

## 3.4 BIOLOGICAL RESOURCES

This section addresses biological resources known or with potential to occur in Tuolumne County. The analysis includes a description of the existing biological resource conditions and provides a brief overview of applicable federal and state plans, policies, and laws and local plans, policies, and regulations pertaining to the protection of biological resources in Tuolumne County. The analysis identifies the potential impacts of projected development under the General Plan Update on biological resources and identifies mitigation measures, when available, to reduce the level of impact to less than significant.

The primary issues raised in comments received on the Draft EIR that pertain to terrestrial biological resources included conversion of oak woodland and other habitats, impacts to sensitive species, and open space conservation.

### 3.4.1 Environmental Setting

#### HABITATS

Tuolumne County contains a wide diversity of tree (hardwood and coniferous forests, oak woodlands), shrub (chaparrals), and herbaceous (grasslands) habitat types. Thirty-four habitat types were mapped using the Northern Sierra Nevada Foothills Vegetation Project data (Aerial Information Systems 2011) and the California Wildlife Habitat Relationships (CWHR) habitat classification system within Tuolumne County (CDFW 2008). For purposes of displaying the broad distribution of habitats across the County, these 34 habitat types were aggregated into nine general habitat categories shown in Exhibit 3.4-1. A description of each of the 34 habitats adapted from *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988) is presented below. The vegetation classifications from *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009) that most closely resemble those classified by the CWHR are also presented in each description. It should be noted that these habitats are generalized and that site-specific variation is potentially present. Also, the CWHR classification system maps habitats from a broad perspective and in many areas, it is expected that two or more habitats may blend with one another. Habitats that occur within populated areas can also show variation because of a greater exposure to anthropogenic influences such as the introduction of exotic plant species.

#### Tree-Dominated Habitats

Tuolumne County includes a variety of hardwood, coniferous, and mixed woodlands and forests (Exhibit 3.4-1). These tree-dominated habitats can support diverse wildlife populations. Riparian habitats, which are often tree-dominated, are generally the terrestrial areas adjacent to fresh water bodies forming a vegetated corridor from stream edge to floodplain edge. Riparian habitats occur along the rivers, creeks, streams, and ravines in the County. Riparian areas are rich in wildlife species, providing foraging, migration, roosting, and nesting/breeding habitat. The following are those types of tree-dominated habitats that occur within Tuolumne County. Descriptions of these habitat types are provided in Appendix B.

- ▲ Aspen Forest
- ▲ Blue Oak-Foothill Pine Woodland
- ▲ Blue Oak Woodland
- ▲ Closed-Cone Pine-Cypress Forest
- ▲ Douglas Fir Forest
- ▲ Eastside Pine Forest
- ▲ Jeffrey Pine Forest
- ▲ Juniper Woodland
- ▲ Lodgepole Pine Forest
- ▲ Montane Hardwood Forest
- ▲ Montane Riparian Forest
- ▲ Valley Oak Woodland
- ▲ Montane Hardwood-Coniferous Forest
- ▲ Pinyon-Juniper Woodland
- ▲ Ponderosa Pine Forest
- ▲ Red Fir Forest
- ▲ Sierran Mixed Conifer Forest
- ▲ Subalpine Conifer Forest
- ▲ White Fir Forest

## Shrub-Dominated Habitats

Shrub-dominated habitats, such as various chaparral communities, are composed primarily of woody, evergreen shrubs and occur predominantly in the western portion of Tuolumne County. The following types of shrub-dominated habitats occur within Tuolumne County. Descriptions of these habitat types are provided in Appendix B.

- ▲ Alpine Dwarf-Shrub
- ▲ Chamise-Redshank Chaparral
- ▲ Low Sage Shrubland
- ▲ Mixed Chaparral
- ▲ Montane Chaparral
- ▲ Sagebrush Shrubland

## Herbaceous-Dominated Habitats

Herbaceous-dominated habitats are generally composed of areas dominated by grasses and other non-woody species. The majority of this habitat in Tuolumne County is characterized by non-native grasslands located in the lowlands of the western portion of the County. The following types of herbaceous-dominated habitats occur within Tuolumne County. Descriptions of these habitat types are provided in Appendix B.

- ▲ Annual Grasslands
- ▲ Perennial Grassland
- ▲ Wet Meadow

## Developed and Sparsely/Non-Vegetated Habitats

Developed habitats are usually sparsely or non-vegetated and are associated with urban and agricultural areas and are highly disturbed. Species that occur in these areas are typically adapted to anthropogenic disturbance and/or comprised of ornamental species. Sparsely vegetated habitats also tend to be associated with rock outcrops and cliffs. The following are types of developed and sparsely/non-vegetated habitats that occur within Tuolumne County. Descriptions of these habitat types can be found in Appendix B.

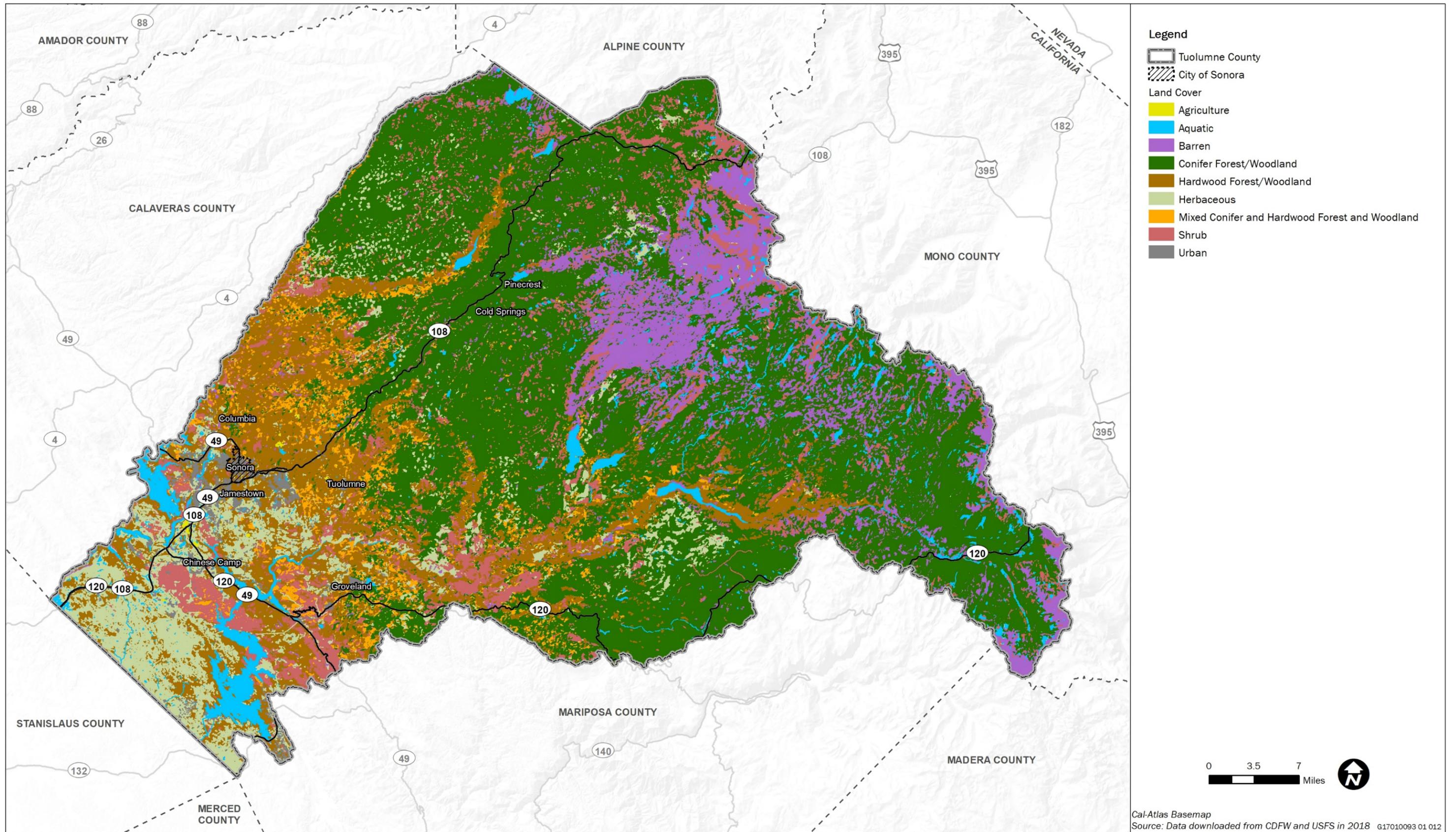
- ▲ Cropland
- ▲ Deciduous Orchard
- ▲ Urban
- ▲ Barren

## DRAINAGES AND WETLANDS

### Drainages

The County contains two principal rivers and their watersheds: Stanislaus River and Tuolumne River. Several creeks and tributaries are associated with each one of these watersheds (Exhibits 3.4-2a, 3.4-2b and 3.4-2c). The drainages within these watersheds provide valuable foraging habitat, breeding habitat, and movement habitat for a wide variety of animal species, including sensitive species such as Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*) and California red-legged frog (*Rana draytonii*). Information regarding each watershed is provided below.

**Stanislaus River:** This river is an approximately 65-mile-long waterway that flows from the Sierra Nevada to the San Joaquin River in the eastern part of the Central Valley and is one of the largest tributaries of the San Joaquin River. The Stanislaus River Watershed covers an area of approximately 904 square miles. The river originates as North, Middle, and South Forks in the Stanislaus National Forest in the Sierra Nevada. The confluence of these forks northeast of New Melones Lake forms the Stanislaus River. The North Fork forms the northwestern boundary of the County.



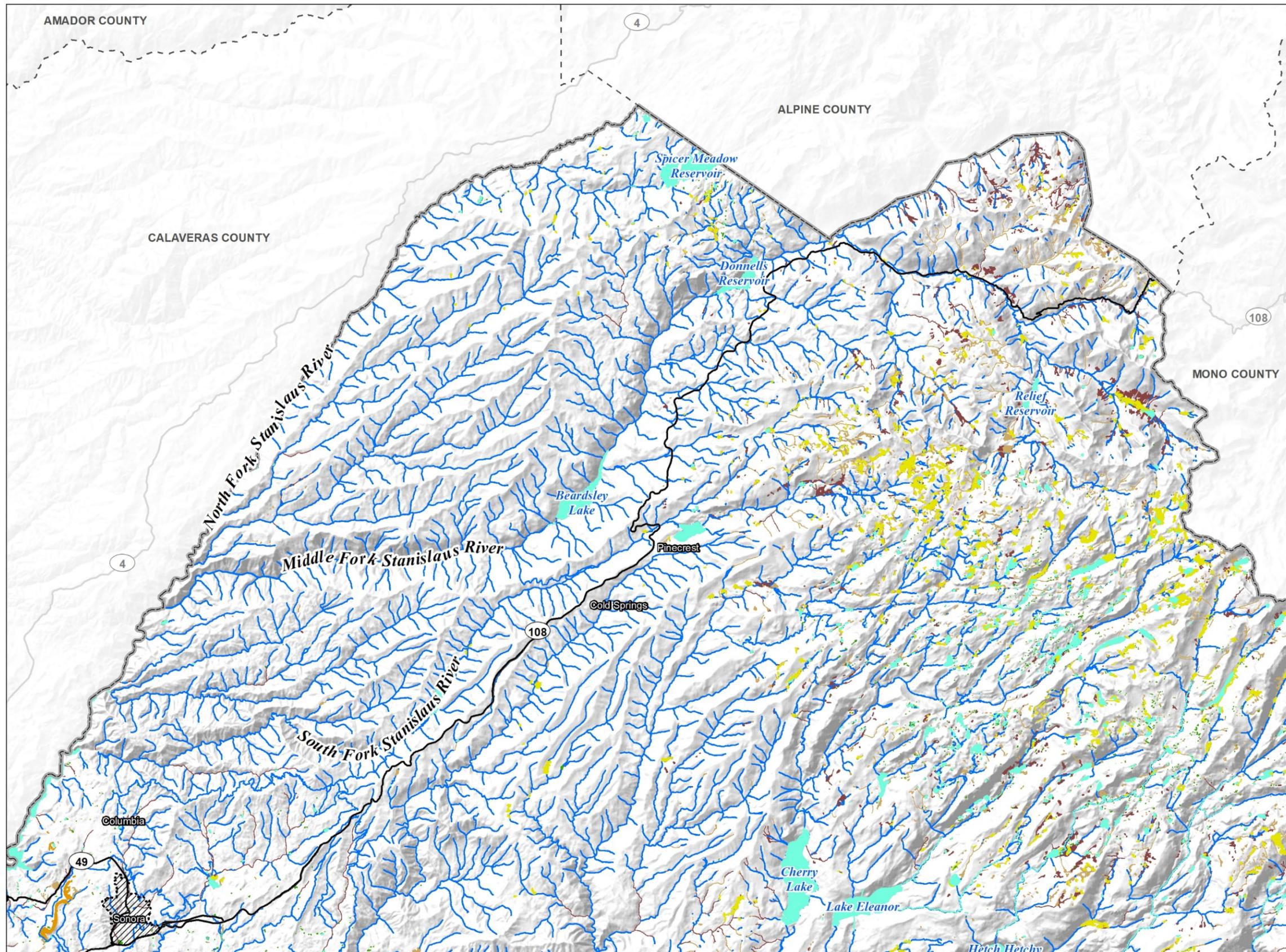
- Legend**
- Tuolumne County
  - City of Sonora
  - Land Cover**
  - Agriculture
  - Aquatic
  - Barren
  - Conifer Forest/Woodland
  - Hardwood Forest/Woodland
  - Herbaceous
  - Mixed Conifer and Hardwood Forest and Woodland
  - Shrub
  - Urban



