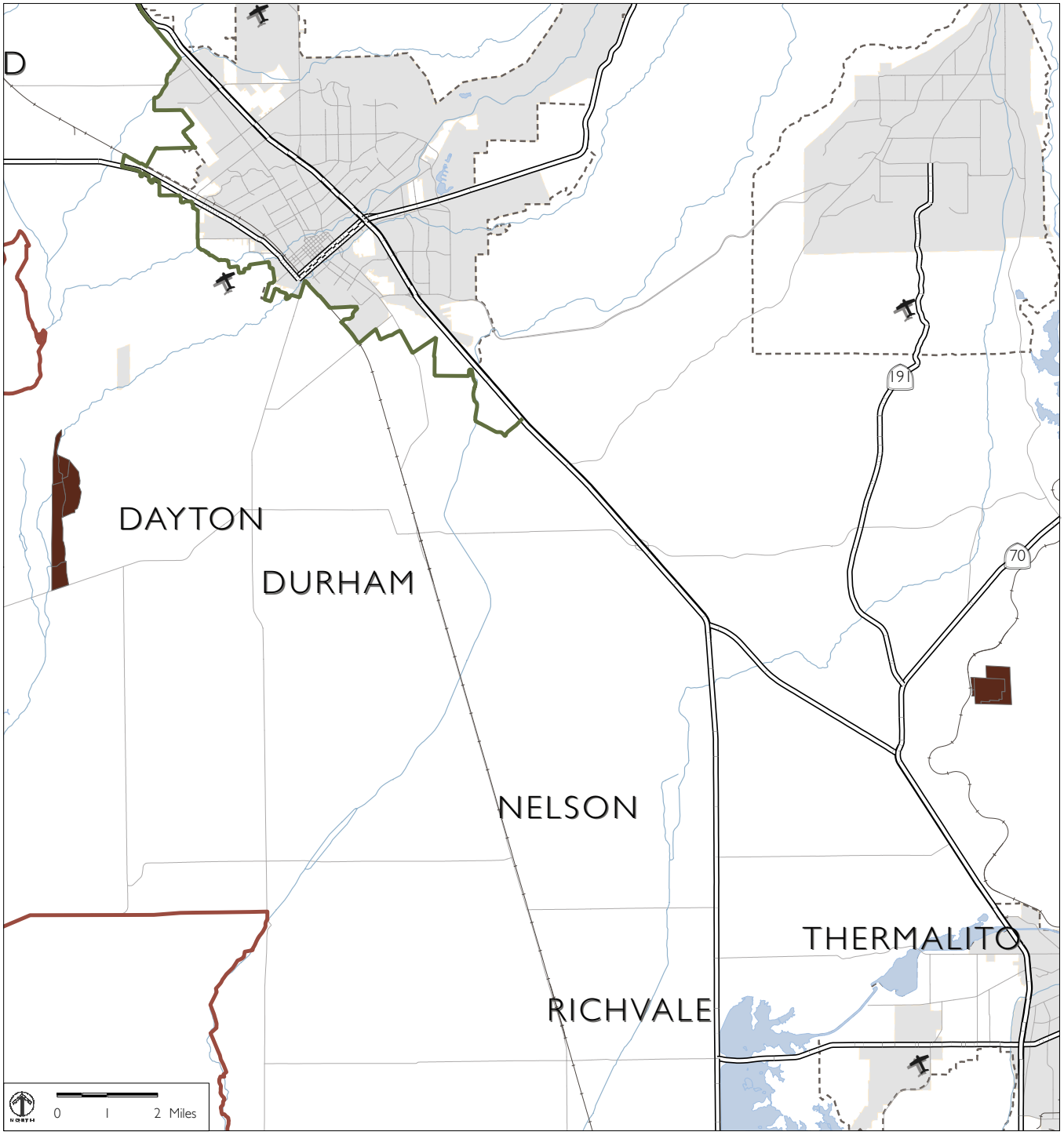
Conflicts between mining and urban uses throughout California led to passage of the Surface Mining and Reclamation Act of 1975 (SMARA). This Act establishes policies for conservation and development of mineral lands and contains specific provisions for the classification of mineral lands by the State Geologist.

SMARA requires all cities and counties to incorporate in their General Plans mapped designations approved by the State Mining and Geology Board (SMGB). These designations include lands categorized as Mineral Resource Zones (MRZs), the most significant of which is a designation of mineral resources that are of regional or statewide significance. The local General Plan must recognize these categories and establish policies and programs for the conservation and development of these resources.

A rock quarry near Bangor. Photo courtesy of the Butte County Department of Development Services.

The State Geologist has not yet mapped the mineral resources in Butte County. However, public or private entities can petition the SMGB to classify specific lands that contain significant mineral deposits and that are threatened by land use incompatibilities. In 1994, the SMGB received a Petition for Mineral Classification for Martin Marietta Materials Table Mountain Quarry near Oroville. This petition

involves approximately 320 acres of land that is considered an active basalt mine. The SMGB concluded that part of this mine is classified as a mineral resource of regional or statewide significance. In addition, in 2001, the State classified a portion of the M&T Chico Ranch, a previously-proposed mining site located adjacent to Little Chico Creek 5 miles southwest of Chico, as a mineral resource of regional or statewide significance. However, the M&T Chico Ranch mine proposal was not approved and is not currently being considered for mining under County permit. These two mineral resource areas are shown in Figure COS-4.