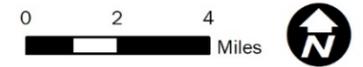
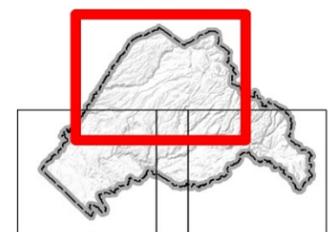
Cal-Atlas Basemap  
 Source: Data downloaded from CDFW and USFS in 2018 G17010093 01 012

**Exhibit 3.4-1**





- Legend**
- Tuolumne County
  - City of Sonora
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond
  - Lacustrine
  - Riverine
  - Riverine/Lacustrine
  - Vernal Pool Grassland
  - Wet Meadow



Source: Data downloaded from CDFW in 2018, USFS in 2017, and USFWS in 2017

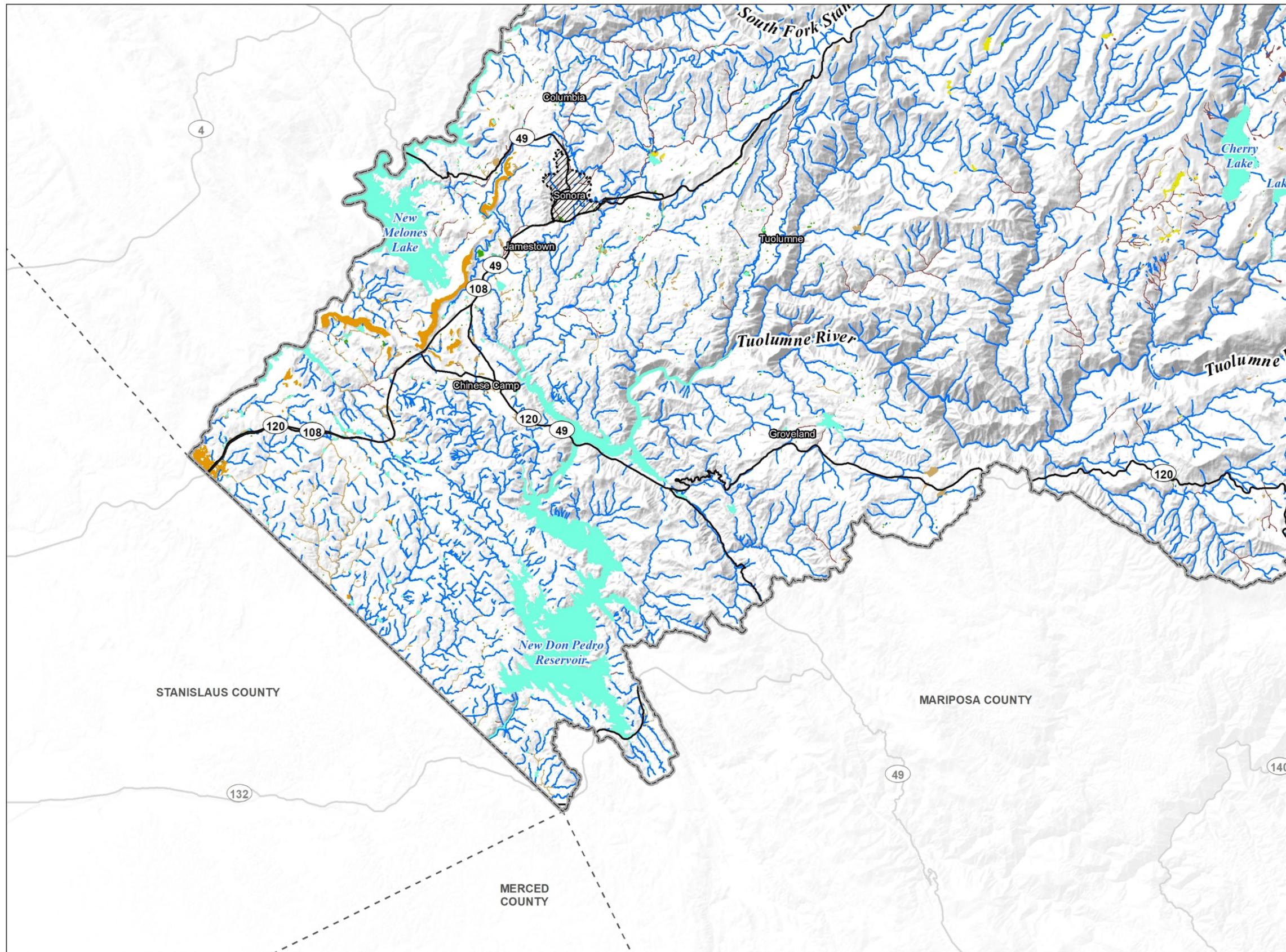
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Exhibit 3.4-2a

National Wetlands Inventory





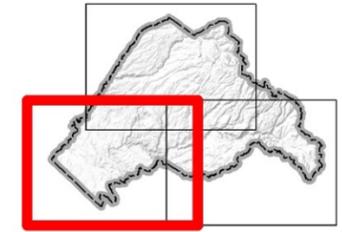


- Legend**
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STANISLAUS COUNTY

MARIPOSA COUNTY

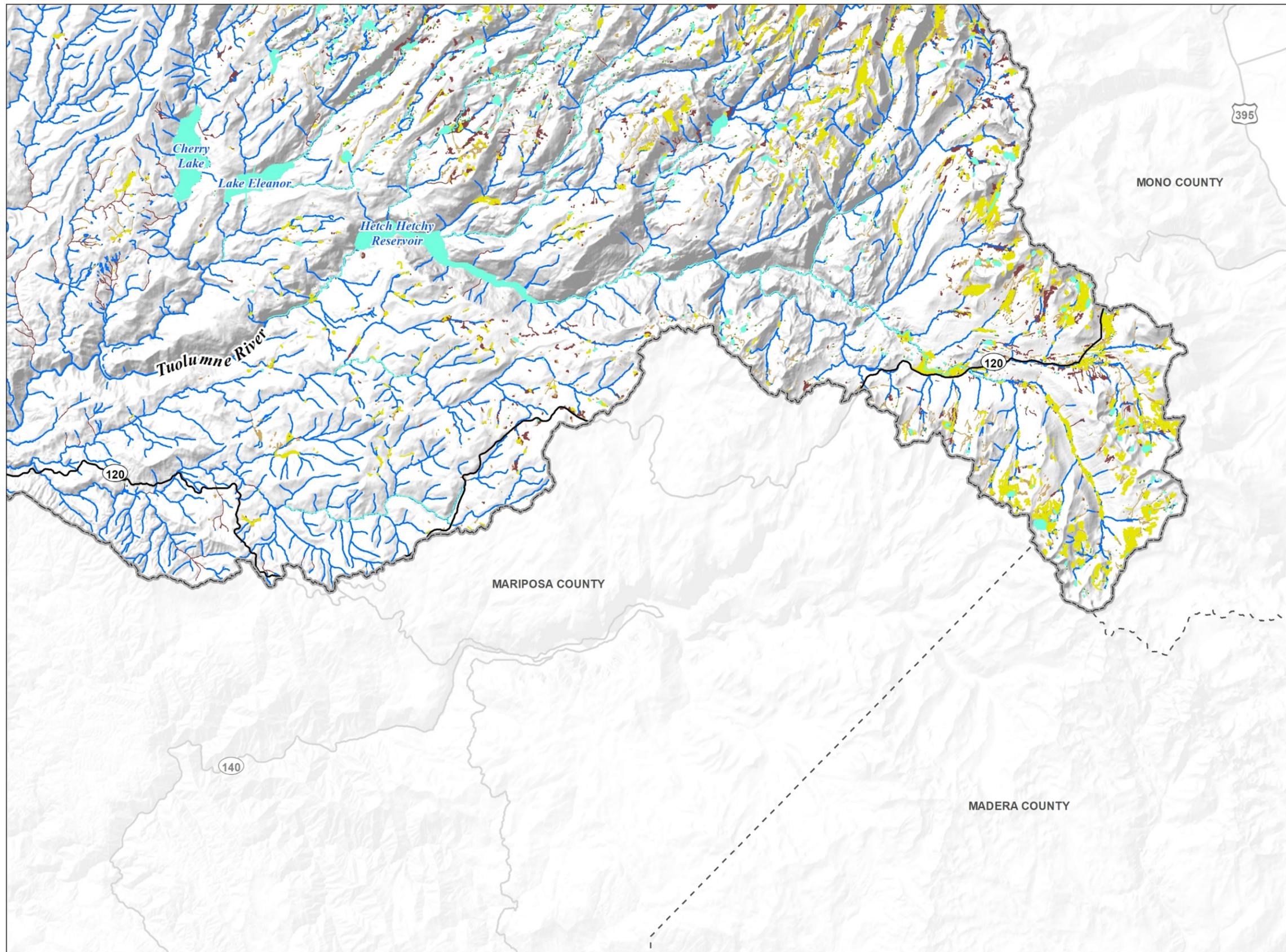
MERCED COUNTY



Source: Data downloaded from CDFW in 2018, USFS in 2017, and USFWS in 2017 G17010093 01 008b

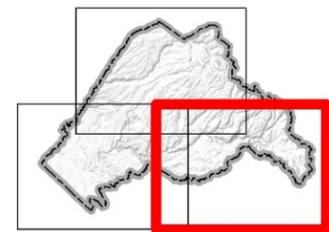






**Legend**

-  Tuolumne County
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lacustrine
-  Riverine
-  Riverine/Lacustrine
-  Vernal Pool Grassland
-  Wet Meadow



Source: Data downloaded from CDFW in 2018, USFS in 2017, and USFWS in 2017

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**Tuolumne River:** The headwaters of this river originate in the High Sierra at the eastern edge of Tuolumne Meadows in Yosemite National Park. The watershed area covers approximately 1,533 square miles. The Tuolumne River flows through Yosemite National Park and into Hetch Hetchy Valley, which was flooded behind the O'Shaughnessy Dam in 1923, and then into the Stanislaus National Forest. At the O'Shaughnessy Dam, approximately 33 percent of the river's flow is diverted to the San Francisco Bay Area, where it provides drinking water for nearly 2.5 million people.

## **Wetlands**

Wetlands are important biological resources both because of their rarity and because they serve a variety of functional values. Several types of wetlands exist in the County, including freshwater marshes, vernal pools, and riparian habitats.

### **Vernal Pools**

These seasonal wetlands are small depressions that fill with water during the winter, gradually drying during the spring and becoming completely dry in the summer. These pools are found in only a few places in the world outside of California. Vernal pool vegetation is characterized by herbaceous plants that begin their growth as aquatic or semi-aquatic plants and transition to a dry land environment as the pool dries. Most vernal pool plants are annual herbs.

In addition to vernal pools, several areas within the County are mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (USFWS 2015a). A general description of each of the classifications is provided below. Of those wetland types mapped by the NWI, freshwater emergent wetland, riverine and lacustrine habitats are also mapped by the CWHR.