Source: Butte County GIS, 2009.

Figure COS-4

MINERAL RESOURCES ZONE 2 SITES

B. Goals, Policies and Actions

Goal COS-13 **Protect economically viable mineral resources and related industries while avoiding land use conflicts and environmental impacts from mining activities.**

Policies

COS-P13.1 Sufficient aggregate resources to meet the County's fair share of future regional needs shall be conserved.

COS-P13.2 Mineral resources identified by the State to be of regional or statewide significance for mineral resource extraction shall be conserved.*

COS-P13.3 Permitted uses on lands containing and adjacent to important mineral resources shall be restricted to those compatible with mineral extraction, except in cases where such uses offer public benefits that outweigh those of resource extraction.

COS-P13.4 Prior to approval of any new or expanded mining operation, the applicant shall demonstrate that the operation will not create significant nuisances, hazards, or adverse environmental effects.

COS-P13.5 New mineral haul routes shall avoid landslides, highly erodible soils, residential areas, and schools, when feasible.

COS-P13.6 Discretionary development projects in the vicinity of permitted mining extraction sites or along existing haul routes shall record a notice of the right to mine against the property for which a discretionary permit is sought. The notice shall advise owners and subsequent interests in ownership that the existing mining operation has a permitted right to continued mining operations.

COS-P13.7 Mined property shall be left in a condition suitable for reuse in conformance with the General Plan land use designations and in accordance with the California Surface Mining and Reclamation Act (SMARA).