### **Freshwater Emergent Wetlands**

Freshwater emergent wetlands include all non-tidal waters dominated by emergent herbaceous plant species, mosses, and/or lichens. Wetlands of this type are also low in salinity. Wetlands which lack vegetation can be included in this class if they are less than 20 acres, do not have an active wave-formed or bedrock shoreline feature, and have a low water depth less than 6.6 feet. This wetland type is also mapped by the CWHR. Freshwater emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots. All emergent wetlands are flooded frequently, enough so that the roots of the vegetation prosper in an anaerobic environment. The vegetation may vary in size from small clumps to vast areas covering several kilometers.

### **Freshwater Forested/Shrub Wetlands**

These wetlands include non-tidal waters which are dominated by trees and shrubs, with emergent herbaceous plants, mosses and/or lichens. Wetlands which lack vegetation can be included in this class if they also exhibit the same criteria as described for freshwater emergent wetlands. The vegetation found in freshwater forested/shrub wetlands are generally dominated by woody vegetation such as shrubs and trees.

### **Freshwater Ponds**

Freshwater ponds include non-tidal waters with vegetative cover along its edges such as trees, shrubs, emergent herbaceous plants, mosses, and/or lichens. Freshwater ponds can be man-made or natural and typically consist of an area of standing water with variable amounts of shoreline. These wetlands and deep-water habitats are dominated by plants that grow on or below the surface of the water. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which includes vernal pools.

### **Lakes**

Lakes are a lacustrine system that includes wetlands and deep-water habitats that are located in a topographic depression or dammed river channel. These areas tend to be greater than 20 acres. Vegetation cover within this habitat is generally less than 30 percent and often occurs in the form of emergent or surface vegetation. Substrates are composed of at least 25 percent cover of particles smaller than stones. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which also includes vernal pools.

### Riverine

Riverine habitats are a riverine system that includes all wetlands and deep-water habitats contained in natural or artificial channels that contain periodically or continuously flowing water. This system may also form a connecting link between two bodies of standing water. Substrates generally consist of rock, cobble, gravel or sand.

### Wet Meadow

Wet meadows often occur as ecotones between fresh emergent wetland and perennial grassland or mesic meadow types. Where wet meadows merge with fresh emergent wetlands, slight differences in water depth control the species present. Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; however, they may be an important feature of the meadow edge.

## **SPECIAL-STATUS SPECIES AND SENSITIVE COMMUNITIES**

Special-status species are plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. In this Recirculated Draft EIR, special-status species are defined as:

- ▲ species listed or proposed for listing as threatened, rare, or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA);
- ▲ species considered as candidates for listing under the ESA or CESA;
- ▲ wildlife species designated by the California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- ▲ animals fully protected under the California Fish and Game Code; and
- ▲ plants considered by CDFW to be “rare, threatened, or endangered in California” (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California and not known to occur elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California, but more common elsewhere and 2B, considered rare or endangered in California but more common elsewhere).

Special-status CRPR List 3 and List 4 plant species are typically not considered for analysis under the California Environmental Quality Act (CEQA) except where they are designated as rare or otherwise protected by local government. Therefore, these plant species are not included in subsequent impact analysis. CRPR List 1B and 2 species are typically regarded as rare, threatened, or endangered under CEQA by lead agencies and were considered in impact analysis.

Queries of the USFWS Information for Planning and Consultation (IPaC) system (USFWS 2015b), USFWS Critical Habitat Portal (USFWS 2015c), California Natural Diversity Database (CNDDDB) (CDFW 2015), and California Native Plant Society (CNPS) *Online Inventory of Rare, Threatened and Endangered Plants of California* (CNPS 2015) were conducted. The queries were conducted to obtain comprehensive information regarding state and federally listed species, sensitive communities and federally designated Critical Habitat known or with potential to occur within Tuolumne County. The CNDDDB and CNPS Inventory data are species occurrence records reported voluntarily and do not represent a comprehensive inventory of special-status species in an area. Additionally, these sources include historical occurrences for species that may no longer be extant at a given location. Accordingly, the CNDDDB and CNPS are useful tools for determining species occurrences that have been voluntarily reported but are not intended to confirm presence or absence of a species in an area.

## Sensitive Natural Communities and Habitats

Sensitive habitats are defined as habitats with particularly high ecological values or functions, of limited distribution, or otherwise of concern to federal, state, and/or local resource agencies. Sensitive habitats are often designated because they are declining regionally or statewide. Sensitive habitats are of special concern because they have high potential to support special-status plant and animal species and can provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality. Sensitive habitats include Natural Communities of Special Concern that are identified by CDFW (e.g., having a high priority for inventory by the CNDDDB or those afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, California's Porter-Cologne Act, or Section 404 of the Clean Water Act (CWA)).

Sensitive habitats in Tuolumne County consist of the wetland and aquatic types described previously (vernal pools, freshwater emergent wetland, freshwater forested/shrub wetland, freshwater pond, lakes, riverine, and wet meadow). These habitats would be subject to regulation by the U.S. Army Corps of Engineers (USACE) and the Central Valley Regional Water Quality Control Board (RWQCB) under Sections 404 and 401 of the CWA or under the Porter-Cologne Act, and/or by CDFW under California Fish and Game Code. Other sensitive habitats in the County include valley oak woodland, valley foothill riparian, montane riparian forest, aspen forest, and California buckeye groves.

## Special-Status Plants and Animals

Tuolumne County is home to several species protected by federal and state agencies. Important animal species can be found in a variety of habitats in the County. The CNDDDB (CDFW 2015), CNPS (2015), and USFWS IPaC (USFWS 2015b) together list 177 special-status animal (42 species) species and plant (135 species) known or with potential to occur within Tuolumne County. The status and habitat requirements for each of these species are presented in Tables 1 and 2 respectively in Appendix B.

### Critical Habitat

USFWS has designated critical habitat in Tuolumne County for eight threatened and endangered plant and animal species: Sierra Nevada yellow-legged frog (*Rana sierrae*), Yosemite toad (*Anaxyrus canorus*), Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), Steelhead – Central Valley Distinct Population Segment (*Oncorhynchus mykiss irideus*), Colusa grass (*Neostapfia colusana*), Fleshy owl's-clover (*Castilleja campestris* ssp. *succulenta*), Hoover's spurge (*Chamaesyce hooveri*), Greene's Tuctoria (*Tuctoria greenei*). Exhibit 3.4-3 shows the distribution of federally designated critical habitat in Tuolumne County.

## WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as movement routes for dispersing animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Corridors usually connect one large habitat area with another, and while there is no pre-defined size limit for such areas, they most often are on the scale of mountain ranges, valleys, rivers and creeks, or clearly

delimited ecological situations (e.g., vernal pools). The *Missing Linkages: Restoring Connectivity to California Landscape* (Penrod et al. 2001) conference refers to such corridors as “landscape linkages.” These are specifically defined in that report as:

“large, regional connections between habitat blocks (“core areas”) meant to facilitate animal movement and other essential flows between different sections of a landscape (taken from Soulé and Terborgh 1999). These linkages are not necessarily constricted, but are essential to maintain connectivity function in the ecoregion.”

Wildlife movement corridors can be both large and small scale. Tuolumne County contains one landscape linkage identified by the above reference. Regionally, Tuolumne County is located within two Essential Connectivity Areas (ECAs) as mapped in the report, California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (Spencer et al. 2010). One is located in the northern portion of the County and the other in the lower elevation portion of the western County (see Exhibit 3.4-4). ECAs represent principal connections between Natural Landscape Blocks, which are large remaining areas of intact habitat. ECAs are regions in which land conservation and management actions should be prioritized to maintain and enhance ecological connectivity. ECAs are mapped based on coarse ecological condition indicators, rather than the needs of particular species and thus serve the majority of species in each region. Small scale habitat corridors, though, can also be present on sites and include drainages and other topographic features that facilitate movement such as those in the mountainous regions of the County. The drainages found within the range, as mapped in Exhibits 3.4-2a and 3.4-2b, may provide opportunities for small scale regional connections for a number of wildlife species.

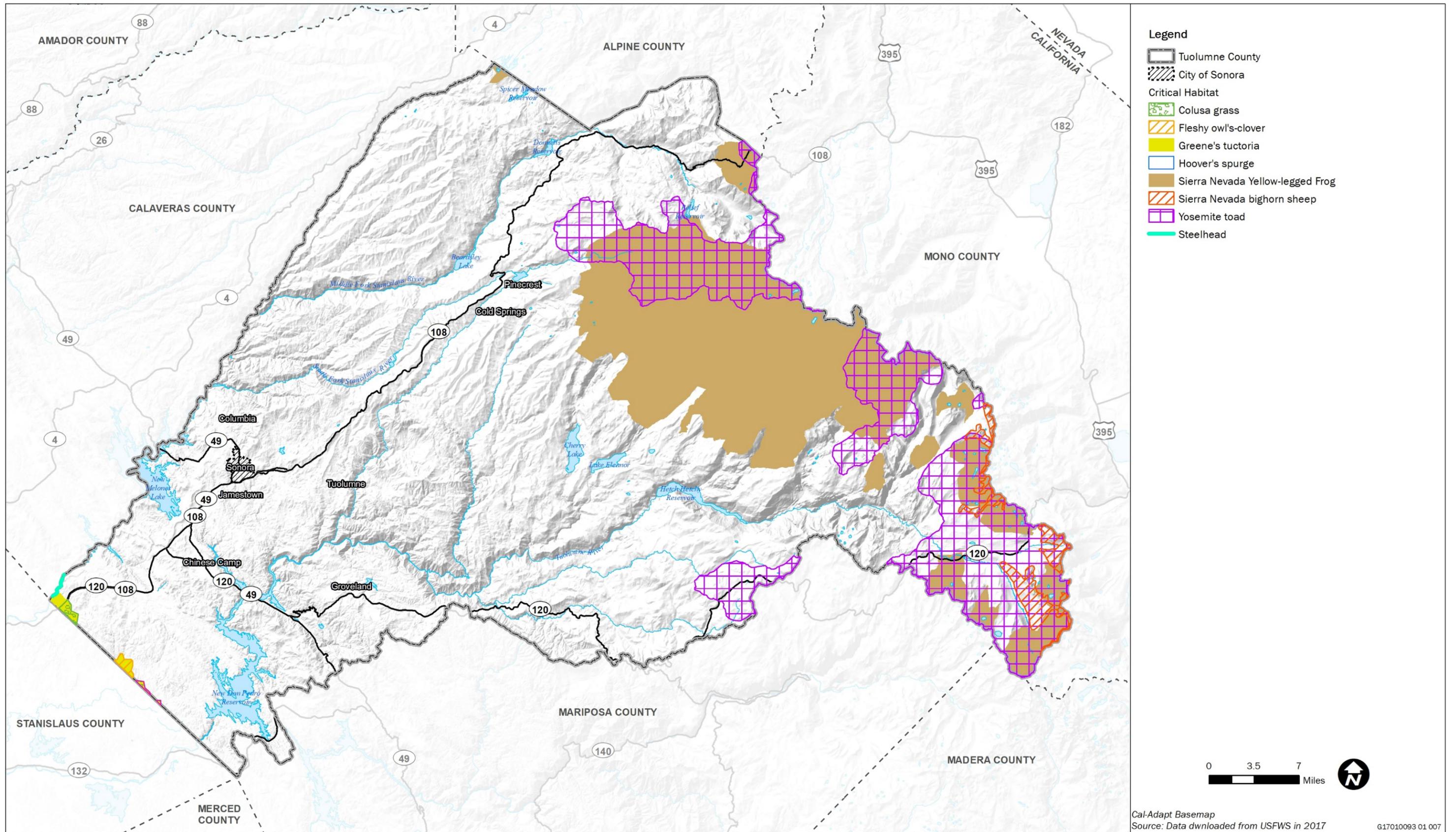
### 3.4.2 Regulatory Setting

Federal, state, and local authorities under a variety of statutes and guidelines share regulatory authority over biological resources. The primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions, which in this instance is the County of Tuolumne. The CDFW is a trustee agency for biological resources throughout the State under CEQA and also has direct jurisdiction under the California Fish and Game Code, which includes, but is not limited to, resources protected by the State of California under CESA.

#### FEDERAL

##### U.S. Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 U.S. Code [USC] Section 703 et seq.) and the Bald and Golden Eagle Protection Act (16 USC Section 668 et seq.). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA (16 USC § 1531 et seq.). The USFWS generally implements the ESA for terrestrial and freshwater species, while the NMFS implements the ESA for marine and anadromous species. Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain permits from the USFWS and/or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of ESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.



- Legend**
- Tuolumne County
  - City of Sonora
  - Critical Habitat**
    - Colusa grass
    - Fleshy owl's-clover
    - Greene's tuctoria
    - Hoover's spurge
    - Sierra Nevada Yellow-legged Frog
    - Sierra Nevada bighorn sheep
    - Yosemite toad
    - Steelhead



Cal-Adapt Basemap  
 Source: Data downloaded from USFWS in 2017  
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Exhibit 3.4-3

Critical Habitat





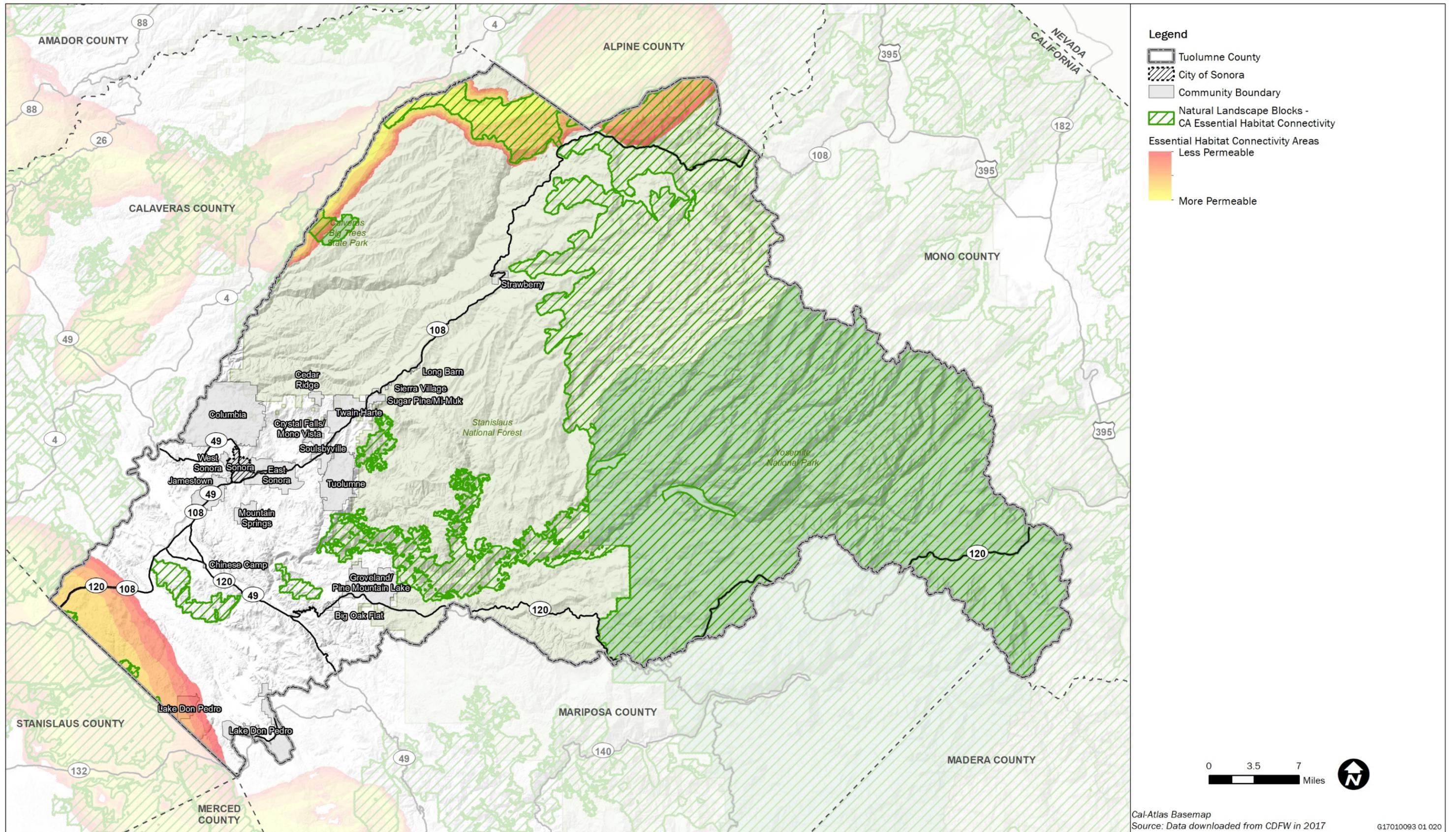


Exhibit 3.4-4

Essential Connectivity Areas





## United States Army Corps of Engineers

Under Section 404 of the CWA, the USACE has authority to regulate activities that result in discharge of dredged or fill material into wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetlands. In achieving the goals of the CWA, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any discharge into wetlands or other “waters of the United States” that are hydrologically connected and/or demonstrate a significant nexus to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetlands is met through compensatory mitigation involving creation or enhancement of similar habitats.

## STATE

### California Department of Fish and Wildlife

The CDFW derives its authority from the Fish and Game Code. CESA (Fish and Game Code Section 2050 *et seq.*) prohibits take of State-listed threatened and endangered species. Take under CESA is restricted to direct harm of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFW additionally prohibits take for species designated as Fully Protected under the Fish and Game Code under various sections.

California Fish and Game Code Sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Fish and Game Code Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Species of Special Concern is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The Species of Special Concern category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands, and these species are considered sensitive as described under the CEQA Appendix G questions. The CDFW also has authority to administer the Native Plant Protection Act (Fish and Game Code Section 1900 *et seq.*). The act requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the act, the owner of land where a rare or endangered native plant is growing is required to notify the CDFW at least 10 days in advance of changing the land use to allow for salvage of the plant(s).

Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Fish and Game Code Section 1600 *et seq.* (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

### Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and each of nine local RWQCBs has jurisdiction over “waters of the State” pursuant to the Porter-Cologne Water Quality Control Act, Water Code Section 13000 *et seq.*, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-DWQ, *Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction*). The local RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

### **California Department of Transportation - California Streets and Highways Code Section 156.3**

Assessments and remediation of potential barriers to fish passage for transportation projects using State or federal transportation funds are required. Such assessments must be conducted for any projects that involve stream crossings or other alterations and must be submitted to the CDFW.

### **Oak Woodlands Conservation Act and California Senate Bill 1334/Public Resources Code Section 21083.4**

In 2001, the California legislature enacted the Oak Woodlands Conservation Act (Assembly Bill 242), which established requirements for the preservation and protection of oak woodlands and trees, and allocated funding managed by the Wildlife Conservation Board. In order to qualify to use these funds, counties and cities must adopt an oak conservation management plan. In 2004, to expand these conservation efforts, the legislature passed Senate Bill 1334 (*Oak Woodlands Conservation: Environmental Quality*), which added Section 21083.4 to the Public Resources Code. This statute requires that a county must determine whether a project would result in a significant impact on oak woodlands and, if it is determined that a project may result in a significant impact on oak woodlands, then the County shall require one or more of the following mitigation measures:

- ▲ conserve oak woodlands through the use of conservation easements;
- ▲ plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings;
- ▲ contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; or
- ▲ other mitigation measures developed by the county.

## **LOCAL**

### **Tuolumne County General Plan**

The existing Tuolumne County General Plan was adopted on December 26, 1996. It has a planning horizon of 25 years. The Conservation and Open Space element contains goals and policies related to the protection of biological resources.

### **Tuolumne County Ordinance Code**

Chapter 9.24 of the County's Ordinance Code, Premature Removal of Native Oak Trees, provides requirements intended to discourage the premature removal of oak trees. Chapter 9.24 stipulates that the removal of native oak trees from a project site within the five (5) years preceding the submittal of an application for a discretionary entitlement from the County of Tuolumne for a land development project on that site is deemed premature removal and sets forth penalties and requirements for mitigation. Chapter 9.24 specifies that removals that qualify include:

- a. Removal of native oak trees resulting in a 10 percent or more (>10 percent) average decrease in native oak canopy cover within an oak woodland;
- b. Removal of any old growth oak trees, defined as any native oak tree that is 24" or greater in diameter at breast height (dbh);
- c. Removal of any Valley Oak measuring 5" or greater dbh.

The premature removal of native oak trees is subject to penalties, including withholding approval of an application for a discretionary entitlement on the site for a period of up to five years, and monetary penalties as high as three times the in-lieu fee established by the Board of Supervisors.

## Tuolumne County Oak Woodland Conservation Fund

In 2008, the Tuolumne County Board of Supervisors adopted Resolution 14-08, establishing the Tuolumne County Oak Woodland Conservation Fund for the collection of fees to mitigate impacts to oak woodlands and net loss of old growth oaks. The money collected in the fund may only be allocated by the Board of Supervisors. The fund may be used to purchase land in fee or conservation easements for the protection of native oak woodlands or for other measures that will restore or enhance native oak woodlands, or otherwise mitigate the impacts associated with the conversion of oak woodlands or impacts to old growth oaks (Tuolumne County 2018).

### 3.4.3 Impact Analysis

#### METHODS OF ANALYSIS

The following analysis is programmatic and is not developed for specific projects. Thus, project specific impacts to biological resources are unknown and a qualitative analysis is presented herein. Data used for this analysis include aerial photographs, topographic maps, the CNDDDB, the CNPS online inventory of rare and endangered plants, and accepted scientific texts to identify species. Federal special-status species inventories maintained by the USFWS were reviewed in conjunction with the CNDDDB and CNPS online inventory. Other data on biological resources were collected from numerous sources, including relevant literature, maps of natural resources, and data on special-status species and sensitive habitat information obtained from CDFW CNDDDB (2015), the CWHR (CDFW 2008), the CNPS online *Inventory of Rare, Threatened, and Endangered Plants of California* (2015), and the USFWS IPaC system (2015b). The USFWS Critical Habitat Mapper (2015c) and NWI (2015a) were also queried.

#### THRESHOLDS OF ANALYSIS

The following thresholds are based on Appendix G of the *State CEQA Guidelines*. Impacts would be significant if projected development under the General Plan Update would result in any of the following:

- ▲ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- ▲ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- ▲ have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- ▲ interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▲ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or
- ▲ conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## GENERAL PLAN UPDATE POLICIES

General Plan Update policies related to biological resources and, specifically, the thresholds of significance identified above, include the following:

### Managed Resources Element

- ▲ **Policy 7.A.1:** Encourage the conservation and management of timberlands through incentive programs while conforming with California forest practice law.
  - **Implementation Program 7.A.a:** Encourage retention of existing, and management of new timberlands by continuing to provide tax incentives to timberland owners, such as TPZ zoning or Williamson Act land conservation contracts, or other State or Federal incentive programs that may be offered to conserve timberlands.
  - **Implementation Program 7.A.b:** Encourage owners of timberlands which do not qualify for property tax incentives, such as Timberland Production (TPZ) zoning, to continue timber production through such incentives as recognition programs, or other local, State or Federal incentive programs that may become available.

### Agriculture Element

- ▲ **Policy 8.A.1:** Avoid the conversion of agricultural lands from the Agricultural General Plan land use designation and compatible zonings.
  - **Implementation Program 8.A.a:** Encourage the protection of agricultural lands through programs such as the voluntary purchase of development rights. This could be accomplished by establishing a conservation easement on the land. The easement could take the form of a deed restriction or be placed in a trust a specific period of time or in perpetuity.
- ▲ **Policy 8.A.2:** Exempt the following agricultural lands from Policies 8.A.1, 8.A.3 and 8.A.4:
  - Areas of land designated Agricultural that are less than 160 acres in size and are surrounded by land designated other than Agricultural or Public that is managed for open space uses. These areas may contain more than one parcel and ownership of the parcels may be by different owners.
  - Parcels that meet all of the following criteria: (1) the parcel is less than 80 acres in area; (2) the parcel is located within 500 feet of a public water main; and (3) the parcel is situated adjacent to land designated High Density Residential (HDR), Medium Density Residential (MDR), Low Density Residential (LDR), Mixed Use (MU), Neighborhood Commercial (NC), General Commercial (GC) or Heavy Commercial (HC) by the General Plan land use diagrams.

These agricultural lands may be converted from Agricultural to an appropriate land use designation as determined by the Board of Supervisors.

- ▲ **Policy 8.A.3:** Grant exceptions to Policy 8.A.1 regarding conversion of agricultural land only where the locational relationship of the land, together with the use proposed, would provide a public benefit of such magnitude as to justify the exception.
  - **Implementation Program 8.A.b:** Grant exceptions to the policies and implementation programs regarding conversion of agricultural land contained in this Element only when such exception is approved by the Board of Supervisors.
  - **Implementation Program 8.A.c:** Utilize the Agricultural Rating System matrix only to evaluate applications proposing exceptions to Policy 8.A.2.