VII. MILITARY INSTALLATIONS

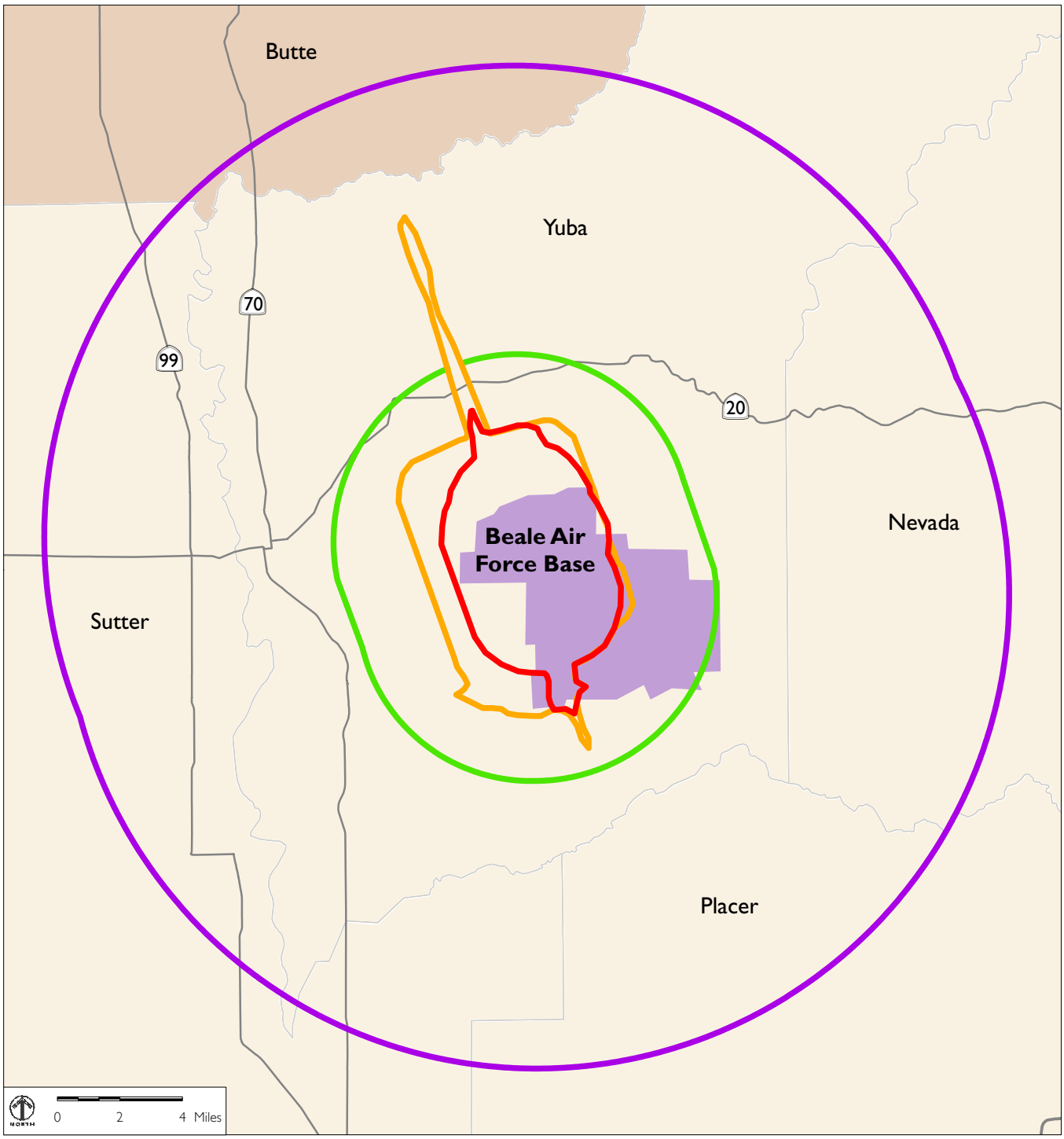
A. Background Information

There are no military installations located within Butte County. However, Beale Air Force Base is in neighboring Yuba County, and a portion of unincorporated Butte County is included within its Military Influence Area (MIA). The purpose of the MIA is to ensure compatibility between military land uses and adjacent community land uses. The MIA encompasses approximately 19,060 acres in the southeastern portion of Butte County as shown in Figure COS-5. All of the MIA within Butte County is part of MIA Zone III, which is the furthest zone from the Air Force Base and includes areas within 15 miles of the base's runway.

Beyond the boundaries of the Beale Air Force Base, there are several Military Operation Areas (MOAs) also known as "freeways in the sky" that are training routes for the military. The MOAs identify a floor elevation, which is the lowest operating height the aircrafts will fly. MOA boundaries and minimum altitudes are identified in Figure LU-4.

To protect the integrity of the MOAs, all new development that could penetrate the defined floor elevation within an MOA shall be subject to discretionary review for hazards to aircraft including but not limited to:

- Uses that release into the air any substance that would impair pilot visibility, such as steam, dust, and smoke.
- Uses that produce light emissions, glare or distracting lights that could interfere with pilot vision or be mistaken for airfield lighting.
- Uses that physically obstruct any portion of the MOA due to relative height above ground level.



Source: Beale Air Force Base Joint Land Use Study, February 2008.

Figure COS-5

BEALE AIR FORCE BASE MILITARY INFLUENCE AREAS

As Butte County's population and economic activity grow in the future, public safety within the MOAs shall be coordinated with the military through compatible land use planning. State policy requires collaboration between communities and the military on land use compatibility issues. As such, the military's operational decisions must take into consideration the community's land use and economic development plans and programs. Similarly, as communities grow, they must consider the mission of the military installations that operate nearby.

B. Goals, Policies and Actions

Goal COS-14 **Coordinate with the Beale Air Force Base and the Department of Defense (DoD) on planning issues within the Military Influence and Operating Areas.**

Policies

COS-P14.1 Beale Air Force Base and the Department of Defense (DoD) shall be consulted for review and comment on proposed development projects, General Plan changes, zoning changes, specific plans, and other comprehensive plans within the Military Influence Area for Beale Air force Base and throughout the county for the DoD that have the potential for significant regional impacts.

COS-P14.2 The County shall consider the needs of the Beale Air Force Base for new and expanded infrastructure, as well as on-going maintenance needs for those infrastructure systems, within the Military Influence Area.

COS-P14.3 The County shall utilize the Zoning Ordinance to require review of all proposed development projects within the Military Operations Areas (MOAs) shown in Figure LU-4.

VIII. CULTURAL RESOURCES

A. Background Information

Cultural resources in Butte County include archaeological resources, historic resources and cultural resources related to Native Americans.

1. Archaeological Resources

Prehistoric resources are resources that date back to periods during which there were not written records. Of the over 2,900 archaeological sites recorded in Butte County, over 1,500 sites are either prehistoric archaeological resources or include a prehistoric archaeological component, such as habitation sites, hunting/processing camps, milling stations, rock art sites and burial locations. The overall prehistoric archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along watercourses.

The history of human occupation and use in Butte County is characterized by several related trends taking place throughout the last 10,000 years. Archaeologically visible patterns can be attributed to responses to gradual changes in climate, resource availability and human population growth. The cultural responses to these changes include specialization, intensification, a less mobile lifestyle and the development of a regional economic network.

Honey Run covered bridge near Chico. Photo courtesy of the Butte County Department of Development Services.

Historic resources are from periods during which there were written records. There are over 1,500 archaeological sites that are historic period sites or contain a historical archaeological component, such as old transportation corridors and

alignments, and remnants of activities associated with historic homesteading, ranching, agriculture, mining, and commerce. The overall historic archaeological sensitivity of Butte County area is generally considered moderately high in those areas where historic records indicate transportation routes, agricultural settlements and mining have occurred.

According to the California Office of Historic Preservation, a total of 129 archaeological sites are listed on or have been formally recommended as eligible for listing on the National Register of Historic Places, and therefore by default on the California Register of Historical Resources. Of these, 98 are prehistoric archaeological sites, 25 are historic period archaeological sites, and six are archaeological sites that contain both prehistoric and historic period components.

2. Historic Resources

Historic cultural resources generally include buildings, roads, trails, bridges, canals, and railroads usually associated with the period beginning with the first Euro-American contact. Because settlement of Butte County dates to the 1840s, the County is rich in historic cultural resources. In general, concentrations of historic resources in the county occur adjacent to transportation corridors; on historic ranches; in areas of historic rock, soil, mineral, and timber extraction; and within historic neighborhoods and business districts.

There are several hundred properties with historic resources that are listed in or appear to meet the criteria for listing in the National Register of Historic Places and California Register of Historical Resources. In addition, the State has designated nine California Historical Landmarks and 20 California Points of Historical Interest in Butte County.