- High-value Agricultural Lands are those parcels which receive a score of 175 or higher as determined by the Agricultural Rating System Matrix.
  - Agricultural Lands of Local Importance are those parcels which receive a score of at least 125 but not more than 174 as determined by the Agricultural Rating System Matrix.
  - Agricultural Lands of Limited Importance are those parcels which receive a score of 124 or lower as determined by the Agricultural Rating System Matrix.
- ▲ **Policy 8.A.4:** Development proposed adjacent to land designated Agricultural by the General Plan land use diagrams shall provide a buffer from the agricultural land. The buffer shall be 200 feet in width and located on the development site. No residential or non-agricultural buildings may be erected in the buffer area as long as the adjacent land remains designated Agricultural. The buffer may be reduced in width by the Board of Supervisors after considering the recommendation of the Agricultural Advisory Committee if such a reduction is determined appropriate based upon the topography, vegetation, roads or other physical features of the buffer area or other factors considered by the Committee. If the General Plan land use designation of the adjacent land is amended in the future to a designation other than Agricultural, the need for the buffer area will be eliminated and the land use restrictions imposed pursuant to this Policy will cease at that time.
  - ▲ **Policy 8.B.1:** Limit intrusion of urban development into agricultural areas.
    - **Implementation Program 8.B.a:** Make one of the following findings before approving expansion of identified community boundaries established on the General Plan land use diagrams:
      - (a) the proposed development would not result in reduced productivity or increased costs of an agricultural operation;
      - (b) the proposed development would not contribute to the deterioration of the rural setting, agricultural landscape, and operation practices of the adjacent agricultural areas; or
      - (c) the community's need for the development in the proposed location is so important as to justify an exception to the policies and implementation programs contained within this Element.
  - ▲ **Policy 8.B.2:** Protect and encourage productive use of valuable agricultural lands and areas that provide buffers between identified communities.
  - ▲ **Policy 8.B.3:** Reduce economic pressure for conversion of agricultural land.
    - **Implementation Program 8.B.b:** Allow uses accessory or complementary to agricultural operations as permitted or conditional uses in order to make agricultural operations more profitable and reduce pressure to convert agricultural land.
  - ▲ **Policy 8.B.4:** Limit the intrusion of growth-inducing public services, such as public sewer systems and potable public water, into agricultural areas.
  - ▲ **Policy 8.B.5:** Encourage development of non-agricultural lands before development of land designated Agricultural by the General Plan land use diagrams.

### Natural Resources Element

- ▲ **Policy 16.A.5:** Conserve scenic resources, landmarks and the natural landscape.

- **Implementation Program 16.A.i:** Provide flexibility in development standards to facilitate the clustering of new development in order to encourage the retention of scenic resources, landmarks and the natural landscape.
- **Implementation Program 16.A.j:** Recognize that Table Mountain has significant cultural, scenic and natural resource values and is a County landmark and, as such, adopt regulations and incentives for conserving Table Mountain.
- ▲ **Policy 16.A.6:** Encourage the protection of clusters of native trees and vegetation and outstanding individual native and non-native trees which help define the character of Tuolumne County.
  - **Implementation Program 16.A.k:** Establish an incentive program to retain existing vegetation, such as Heritage Trees, stands of oak woodlands, or clusters of native shrubs within new development
  - **Implementation Program 16.A.l:** Maintain the Premature Removal of Native Oak Trees Ordinance.
  - **Implementation Program 16.A.m:** Establish a Heritage Tree Program which:
    - Establishes criteria for identifying individual or groves of native and non-native trees and street trees as heritage trees, based on outstanding scenic, historic or biological value and/or the status of the tree as unique in terms of age and/or size when compared to other trees of the same species. Trees considered local landmarks and those contained in the National Register of Big Trees also should be considered as heritage trees.
    - Creates programs encouraging the preservation of heritage trees including recognition and public education programs and participation in inter-county and interstate competitions.
    - Addresses health and safety issues associated with trees located adjacent to local airports.
- ▲ **Policy 16.B.1:** Recognize and map the variety of open space types and areas that are located within the county, including natural resources, recreation areas, geologic hazards, floodplains, groundwater recharge areas, managed resource areas and other open areas that support biological resources.
- ▲ **Policy 16.B.2:** Recognize that agricultural and timberlands may be compatible with conservation of biological resources.
  - **Implementation Program 16.B.a:** Recognize that the open area provided by land designated as Agricultural or Timber Production on the General Plan land use diagrams that supports an agricultural, timber management or residential land use or is unimproved may be used to provide on-site or off-site mitigation for development projects, such as conservation easements, mitigation banks for plant and wildlife species impacts, and other in perpetuity mitigation options.
- ▲ **Policy 16.B.3:** Require property owner consent prior to designating areas as Open Space on the General Plan land use diagrams, or zoning areas to Open Space or Open Space-1.
- ▲ **Policy 16.B.4:** Recognize that wildlife, fish and their habitats provide opportunities for recreational uses and educational pursuits and are a source of revenue to the County.
  - **Implementation Program 16.B.b:** Encourage the preservation of open areas for recreational activities, including provision of an appropriate balance of facilities suitable for intensive use (e.g. playgrounds, sports fields) and low intensity use (e.g., hiking, camping) that meet the needs of residents and visitors. Preservation of open areas that provide cultural, historical and educational opportunities for residents and visitors should also be encouraged.

- **Implementation Program 16.B.c:** Allow trails, other recreational uses and educational pursuits in areas conserved for biological resources if the effects of such uses are determined to be compatible with conservation of the resources.
- **Implementation Program 16.B.d:** Design parks and trails incorporating scenic resources and biological and water resource areas consistent with the goals and policies of this Element of the General Plan.
- **Implementation Program 16.B.e:** Review all revisions of the Recreation Master Plan prior to adoption for consistency with this Element of the General Plan. In addition, design plans for all trails, especially those adjacent to creeks, shall require the input and review of the Tuolumne County Community Resources Agency and the California Department of Fish and Wildlife for consistency with this Element.
- **Implementation Program 16.B.f:** To provide recreational use in water resource areas, continue to conditionally permit, in the O (Open Space) and O-1 (Open Space -1) zoning districts, recreational uses where such uses do not adversely impact water resources, such as beaches, picnic areas, non-motorized pedestrian and equestrian trails and other recreational uses.
- ▲ **Policy 16.B.5:** Evaluate and mitigate impacts to biological resources in accordance with the requirements of State and Federal law.
  - **Implementation Program 16.B.g:** Maintain the Tuolumne County Wildlife Maps to assist in evaluating the effects of land development projects.
  - **Implementation Program 16.B.h:** Provide the following information to assist in the evaluation of biological resources:
    - Tuolumne County Wildlife Maps
    - Deer Herd Maps and Management Plans
    - California Wildlife Habitat Relationships habitat typing and mapping
    - U.S. Department of Agriculture Forest Service Calveg mapping data
  - **Implementation Program 16.B.i:** Require development that is subject to a discretionary entitlement from the County and to environmental review under the California Environmental Quality Act (CEQA) to evaluate potential impacts to biological resources and mitigate significant impacts for the following or as otherwise required by State or Federal law:
    - species listed or proposed for listing as threatened, rare, or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA)
    - species considered as candidates for listing under the ESA or CESA
    - wildlife species designated by CDFW as Species of Special Concern
    - animals fully protected under the California Fish and Game Code
    - plants considered by CDFW to be “rare, threatened, or endangered in California” (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California and not known to occur elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California, but more common elsewhere and 2B, considered rare or endangered in California but more common elsewhere).

- Sensitive natural communities, including wetlands under Federal and/or State jurisdiction, other aquatic resources, riparian habitats, and valley oak (*Quercus lobata*) woodland.
  - Important wildlife movement corridors and breeding sites.
  - Oak woodlands, as provided in Implementation Programs 16.B.j and 16.B.l.
- **Implementation Program 16.B.j:** Establish thresholds of significance under the California Environmental Quality Act (CEQA) for the conversion of oak woodlands in Tuolumne County. The following provides the County's recommended standard guidelines for determining whether a project may result in a significant impact to oak woodlands, for purposes of review under CEQA and Public Resources Code Section 21083.4:
- An oak woodland is defined in the General Plan as a woodland stand with 10% or greater native oak canopy cover. Tree removal from parcels with less than 10% native oak canopy cover is not considered a significant conversion or loss of oak woodland.
  - For parcels with 10% or greater native oak canopy cover (i.e., parcels with oak woodland, as defined in the General Plan), a significant impact to oak woodland includes tree removal that reduces the total oak canopy cover onsite to below 10% (i.e., conversion to non-oak woodland), or a loss of 10% or greater of oak canopy woodland stand on the parcel, if the conversion or loss is determined to be substantial in consideration of, but not limited to, the following:
    - Total acres and amount of woodland stand removed or disturbed, and amount retained onsite.
    - Pattern of development or habitat loss onsite (e.g., clustered vs. dispersed).
    - Existing habitat functions and quality (e.g., intact/high-quality, moderately degraded, or severely degraded).
    - Stand age- or size-class structure.
    - Rarity.
    - Landscape position in relation to larger wildlife corridors, stream systems, or other important natural features.
    - Loss of valley oak (*Quercus lobata*) woodland, which is a sensitive habitat.
    - Proximity to other oak woodland patches and connectivity to large blocks of intact habitat.
    - Contribution to a cumulative loss, degradation, or fragmentation of oak woodland across the County.
- ▲ **Policy 16.B.6:** Allow property owners to utilize the Tuolumne County Wildlife Handbook, which may be updated periodically, to assist in designing mitigation for impacts to biological resources resulting from new development.
- **Implementation Program 16.B.k:** Periodically update the Tuolumne County Wildlife Handbook in accordance with changes in State and Federal laws and environmental review standards, recognizing that state and federal laws may require mitigation beyond what is adopted in the Wildlife Handbook.

- ▲ **Policy 16.B.7:** Encourage development in identified communities to minimize impacts to biological resources.
  - **Implementation Program 16.B.i:** Evaluate, on a project by project basis, the appropriateness of exempting projects in identified communities from **Implementation Program 16.B.j** to encourage development in identified communities and minimize impacts to biological resources outside of identified communities.
  - **Implementation Program 16.B.m:** When evaluating land development projects proposed in identified communities, recognize that there may be reduced impacts to biological resources from concentrating new development within identified communities.
  - **Implementation Program 16.B.n:** Conserve areas, such as wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas, that provide carbon sequestration benefits and other biological functions.
  - **Implementation Program 16.B.o:** Within identified communities, retain oak woodland habitat as much as practical, such as incorporating oak woodland into landscaped or public spaces to enhance project site aesthetics, using oak woodland as visual buffers between land uses, and using oak woodland habitat to maintain slopes and reduce on-site runoff.
- ▲ **Policy 16.B.8:** Balance the conservation of biological resources with the need to reduce wildland fire hazards.
  - **Implementation Program 16.B.p:** Encourage vegetation removal for fire protection purposes or as otherwise required by the Tuolumne County Fire Department in the Open Space zoning district or other areas conserved through zoning, provided such vegetation removal is addressed in a management plan and approved following review under the California Environmental Quality Act.
- ▲ **Policy 16.B.9:** Encourage the eradication of invasive plant species to protect native habitats, conserve agricultural land, support ecological diversity and reduce the wildland fire hazard.
  - **Implementation Program 16.B.q:** Discourage the sale of invasive plant species and noxious weeds identified by the State.
  - **Implementation Program 16.B.r:** Support efforts to control, and where possible, eradicate, invasive plant species in the County.
  - **Implementation Program 16.B.s:** Seek grant and other funding sources for programs to eradicate invasive plant species from the County.
  - **Implementation Program 16.B.t:** Refer applications for discretionary land development entitlements to the Agricultural Commissioner to identify potential impacts from invasive plant species and recommend appropriate mitigation measures.
  - **Implementation Program 16.B.u:** Encourage eradication of invasive plant species in biological resource conservation areas provided such eradication is addressed in a management plan prepared by a biologist on the County's list of approved environmental consultants and approved by the County following review under the California Environmental Quality Act.
  - **Implementation Program 16.B.v:** Develop a programmatic approach to vegetation removal for the eradication of invasive plant species.
  - **Implementation Program 16.B.w:** Develop an incentive program to encourage the eradication of invasive plant species and the removal of vegetation for fire protection.