The Mills Act, enacted in 1976 by the State of California, provides a preservation incentive to owners of qualified, owner-occupied, historical properties. Qualifying properties include those that are not adequately maintained or in need of rehabilitation. The Mills Act is a State-sponsored program that offers up to a 50 percent reduction in property tax in exchange for the owner's agreement to maintain and preserve the historic property in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

3. Native American Cultural Resources

Butte County includes the territories of four Native American groups: the Maidu, the Nisenan, the Konkow, and the Yana. There are several Native American sacred sites located throughout Butte County. For the purposes of this Element, the term "sacred site" refers to any specific, discrete, narrowly delineated location that is identified by a Native American tribe or Native American individual that is determined to be an appropriately authoritative representative of a Native American religion, as sacred by virtue of its established religious significance to, or ceremonial use by, a Native American religion.

Butte County invited all Native American Tribes listed by the Native American Heritage Commission (NAHC) to consult on Butte County General Plan 2030, as required by SB 18 in Chapter 3 of the California Government Code. The NAHC identified six tribes in Butte County for consultation under SB 18:

- Mechoopda Indian Tribe of Chico Rancheria
- Mooretown Rancheria of Maidu Indians
- Greenville Rancheria of Maidu Indians
- Maidu Nation
- Berry Creek Rancheria of Maidu Indians
- Enterprise Rancheria of Maidu Indians

In addition, the NAHC identified tribal contacts appropriate for consultation regarding the General Plan EIR. The County invited these tribal contacts to consult on General Plan 2030 as well.

The County provided periodic Tribal Update Meetings throughout the planning process. These meetings described the status, progress, and products of the Butte County General Plan 2030 process to tribes listed for consultation.

To inform development of Butte County General Plan 2040, on August 31, 2021, County staff notified 12 individuals representing 9 Tribal entities in the region of an opportunity to consult under Senate Bill (SB) 18 regarding the Butte County General Plan Update. The County received responses with interest in meeting from one Tribe, Mooretown Rancheria of Maidu Indians (Mooretown Rancheria). Input provided by Mooretown Rancheria representatives in a meeting with County staff resulted in the introduction of new policies, COS-P17.1 and COS-P17.3. Consultation with Moortown Rancheria is ongoing and the County will continue to

work with consulting tribes as part of project-level tribal consultation during the draft elements review period. Separately, under CEQA, the County will be consulting with culturally affiliated tribes under Assembly Bill (AB) 52. Consultation under AB 52 and SB 18 will be concluded prior to the adoption of the General Plan and certification of its Environmental Impact Report.

B. Goals, Policies and Actions

Goal COS-15 Preserve important cultural resources.

Policies

COS-P15.1 Historic and cultural resources management shall be coordinated with nearby jurisdictions, including the five incorporated municipalities, the Lassen and Plumas National Forests, other planning and regulatory agencies, and local tribes.

COS-P15.2 As part of CEQA and NEPA projects, evaluations of surface and subsurface cultural resources in the county shall be conducted. Such evaluations should involve consultation with the Northeast Information Center.

COS-P15.3 The Northeast Information Center and appropriate historic and preservation professionals shall be consulted when considering re-use of historic sites.

Actions

COS-A15.1 Seek funding to conduct a study to define types and categories of historic and cultural resources in the county, including sources of information necessary for cultural resource evaluation and the development of appropriate mitigation measures.

COS-A15.2 Seek funding to compile an inventory of known cultural resources, including historic and prehistoric resources and important, local agricultural and historic landscapes. Examples of such landscapes include rock walls, barns, silos, agricultural land use patterns, grange halls and historic farmhouses, as well as linear features such as historic roads, emigrant and Native American trails,

flumes, ditches, and historic highways. Other examples include citrus colony land use patterns like those in Palermo and Durham, established by colonists developing land for citrus agriculture.

COS-A15.3 Once the cultural resources inventory is created, develop a mechanism for updating it that recognizes the potential for on-going improvement in information about these resources.

COS-A15.4 Compile an inventory of viewsheds appropriate for recognition as historic resources.

COS-A15.5 Develop a program to educate the public and the development community about important cultural and historic resources.

COS-A15.6 Develop and adopt incentives to support the preservation of historic and cultural resources, including Mills Act incentives, incentives to encourage adherence to the Secretary of the Interior's Standards for Rehabilitation, and incentives to expand the types of properties that can be listed on the register.

Goal COS-16 Ensure that new development does not adversely impact cultural resources.

Policies

COS-P16.1 Areas found during construction to contain significant historic or prehistoric archaeological artifacts shall be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation. Historic or prehistoric artifacts found during construction shall be examined by a qualified consulting archaeologist or historian to determine their significance and develop appropriate protection and preservation measures.*

COS-P16.2 Any archaeological or paleontological resources on a development project site shall be either preserved in their sites or adequately documented as a condition of removal. When a development project has sufficient flexibility, avoidance and preservation of the resource shall be the primary mitigation measure.*

COS-P16.3 Demolition permit applications on potentially important historic sites shall be subject to discretionary review.

Actions

COS-A16.1 In consultation with the Northeast Information Center, create guidelines for evaluating development project impacts to surface and subsurface cultural resources, including specific mitigations for impacts that are identified.