- ▲ **Policy 16.B.10:** Encourage planting of native species or other drought tolerant species.
  - **Implementation Program 16.B.x:** Encourage the use of native species and other drought tolerant species listed on the Tuolumne County Landscape Guidelines to promote water efficiency and reduce impacts associated with the introduction of exotic species.
- ▲ **Policy 16.B.11:** Expand the list of permitted uses in the Open Space-1 zoning district in Title 17 of the Tuolumne County Ordinance Code for the conservation and utilization of the County's water resources to include such uses as water monitoring installations, excluding wells, improvements to aquatic, plant and wildlife habitat, erosion control projects, and vegetation removal for flood control.
- ▲ **Policy 16.C.1:** Develop a Natural Resources Division within the Community Resources Agency to centralize County efforts and involvement in issues and projects involving natural resources.
- ▲ **Policy 16.C.2:** Develop incentive programs to encourage private property owners to conserve areas that support high value biological resources.
  - **Implementation Program 16.C.a:** Create a voluntary register of high value biological resources, such as habitat for rare, threatened and endangered species; habitats that are particularly valuable to wildlife and/or rare in the County; and undisturbed oak woodlands. Listing on the register shall only occur at the request of the property owner. Prior to listing an area on the register, the area shall be surveyed by County Staff or a biologist on the County's list of approved environmental consultants to verify the value of the biological resources thereon. Surveys conducted on private property shall occur only with prior written permission from the property owner. The register would assist in implementing voluntary preservation efforts, assist in reducing the cost of new development associated with identifying biological resources and identifying areas which may be acquired and/or managed as off-site areas to mitigate impacts of new development. Lands listed on the register may qualify the owner for incentive programs, be acquired from willing sellers, or be managed in cooperation with willing property owners. Oak woodlands listed on the register could be purchased by the County or conserved through an easement using the Tuolumne County Oak Woodlands Conservation Fund.
  - **Implementation Program 16.C.b:** Identify agencies to accept and/or manage land dedications, donations and conservation easements.
- ▲ **Policy 16.C.3:** Support efforts to identify and protect high value biological resource areas on private lands from willing owners, especially on land that provides additional public benefits including educational, recreational and scenic opportunities.
  - **Implementation Program 16.C.c:** Notify owners of high value biological resources of available incentive programs including tax incentives and the California Forest Stewardship Program.
  - **Implementation Program 16.C.d:** Assist willing property owners to enter into conservation programs through coordination with outside stewardship programs and accessing financing programs to conserve biological resources.
  - **Implementation Program 16.C.e:** Apply for grants from local, state and federal sources to assist in funding the acquisition of high value biological resources, such as habitat for rare, threatened and endangered species, habitats that are particularly valuable to wildlife and/or rare in the County, and undisturbed oak woodlands.
  - **Implementation Program 16.C.f:** Protect biodiversity and habitats from climate change effects by cooperating with other agencies to acquire or otherwise protect open space areas that provide key habitat linkages and wildlife movement corridors on a regional level.

- ▲ **Policy 16.C.4:** Support educational programs that describe methods of habitat conservation, encourage voluntary efforts to protect and enhance biological resources, provide opportunities for ongoing study by local students, and provide opportunities for recreation and enjoyment by the community.
- ▲ **Policy 16.C.5:** Encourage the conservation of oak woodlands and the preservation of heritage trees.
  - **Implementation Program 16.C.g:** Plant native trees throughout Tuolumne County.
  - **Implementation Program 16.C.h:** Make the Tuolumne County Oak Woodland Voluntary Management Guidelines available to property owners upon request to assist them with voluntary conservation of oak woodlands.
  - **Implementation Program 16.C.i:** Cooperate with agencies and entities in their efforts to encourage voluntary stewardship of tree resources including:
    - Providing brochures, produced by these and other interested agencies, illustrating protection methods for construction near native trees.
    - Distributing handouts promoting the retention of tree quality and quantity throughout the County by providing guidelines for replacing native trees removed during construction, including size and quantity.
    - Promoting elementary and secondary school programs providing education on the benefits of native trees and including acorn and tree planting programs.

## PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts to sensitive biological resources from development facilitated by implementation of the proposed General Plan Update. Evaluation of environmental impacts associated with the General Plan Update considers the projected development under the General Plan Update, in accordance with goals, policies, and implementation programs, to accommodate projected growth in the County. It should be noted that the County's population is projected to grow by 0.6 percent annually over the planning horizon (2040). As discussed in detail in Chapter 2, "Project Description," and the introduction to Chapter 3, this is a relatively low amount of growth.

### Impact 3.4-1: Disturbance or Loss of Special-Status Plant and Animal Species

Projected development under the General Plan Update may result in the disturbance or loss of special-status plant and animal species. However, the compliance with state and federal law, as well as implementation of the General Plan Update's policies and implementation programs, would reduce potential impacts of projected development under the General Plan Update and require project-level environmental review and mitigation, if needed. This impact would be **less than significant**.

For the purposes of this analysis, special-status plant and animal species include those designations described in Section 3.4.1, "Environmental Setting," above. Under the General Plan Update new development is being directed towards the 18 identified communities, including the five Community Plan areas (Jamestown, Columbia, East Sonora, Tuolumne, and Mountain Springs). However, the identified community boundaries may be expanded to allow appropriate new projects to occur near existing community nodes.

As mentioned above and presented in Tables 1 and 2 (Appendix B), 177 special-status species are known or have potential to occur within Tuolumne County, 76 percent of which are plant species. Thirty-one of these species (21 animal species and 10 plant species) are given high levels of protection by the federal government through listing under ESA and/or by the State government through listing under CESA or as Fully Protected under the Fish and Game Code. CEQA requires analysis of the remaining species shown in Tables

1 and 2 (Appendix B) and mitigation if impacts are significant and mitigation is feasible. Most special-status species have very limited ranges within Tuolumne County and have specific habitat requirements, such as specific soil, moisture, or other biophysical requirements (e.g., serpentine soils, mesic/wet microhabitats). Special-status species may also be associated with sensitive habitats, such as riparian habitats, oak woodlands, and drainages.

Because of the programmatic nature of the General Plan Update, a precise, project-level analysis of the specific effects of individual projects on special-status species is not possible at this time; the analysis is maintained at the County level. Although projected development would be limited and would be encouraged to be concentrated in and around identified communities, which would minimize or avoid potential disturbance or loss of special-status species, some special-status species may occur within identified communities, such as in appropriate natural habitats at the fringe of the communities or within drainages. Development may also occur outside identified communities, despite policies that incentivize development within identified communities.

Projected development under the General Plan Update that occur in the vicinity of rivers and creeks may be within suitable habitat for species such as California red-legged frog (*Rana draytonii*) (federally listed threatened and California species of special concern) and Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*) (federally listed threatened). In addition to the rivers and creeks that may be disturbed, projected development under the General Plan Update could disturb upland habitats and the sensitive plant and animal species that may occupy them. Furthermore, the wide variety of habitats within Tuolumne County, including those already largely developed, can support many species of nesting birds, including sensitive species such as burrowing owl (*Athene cunicularia*) (California species of special concern) as well as many common bird species that are protected by the Migratory Bird Treaty Act and Fish and Game Code. Disturbance of special-status plants such as the federally listed threatened and state-listed endangered Chinese camp brodiaea (*Brodiaea pallida*) could result in reductions in local population size, habitat fragmentation, or lower reproductive success.

Potential direct impacts to special-status species include injury or mortality that may occur during projected development under the General Plan Update. Direct impacts also include habitat modification and loss that results in the mortality or otherwise alters the foraging and breeding behavior substantially enough to cause injury. Indirect impacts could be caused by the spread of invasive non-native species that out-compete native species and/or alter habitat towards a state that is unsuitable for special-status species. For example, the spread of certain weed species can reduce the biodiversity of native habitats, potentially eliminating special-status plant species and reducing the availability of suitable forage and breeding sites for special-status animal species. However, for discretionary projects, the County requires implementation of BMPs to prevent or reduce the construction-related introduction or spread of invasive plants. Indirect impacts could also result from increased access by humans and domestic animals, particularly in areas where trails, bike paths, and other transportation infrastructure would be located.

Although habitat for special-status plant and animal species may be directly or indirectly affected, potential disturbances or loss as a result of projected development under the General Plan Update are expected to be focused within the identified communities. Additionally, under the General Plan Update, each discretionary project that could affect biological resources would require project-specific environmental review. For species listed as threatened or endangered under ESA or CESA, which are considered the species rarest and most vulnerable to disturbance or loss as a result of development, existing state and federal laws address potential impacts through site-specific environmental review and permitting requiring development and implementation of project-specific conservation measures to minimize or avoid impacts through the design process, and providing compensatory or other mitigation for any adverse effects on these species as a condition of project approval. Specifically, USFWS and CDFW would not permit a project that would degrade habitat or result in take of a state or federally listed species without compensatory mitigation to fully mitigate for the significant impact. The County will require project applicants to obtain any required take permits prior to project implementation.

For other special-status species with less formal regulatory protection (e.g., California species of special concern, rare plants not protected by CESA or ESA), project-level planning and environmental analysis for CEQA review would identify potentially significant impacts, based on the type and location of the project; minimize or avoid those impacts through the design process (e.g., conducting surveys and modifying projects to avoid special-status species, if feasible); and provide mitigation for any significant impacts as a condition of project approval (e.g., implementing limited operating periods for construction and/or operations, compensatory habitat enhancement/restoration). Because development would be encouraged to be concentrated in and around the 18 identified communities and most of Tuolumne County would continue to support large blocks of habitat and undeveloped land under the General Plan Update (e.g., 77.8 percent of land in public, open space, and parks and recreation designations, and 16.6 percent in agricultural and timber production designations; see Table 2-1 and Exhibit 2-2 in Chapter 2, “Project Description”), the potential disturbance or loss of special-status species not formally protected by state and federal laws is expected to be limited and mitigation can be used to avoid substantial impacts using standard measures regularly implemented for these types of species. Project-specific mitigation measures would be developed consistent with applicable state and federal requirements. For those species for which published mitigation guidance exists, developed mitigation measures would follow the guidance provided in these publications or provide a similar level of protection. If previous published guidance does not exist, mitigation would be developed in consultation with the appropriate agencies (e.g., CDFW for species of special concern and CRPR-ranked species). If mitigation was not adopted at an individual project level, County decision-makers would be required to adopt a statement of overriding considerations, as required by CEQA, allowing significant unavoidable impacts at a project level. This level of specificity and speculation regarding future decision-making is beyond the reasonable scope of a General Plan program EIR.

In addition to existing state and federal laws and permitting processes, the General Plan Update includes several policies and implementation programs intended to further reduce potential impacts to habitats and special-status species and require project-level environmental review and mitigation for significant effects (see “General Plan Update Policies,” above). For example, Policies 16.A.6, 16.B.1, 16.B.2, 16.B.4, 16.B.7, 16.B.9, 16.B.10, 16.C.1, 16.C.2, 16.C.3, and 16.C.5 address tree retention, open space conservation and encouraging development to occur within identified communities, invasive species eradication, native species establishment, incentives for conserving sensitive habitats, and conservation of oak woodlands and preservation of heritage trees. Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts to biological resources and mitigate significant impacts to special-status plant and animal species. Policy 16.B.6 allows property owners to utilize the Tuolumne County Wildlife Handbook to assist in designing mitigation for impacts to special-status species and biological resources, recognizing that mitigation requirements for projects may exceed the options presented in the Wildlife Handbook.

Development within five of the identified communities would be guided additionally by Community Plans, which include additional policies and implementation programs designed to minimize the disturbance or loss of habitats and species. For example, the Jamestown Community Plan includes the following policy that would reduce potential impacts to habitats and special-status species within the Jamestown plan area.

- ▲ **Policy 14.F.6:** Minimize the inherent conflict between development and wildlife habitat by encouraging future development to locate in the less sensitive, or less important habitat areas or on sites adjacent to previously developed and disturbed areas.

The Columbia Community Plan includes the following policy that would reduce potential impacts to special-status species within the Columbia plan area.

- ▲ **Policy 15.E.3:** Minimize conflicts between development and wildlife habitat by encouraging future development to locate in less sensitive, or lower priority habitat areas or on sites adjacent to previously developed and disturbed areas.

The East Sonora Community Plan includes the following policies that would reduce potential impacts to special-status species within the East Sonora plan area.

- ▲ **Policy 16.C.1:** Minimize the existing conflict between development and wildlife habitat within East Sonora.
- ▲ **Policy 16.C.3:** Encourage new development to capitalize on the use of native vegetation for aesthetic and functional purposes.

The Tuolumne Community Plan includes the following implementation program that would reduce potential impacts to special-status species within the Tuolumne plan area.

- ▶ **Implementation Program 17.F.d:** Revegetation. For revegetation efforts, promote the application of native seed mixes for consistency with the naturally occurring vegetation and emphasizing the use of native grasses. Promote the use of native plants from locally grown stock (e.g., the Tuolumne Band of Me-Wuk Native Plant Nursery) for revegetation efforts requiring trees, shrubs and other perennials.

### **Conclusion**

Although habitat for special-status plant and animal species may be directly or indirectly affected, potential disturbances or loss as a result of projected development under the General Plan Update are expected to be limited and focused within the identified communities. Additionally, under the General Plan Update, each discretionary project that could affect biological resources would require project-specific environmental review. Compliance with state and federal law, as well as implementation of the General Plan Update's policies and implementation programs, would reduce potential impacts of projected development under the General Plan Update and require project-level environmental review and mitigation, if needed. For example, implementation of Policy 16.B.5 and its implementation programs requires development that is subject to a discretionary entitlement from the County and environmental review under CEQA to evaluate potential impacts to biological resources and mitigate significant impacts to special-status plant and animal species. Additional policies and implementation programs focus on reducing the prevalence of non-native species and encouraging avoidance of high-quality habitat areas. Compliance with existing federal and state regulations, and implementation of the General Plan Update policies and implementation programs to protect special-status species, particularly Policy 16.B.5, would ensure impacts to special-status species are **less-than-significant**.

### **Mitigation Measures**

No mitigation is required.

### **Impact 3.4-2: Loss or Degradation of Riparian, Oak Woodland, and Other Sensitive Natural Communities**

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Projected development under the General Plan Update may result in the loss or degradation of riparian habitat, oak woodlands, or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by CDFW or USFWS. This impact would be **potentially significant**.

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Because of the programmatic nature of the General Plan Update, a precise, project-level analysis of the specific impacts of individual development projects under the General Plan Update on riparian habitats and other sensitive communities is not possible at this time and the level of analysis is maintained at the County level. Projected development under the General Plan Update would be directed within the identified communities, which would minimize or avoid the impact to riparian areas, oak woodland, and other sensitive communities. Surrounding rural development would serve as buffers between identified communities and help meet the functional needs of the natural environment and nearby agriculture production. Rural development may be primarily located on the fringe of identified communities, but clustered or grouped together to make the best use of infrastructure and avoid disruption to agricultural lands and environmentally sensitive areas. Based on proposed land use designations and existing developed land, the total developable land within the County (excluding agricultural land) is approximately 163,000 acres, or 11

percent of the unincorporated land within the County. However, based on the County's annual growth projection of 0.6 percent, the projected total residential increase of 5,159 (average of around 250 units per year), the projected commercial increase of 938,000 square feet, and the projected industrial increase of 196,000 square feet through 2040, it is reasonable to assume that most of the developable land in the County would remain undeveloped through 2040.

The following discusses potential impacts of projected development under the General Plan Update on sensitive natural communities and habitats.

#### **Riparian Habitat and Other Sensitive Natural Communities**

Although the General Plan Update land use diagram and policy framework is intended to encourage and direct development in and around identified communities, some riparian areas and other sensitive habitats are expected to be encountered where development may occur within or adjacent to natural habitats such as at urban fringe areas or where creeks and rivers pass through identified communities. Thus, it is assumed that some sensitive resources would not be avoided by projected development under the General Plan Update.

In addition, projects in the vicinity of rivers and creeks may involve development along riparian corridors. Riparian areas provide wildlife habitat and movement corridors, enabling both terrestrial and aquatic organisms to move along river systems between areas of suitable habitat. Most riparian habitats in the County are located on public land and other land use designations where development would not occur. For example, approximately 98 percent (12,251 of 12,527 acres) of foothill riparian and montane riparian habitats mapped in the County are located in public, open space, parks and recreation, and agricultural land use designations under the General Plan Update. In addition to riparian habitats, oak woodland communities and other vegetation communities that are considered sensitive also occur within the County. Developments in the vicinity of these habitats are likely to occur due to the presence of some of these habitats on private lands in the County. (Impacts to oak woodlands are discussed in further detail, below.)

Projected development under the General Plan Update could directly and indirectly affect riparian and other sensitive habitats. Direct impacts to riparian and other sensitive habitats include permanent removal or disturbance during construction. Indirect impacts include habitat degradation caused by new introductions or spread of invasive plant species incidentally from construction equipment and through selection of invasive landscape plants, as well as erosion and sedimentation in disturbed riparian, aquatic, and other sensitive areas.

The General Plan Update includes several policies and implementation programs intended to reduce potential impacts to riparian, oak woodland, and other sensitive habitats, and require project-level environmental review and mitigation for significant effects (see "General Plan Update Policies," above). Specifically, Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts to biological resources and mitigate significant impacts to riparian and other sensitive habitats. Additionally, development within five of the identified communities would be guided by Community Plans, which include additional policies and implementation programs designed to minimize the disturbance or loss of sensitive habitats. For example, the Jamestown Community Plan includes the following policy and implementation programs that would reduce potential impacts to riparian habitat and other sensitive communities within the Jamestown plan area.

- ▲ **Policy 14.F.8:** Preserve natural resource and wildlife habitat areas, reduce exposure to risk in hazardous areas, and enable recreational opportunities to be maintained or provided by designating hazardous areas, such as floodways, and biological and water resources areas as Open Space.
- **Implementation Program 14.F.c:** Limit Crossing of Waterways. Limit the number of road crossings of streams, creeks and other drainages and require the design of crossings to be perpendicular to Woods Creek and other drainages to minimize impacts of riparian habitat as a condition of approval of entitlements for new development.

- **Implementation Program 14.F.d:** Encourage Retaining Woods Creek in an Open Condition. Discourage, through the land development application review process, the culverting, piping or lining of Woods Creek by private entities unless no alternative is feasible. Where valuable riparian habitat is destroyed by such necessary action, alternate habitat improvements may be required on or off-site.
- **Implementation Program 14.F.e:** Habitat Conservation and Recreational Opportunities along Woods Creek. Require appropriate mitigation for impacts to biological resources from new development along Woods Creek and encourage the design of such new development to accommodate the provision of trails along the Creek for recreational opportunities. The future provision of easements and trails along Woods Creek shall not in any manner, authorize trespass upon private property, or increase the right of public agencies to gain access to private property unless expressly authorized by the property owner.

The Columbia Community Plan includes the following policy and implementation program that would reduce potential impacts to riparian habitat and other sensitive communities within the Columbia plan area.

- ▲ **Policy 15.E.8:** Encourage protection of vegetation noteworthy within the Columbia area, such as stands of mature ponderosa and sugar pine trees.
- **Implementation Program 15.E.c:** Woods Creek and Mormon Creek. Require appropriate mitigation for impacts to biological resources from new development along Woods Creek and Mormon Creek and encourage the design of such development to accommodate the provision of non-motorized trails along the creeks for recreational opportunities. Encourage the dedication of public access easements to capitalize on the recreational opportunities of Mormon Creek and Woods Creeks.

The East Sonora Community Plan includes the following policy and implementation program that would reduce potential impacts to riparian habitat and other sensitive communities within the East Sonora plan area.

- ▲ **Policy 16.C.6:** Encourage and support voluntary efforts to protect and enhance Sullivan Creek, Elsey's Pool, Curtis Creek, Sonora Creek and associated riparian vegetation for scenic and recreational values.
- **Implementation Program 16.C.e:** Limit Crossing of Waterways. Limit the number of road crossings of streams, creeks and other tributaries of Sullivan, Sonora and Curtis Creeks to minimize impacts of riparian habitat as a condition of approval of entitlements for new development.

The Tuolumne Community Plan includes the following implementation program that would reduce potential impacts to riparian habitat and other sensitive communities within the Tuolumne plan area.

- **Implementation Program 17.F.h:** Retain Turnback Creek in an Open Condition. Discourage, through the land development application review process, the culverting, piping, or lining of Turnback Creek by private entities. Where valuable riparian habitat is destroyed by unavoidable actions, revegetation plans designed and monitored by qualified individuals should be undertaken.

### **Oak Woodlands**

The lower and middle elevations of Tuolumne County contain approximately 115,010 acres of oak woodland, including blue oak woodland (72,025 acres), blue oak-foothill pine (11,236 acres), interior live oak woodland (30,724 acres), and valley oak woodland (1,025 acres). Of this amount, approximately 21,262 acres (18.5 percent) are on potentially developable parcels (i.e., residential, commercial, mixed use, business park) throughout the entire County; and, 10,808 acres (9 percent) are located specifically within identified community boundaries. Approximately 81 percent of oak woodland in Tuolumne County is located within agricultural (68,863 acres) and public (24,015 acres) land use designations. An additional 164,883 acres of montane hardwood and montane hardwood-conifer are distributed in the middle to upper elevations of the County. Although montane hardwood and montane hardwood-conifer habitats may contain a substantial oak element, the amount of oak cover is typically variable and oaks are often not the dominant species.

Disturbance, loss, and fragmentation of oak woodland from projected development under the General Plan Update could result from direct loss of trees (either individuals or entire stands). The amount of woodland actually subject to removal will depend on market conditions and the growth pattern in the County, the types and magnitude of development projects on parcels that support oak woodland, effectiveness of General Plan Update policies that encourage oak conservation, and other factors. The greatest potential for oak woodland loss would be in the residential land use designations, including rural, estate, large lot, and the urban land use designations, because development will be directed to the identified communities where these land use designations generally occur.

Although a total of 21,262 acres (18.5 percent) of oak woodland canopy are on potentially developable parcels, half of that amount (10,808 acres [9 percent]) is located within identified communities where the majority of development is incentivized by the General Plan Update. Additionally, projected development allowable on parcels that support oak woodland are not expected to eliminate all oak canopy; and, Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts to oak woodland and mitigate significant impacts. Therefore, the amount of oak woodland ultimately removed by projects under the General Plan Update is expected to be small relative to the amount available in Tuolumne County. It should also be noted, as discussed above, that only a portion of the developable land in the County would be developed to accommodate the 0.6-percent annual growth anticipated to occur in the County through 2040.

According to Public Resources Code Section 21083.4, a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more oak woodlands mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands such as acquisition of conservation easements, planting, and contribution of funds to an Oak Woodlands Conservation Fund. General Plan Update Policy 16.B.5 addresses this requirement by establishing thresholds of significance for conversion of oak woodlands based on acreage affected, habitat quality, and other ecological factors, and by requiring mitigation for significant conversion of oak woodland.

### **Conclusion**

For the reasons discussed above, potential loss or degradation of sensitive habitats as a result of projected development under the General Plan Update is expected to be limited relative to the amount available in the County and concentrated primarily within the identified communities. Other than oak woodlands, riparian and aquatic and habitats are the most abundant and widely distributed sensitive habitats in Tuolumne County. Compliance with existing state and federal regulations and permitting requirements during project-level environmental review would minimize the loss of these sensitive habitats during construction and provide habitat compensation for the unavoidable loss of riparian and aquatic habitats through CWA Section 404 and Fish and Game Code Section 1600 et seq. permitting/review processes. These existing regulations require that compensation for unavoidable project-related losses or degradation of these sensitive habitats is achieved in a manner that results in no net loss. Therefore, the potential permanent loss or disturbance of riparian, wetland, and aquatic habitats as a result of projected development under the General Plan Update is not expected to be substantial.

In addition to existing state and federal regulations that protect some sensitive habitats (e.g., riparian and aquatic resources), General Plan Update policies and implementation programs, and policies established in the five Community Plans, address minimizing impacts and protecting sensitive habitats; and establish requirements for project-level environmental review and mitigation for significant impacts to riparian, oak woodland, and other sensitive habitats. For example, Policies 16.A.6, 16.B.1, 16.B.4, 16.B.7, 16.B.9, 16.B.10, 16.C.1, 16.C.2, 16.C.3 and 16.C.5 address tree retention, open space conservation and encouraging development within identified communities, invasive species eradication, native species establishment, incentives for conserving sensitive habitats, and conservation of oak woodlands and preservation of heritage trees. Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts to biological resources and mitigate significant impacts to riparian, oak woodland, and other sensitive habitats.