Goal COS-17 Respect Native American culture and planning concerns.

Policies

COS-P17.1 The County shall maintain collaborative relationships with local Native American tribal representatives to facilitate consultation in the review of future projects that have the potential to impact tribal cultural resources.

COS-P17.2 County staff shall participate in a dialog with local Native American tribes to collaborate on tribal land use plans.

COS-P17.3 The County shall consult with local Native American tribes on wildfire hazard mitigation, including hazard tree removal, and wildfire recovery, including road impacts and resource management in burn scar areas.

COS-P17.4 Impacts to the traditional Native American landscape shall be considered during California Environmental Quality Act or National Environmental Protection Act review of development proposals.

COS-P17.5 Human remains discovered during implementation of public and private development projects shall be treated with dignity and

respect. Such treatment shall fully comply with the federal Native American Graves Protection and Repatriation Act and other appropriate laws.

COS-P17.6 If human remains are located during any ground disturbing activity, work shall stop until the County Coroner has been contacted, and, if the human remains are determined to be of Native American origin, the NAHC and most likely descendant have been consulted.*

COS-P17.7 Consistent with State local and tribal intergovernmental consultation requirements such as SB18 and AB52, the County shall consult with Native American tribes that may be interested in proposed new development projects and land use policy changes.

Actions

COS-A17.1 Establish Memoranda of Agreement regarding development consultation procedures with local Native American tribes. These Memoranda may include the following:

a. Addition of a General Plan policy that establishes a process for consultation regarding proposed development projects with local Indian tribes at the earliest possible time.

b. Development of a formal consultation protocol that provides adequate review time for tribes to review and respond to consultation requests, and that includes a definition of terms, notification procedures, review periods and procedures regarding sharing of confidential information.

c. Development and adoption of a cultural resources management plan for the County, including policies and procedures for the curation and disposition of objects, and protection, preservation, and long-term monitoring of traditional cultural properties.

d. Guidelines for engagement with local tribes to create a confidential cultural resources inventory to be conducted as part of a countywide assessment of cultural resources. Use

ethnographies as one source of information for non-archaeological Native American sites.

e. Development of a reliable and trustworthy system and relationship between local tribes and the County to protect confidential tribal information.

f. Coordination with local tribes to adopt standards for County and private retention of professional archaeologists and cultural resource specialists to monitor construction on sensitive sites. Standards for professional archaeologists should meet or exceed US Department of Interior standards.

g. Guidelines for engagement with local Indian tribes to create a confidential cultural resources inventory of the county and development of a reliable and trustworthy system and relationship between local tribes and the County to protect confidential tribal information.

h. Re-evaluation of sites of past archaeological investigations that may be impacted by proposed development projects to assess cultural sensitivity, using state-of-the-art methods.

i. Recognition of the importance to Native Americans of natural resources, including oak woodlands, deer herds, water bodies and riparian corridors, as well as aquatic, riparian and upland plant and animal species. Recognition of the importance to local Native American tribes of gathering and use sites, as well as other traditional tribal cultural places. Consideration of the use of these resources and sites by contemporary Native Americans in planning for land use, development, and management. Consultation and other coordination with local Native American tribes to preserve these habitats, resources, sites, and species.

j. Establishment of protection measures to acknowledge and protect traditional tribal cultural knowledge and intellectual property rights.

COS-A17.2 Consult California State University Chico tribal relations staff for input on tribal outreach strategies.

COS-A17.3 Compile an inventory of specific viewsheds of cultural importance to Native Americans.

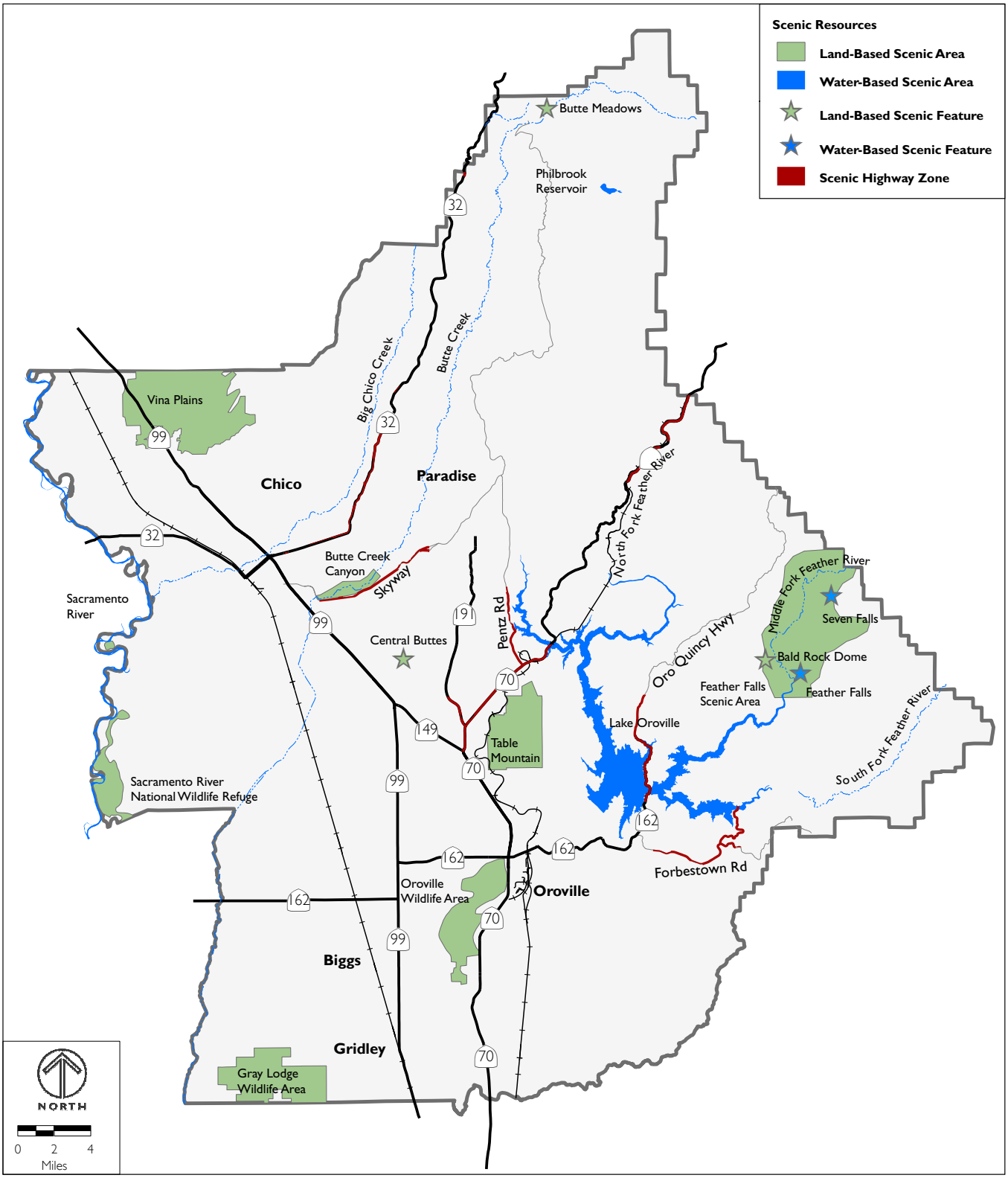
COS-A17.4 Consult with local tribes on species to be included in a list of native tree and plant species for use in required landscaping for new development projects.

IX. SCENIC RESOURCES

A. Background Information

Butte County encompasses an outstanding variety of natural vistas, landscapes, water resources and Scenic Byways. Significant scenic resources are displayed in Figure COS-6 and described below. Although this list of resources and the map do not provide any regulatory influence, they are provided to describe the scenic resources that have been mapped in Butte County. This list and map do not constitute a full list of scenic resources in Butte County, and the policies and actions in Section B pertain to all scenic resources, not just those that are listed and mapped.

- **Table Mountain Spring Floral Area.** The lava flow that now tops Table Mountain brings an explosion of color each year in the form of native wildflowers. Over 3,300 acres of North Table Mountain is protected as an ecological reserve by the State Department of Fish and Game.
- **Central Buttes**. Rising from the valley floor, these geologic features are remnants of the surrounding landform that eroded around them over the millennia. Many of these buttes are visible from State Routes 99, 149, and 70.
- **Sacramento River and its Riparian Corridor.** Some of the county's richest habitat and most beautiful views are found along the Sacramento River and its associated riparian corridor. State and federal agencies have acquired significant portions of the riparian corridor to help protect this resource.
- **Butte Creek Canyon.** The Skyway provides views to a dramatic and panoramic display of the topographic and geologic features of Butte Creek Canyon. A portion of this canyon is protected as an ecological reserve by the State Department of Fish and Game.



Sources: Butte County Geographic Information Systems; US Forest Service.

Figure COS-6
SCENIC RESOURCES

Spring wildflowers on Table Mountain. Photo courtesy of Lynne Pillus, Butte County Department of Water & Resource Conservation.

- **Lake Oroville.** Lake Oroville provides many scenic vistas from several highways that traverse its shores, while providing an assortment of recreational activities for residents and visitors.
- **Philbrook Lake.** Pacific Gas and Electric Company owns the Philbrook Reservoir, a tranquil mountain lake nestled between several scenic mountain outcroppings.
- **Feather Falls Scenic Area Features.** The Feather Falls Scenic Area, part of the Plumas National Forest, includes granite domes, such as Bald Rock and waterfalls, such as Feather Falls and Seven Falls.
- **Seasonal Scenic Resources.** Many tourists visit the orchards in the valley areas of Butte County during the early spring when almonds and other trees are blossoming.

Scenic Byways are defined as those main public roadways that pass through an area of picturesque natural landscapes. Scenic Byways are officially designated by the State or are identified as a County Scenic Byway in this General Plan.

Although there are no officially-designated State Scenic Highways in Butte County, State Route 70 north of the intersection with State Route 149 is included in the California Scenic Highway Program and is considered an eligible State Scenic Highway. State Route 70 through the Feather River Canyon and a portion of State Route 32 north of Forest Ranch are recognized as County Scenic Highways, as shown in Figure COS-7.

As shown in Figure COS-8, a Scenic Highway Overlay Zone in the Zoning Ordinance is applied to an area extended 350 linear feet from the centerline of scenic routes, including:

- Portions of State Route 32 north of Chico.
- Portions of State Route 70 north of the State Route 149 intersection.
- The Skyway with its expansive views of the Northern Sacramento Valley and Coast Range.
- The southern portions of State Route 191 and Pentz Road.
- The portion of State Route 162 along Lake Oroville.
- Portions of Forbestown Road and Lumpkin Road.

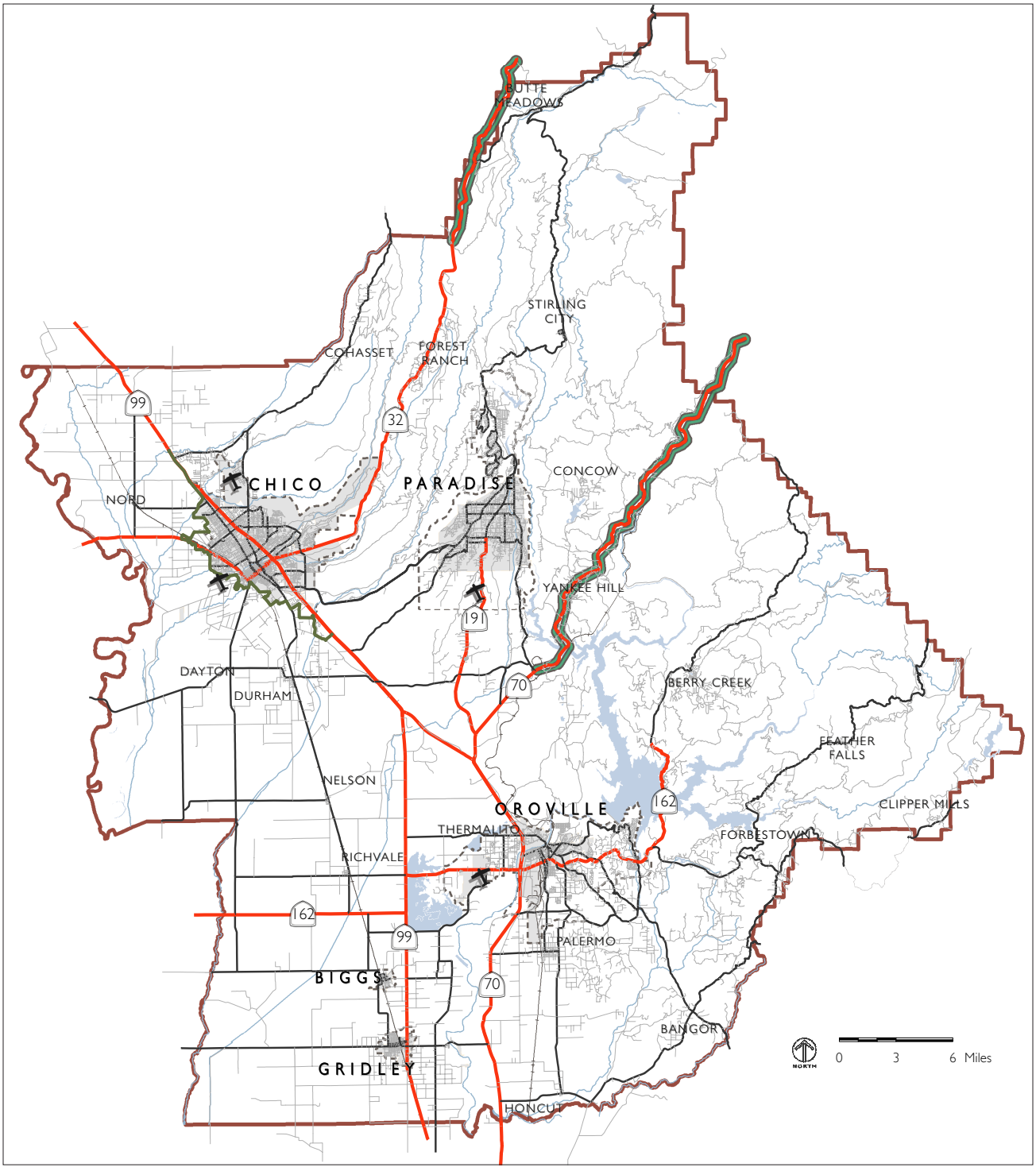
B. Goals, Policies and Actions

Goal COS-18 **Maintain and enhance the quality of Butte County's scenic and visual resources.**

Policies

COS-P18.1 Views of Butte County's scenic resources, including water features, unique geologic features, and wildlife habitat areas, shall be maintained.*

COS-P18.2 Ridgeline development near scenic resources shall be limited via the adoption of specific development guidelines to minimize visual impacts.*

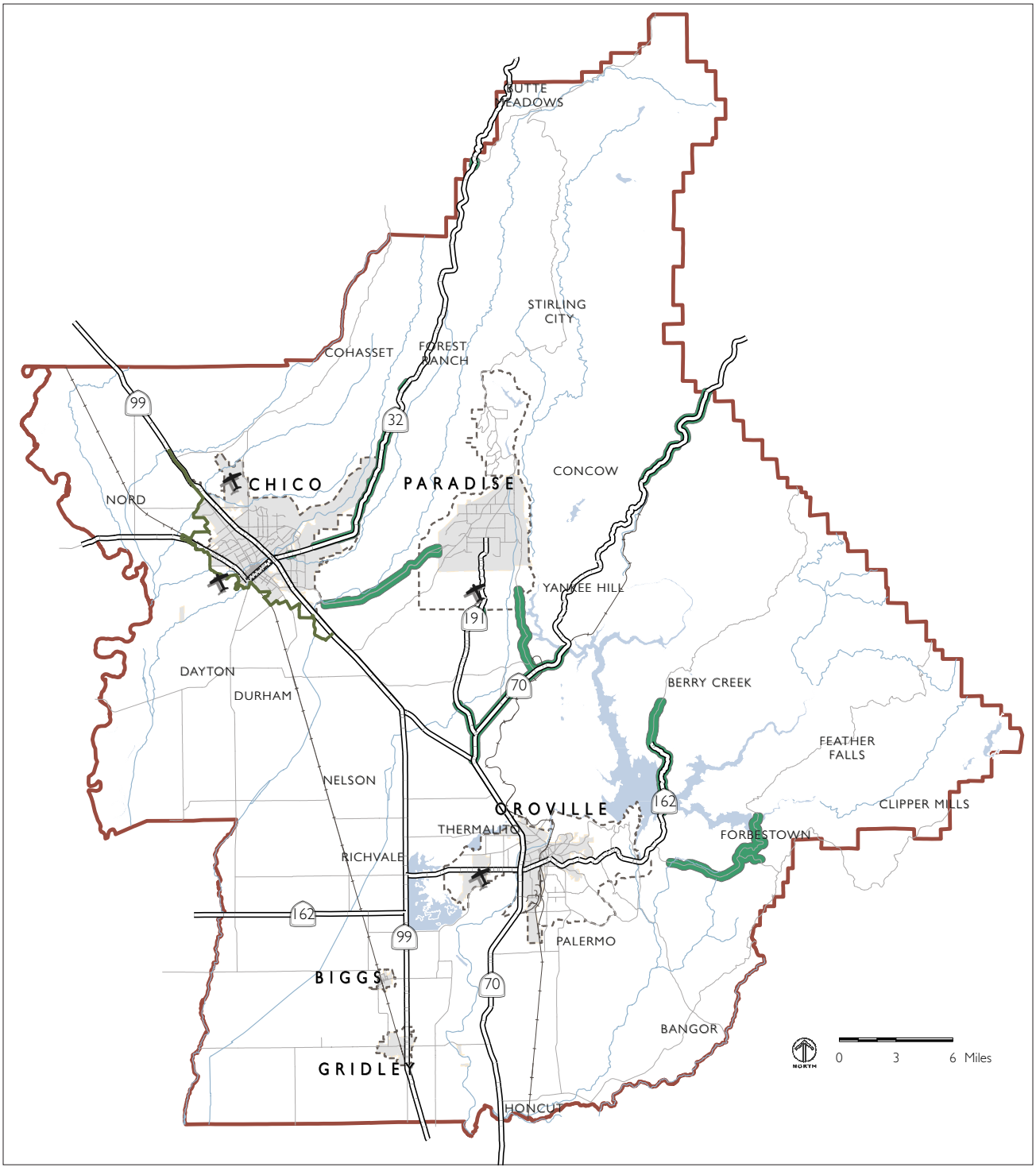


Source: Butte County GIS, 2009.

- County Scenic Highway
- State Highway
- Major Roadway
- Minor Roadway
- Railroad
- Airports
- Greenline
- Sphere of Influence
- City/Town Limits
- County Boundary

Figure COS-7

COUNTY SCENIC HIGHWAYS



Source: Butte County GIS, 2009.

- Scenic Highway Zone
- Highways
- Major Roads
- Railroad
- Airports
- Greenline
- Sphere of Influence
- City/Town Limits
- County Boundary

Figure COS-8

SCENIC HIGHWAY OVERLAY ZONES

Actions

COS-A18.1 Adopt development guidelines that mitigate the impacts of ridgeline development near scenic resources.

Goal COS-19 Protect and enhance scenic areas adjacent to and visible from highways for enjoyment by residents and visitors.

Policies

COS-P19.1 The County shall designate scenic corridors based on careful consideration of the following factors:

a. Relationship to the scenic highway system, including proximity to urban population centers, gateways, integration with other highways and scenic highways and access to major recreation areas.

b. Safety characteristics, including road surface and alignment, shoulder width, traffic levels, number of intersections, access points, turnouts, and rest areas.

c. Scenic characteristics, including vista points, geologic resources, native plant and animal species, waterways, historic resources and agricultural, timber and recreation uses.

d. Government policies, including public lands, eligibility for State scenic highway designation, and consistency with other Butte County General Plan 2030 elements.

e. Economic impacts on properties affected by a scenic highway designation.

COS-P19.2 To enhance safety on scenic highways, the County shall limit access, using existing access where feasible, and limit encroachment permits.

COS-P19.3 The County shall require utility companies to choose the least conspicuous locations for distribution lines, to avoid impacts to scenic corridors where there is reasonable choice.

Actions

COS-A19.1 Review the scenic highways program, considering the potential designation of new scenic highways, removal of existing scenic highway designations, and modifications to the scenic highway standards.