Policy 16.B.5 also establishes the County's recommended guidelines for determining whether a loss of oak woodland would be significant at a project level or cumulatively. Policy 16.B.6 allows property owners to utilize the Tuolumne County Wildlife Handbook to assist in designing mitigation for impacts to biological resources, recognizing that mitigation requirements for projects may exceed the options presented in the Wildlife Handbook.

Although the amount of oak woodland conversion from projected development under the General Plan Update is expected to be a relatively small proportion of that available in Tuolumne County, the total acreage and quality of oak woodland ultimately affected is unknown and may be substantial. Without measures or guidelines identified to adequately mitigate a potentially substantial loss, degradation, or fragmentation of oak woodland, this impact is considered **potentially significant**.

## Mitigation Measures

For projects that may cause a significant loss of oak woodland, as defined in Policy 16.B.5 and Implementation Program 16.B.j, the following mitigation measure is recommended to reduce and compensate for significant impacts to oak woodland.

### Mitigation Measure 3.4-2: Implement Oak Woodland Mitigation Guidelines

The following new implementation programs shall be added under General Plan Policy 16.B.5:

**Implementation Program 16.B.x** [specific numbering to be provided in the Final General Plan Update]: When considering discretionary development proposals, the County, through CEQA reviews, will require that project applicants map oak woodland resources on the project site and, where feasible, establish buffers around existing oak woodland stands to prevent adverse effects. For mapping purposes, project applicants may use the County's existing oak woodland map (developed for the Recirculated Draft EIR) as an initial base map for project-specific ground-truthing/field verification. The County will require implementation of BMPs while working near retained oak woodlands to avoid inadvertent damage to oak trees. BMPs will include establishment of no-disturbance buffers around the outer canopy edge to prevent root and crown damage, soil compaction, and standard management practices to reduce introduction and spread of invasive species and other indirect effects.

For those impacts on oak woodland that cannot be avoided, the County will require the project applicant to minimize adverse effects. If substantial conversion of oak woodland will occur based on Implementation Program 16.B.j, the County will require one or more of the following mitigation measures be implemented to mitigate the impact from loss of oak woodland habitat pursuant to Public Resources Code Section 21083.4, (which specifies certain projects, including commercial agricultural production, are exempt from the requirements of Section 21083.4):

- ▲ Conserve oak woodlands through the purchase of conservation easements.
- ▲ Plant acorns and container stock from a local seed source to replace oak woodland removed. The following parameters will be applied:
  - Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
  - Maintain trees for seven years after the trees are planted.
  - Planting may not account for more than 50 percent of the required mitigation and must occur on lands that are subject to conservation easements, zoned open space, or similarly restricted from development.
  - Mitigation through planting may be used to restore former or degraded oak woodlands.

- ▲ Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodland conservation easements, the Tuolumne County Oak Woodland Conservation Fund, or other appropriate established oak woodland conservation fund.

**Implementation Program 16.B.x** [specific numbering to be provided in the Final General Plan Update]: The County will require project applicants to develop a mitigation and monitoring plan to compensate for the loss of oak woodland habitat. The mitigation and monitoring plan will describe in detail how loss of oak woodlands shall be avoided or offset, including details on restoration and creation of habitat, compensation for the temporal loss of habitat, success criteria ensuring habitat function goals and objectives are met, performance standards to ensure success, remedial actions if performance standards are not met, and requirements for reporting implementation actions and progress to the County. The plan will include detailed information on the habitats present within the preservation and mitigation areas, the long-term management and monitoring of these habitats, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment).

If planting is used as part of compensatory mitigation, an oak planting plan will be developed by a qualified professional such as a professional biologist, arborist, or registered professional forester using the best available science and will clearly state all mitigation measures required.

**Implementation Program 16.B.x** [specific numbering to be provided in the Final General Plan Update]: Oak woodlands habitat placed under conservation easements will be at appropriate ratios to offset the loss of habitat functions and values of the oak woodland to be lost. Oak woodland habitat preserved this way should have similar tree sizes and densities, species composition, site condition, and landscape context to the oak woodland to be removed to serve the same function and have similar habitat value. At a minimum, 1 acre of oak woodland habitat providing similar functions and values will be placed under conservation easement for every acre of oak woodlands habitat lost.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-2, in combination with existing state and federal regulations, the General Plan Update policies and implementation programs, Community Plan policies, existing Oak Woodlands Conservation Fund established by the County, and Tuolumne County Ordinance Code Chapter 9.24 (Premature Removal Of Native Oak Trees) would reduce impacts associated with projected development under the General Plan Update to riparian habitats, oak woodlands, and other sensitive communities. Specifically, implementation of Mitigation Measure 3.4-2 would ensure impacts to oak woodlands resulting from projected development under the General Plan Update are **less-than-significant** because it would require impact avoidance or minimization through feasible project design modification or mitigation at a ratio sufficient to offset the loss of oak woodland habitat function and values.

### **Impact 3.4-3: Loss or Degradation of Federally Protected Wetlands**

Projected development under the General Plan Update may result in the loss or degradation of federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, streams, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means. Through project-level environmental review and compliance with existing applicable federal and state regulations protecting wetlands and other waters of the United States, and implementation of applicable General Plan Update policies and implementation programs, this impact would be **less than significant**.

Under the General Plan Update, projected development is encouraged and directed to occur in the identified communities, including five Community Plan areas (Jamestown, Columbia, East Sonora, Tuolumne, and Mountain Springs). Because of the programmatic nature of the General Plan Update, a precise, project-level analysis of the specific impacts of individual projects on wetlands as defined by Section 404 of the CWA is not possible at this time and the level of analysis is maintained at the County level. Projected development under the General Plan Update would be incentivized in identified communities, which would generally

minimize or avoid the loss of wetlands. However, some wetlands, creeks, and rivers, are expected to occur in locations where development is allowed within or adjacent to natural habitats such as at community fringe areas or where creeks and rivers pass through identified communities.

The locations, extent, and severity of potential disturbances to wetlands is not known at this time; however, examples of potential impacts include, but are not limited to, development occurring in close proximity to waterways such as Woods Creek and Turnback Creek. Transportation and other infrastructure improvements that may occur to accommodate projected development in the County also have potential to impact wetlands, especially future proposed bridge projects. Indirect impacts caused by projected development under the General Plan Update could include degradation of water quality from increased erosion and sedimentation.

Although federally protected wetlands may be directly or indirectly affected, potential disturbances or loss as a result of projected development under the General Plan Update are expected to be limited and encouraged primarily within the identified communities. Compliance with existing state and federal regulations and permitting requirements during project-level environmental review would minimize the loss of wetlands and other waters of the United States during construction and provide habitat compensation for the unavoidable loss of wetland habitats through CWA Section 404 and Fish and Game Code Section 1600 et seq. permitting/review processes. These existing regulations require that compensation for unavoidable project-related losses or degradation of these sensitive habitats is achieved in a manner that results in no net loss. Therefore, the potential permanent loss or disturbance of wetlands and other waters of the United States as a result of projected development under the General Plan Update is not expected to be substantial.

In addition to compliance with existing federal and state laws protecting wetlands, the General Plan Update includes several policies and implementation programs intended to reduce potential impacts to wetlands and other sensitive habitats and require project-level environmental review and mitigation for significant effects (see "General Plan Update Policies," above). For example, Policies 16.A.6, 16.B.1, 16.B.2, 16.B.4, 16.B.7, 16.B.9, 16.B.10, 16.C.1, 16.C.2, 16.C.3, and 16.C.5 address vegetation retention, open space conservation and encouraging development within identified communities, invasive species eradication, native species establishment, incentives for conserving wetlands and other sensitive habitats, and conservation of oak woodlands and preservation of heritage trees. Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts and mitigate significant impacts to wetland habitats. Policy 16.B.6 allows property owners to utilize the Tuolumne County Wildlife Handbook to assist in designing mitigation for impacts to habitats, recognizing that mitigation requirements for projects may exceed the options presented in the Wildlife Handbook.

Development within five of the identified communities would be guided additionally by Community Plans, which include additional policies and implementation programs designed to minimize the disturbance or loss of wetlands and other habitats. For example, the Jamestown Community Plan includes the following implementation programs that would reduce potential impacts to wetlands within the Jamestown plan area.

- ▲ **Implementation Program 14.F.b:** Require Filtration of Surface Runoff Entering Woods Creek. Require as a condition of approval of discretionary entitlements for new development that surface runoff from the development be filtered through sedimentation basins, or similar devices, as needed, prior to discharge into downstream drainages to minimize degradation, related to the water quality and quantity, of downstream water bodies.
- ▲ **Implementation Program 14.F.c:** Limit Crossing of Waterways. Limit the number of road crossings of streams, creeks and other drainages and require the design of crossings to be perpendicular to Woods Creek and other drainages to minimize impacts of riparian habitat as a condition of approval of entitlements for new development.

- ▲ **Implementation Program 14.F.d:** Encourage Retaining Woods Creek in an Open Condition. Discourage, through the land development application review process, the culverting, piping or lining of Woods Creek by private entities unless no alternative is feasible. Where valuable riparian habitat is destroyed by such necessary action, alternate habitat improvements may be required on or off-site.
- ▲ **Implementation Program 14.F.e:** Habitat Conservation and Recreational Opportunities along Woods Creek. Require appropriate mitigation for impacts to biological resources from new development along Woods Creek and encourage the design of such new development to accommodate the provision of trails along the Creek for recreational opportunities. The future provision of easements and trails along Woods Creek shall not in any manner, authorize trespass upon private property, or increase the right of public agencies to gain access to private property unless expressly authorized by the property owner.

The Columbia Community Plan includes the following policy and implementation program that would reduce potential impacts to wetlands in the Columbia plan area.

- ▲ **Policy 15.E.4:** Encourage and support efforts to protect and enhance Woods Creek, Mormon Creek and the Dondero Trail for scenic and recreational values.
  - **Implementation Program 15.E.c:** Woods Creek and Mormon Creek. Require appropriate mitigation for impacts to biological resources from new development along Woods Creek and Mormon Creek and encourage the design of such development to accommodate the provision of non-motorized trails along the creeks for recreational opportunities. Encourage the dedication of public access easements to capitalize on the recreational opportunities of Mormon Creek and Woods Creek.

The East Sonora Community Plan includes the following policy and implementation programs that would reduce potential impacts to wetlands in the East Sonora plan area.

- ▲ **Policy 16.C.6:** Encourage and support voluntary efforts to protect and enhance Sullivan Creek, Elsey's Pool, Curtis Creek, Sonora Creek and associated riparian vegetation for scenic and recreational values.
  - **Implementation Program 16.C.d:** Require Filtration of Surface Runoff. Require as a condition of approval of discretionary entitlements for new development that surface runoff from that development be filtered through sedimentation basins, sand/oil separators or similar devices prior to discharge into Sullivan, Sonora and Curtis Creeks to minimize degradation of their waters.
  - **Implementation Program 16.C.e:** Limit Crossing of Waterways. Limit the number of road crossings of streams, creeks and other tributaries of Sullivan, Sonora and Curtis Creeks to minimize impacts of riparian habitat as a condition of approval of entitlements for new development.

The Tuolumne Community Plan includes the following policies and implementation program that would reduce potential impacts to wetlands in the Tuolumne plan area.

- ▲ **Policy 17.F.7:** Protect Turnback Creek and its watershed as a valuable educational, cultural, open space, recreational, wildlife corridor, and scenic resource.
- ▲ **Policy 17.F.9:** Discourage construction within floodplains.
  - **Implementation Program 17.F.h:** Retain Turnback Creek in an Open Condition. Discourage, through the land development application review process, the culverting, piping, or lining of Turnback Creek by private entities. Where valuable riparian habitat is destroyed by unavoidable actions, revegetation plans designed and monitored by qualified individuals should be undertaken.

### **Conclusion**

For the reasons discussed previously, potential disturbances or loss of wetlands as a result of projected development under the General Plan Update are expected to be limited because growth is encouraged

primarily within the identified communities. Additionally, compliance with existing state and federal regulations and permitting requirements during project-level environmental review would minimize the loss of wetlands and other waters of the United States during construction and provide habitat compensation for the unavoidable loss of wetland habitats through CWA Section 404 and Fish and Game Code Section 1600 et seq. permitting/review processes. These existing regulations require that compensation for unavoidable project-related losses or degradation of these sensitive habitats is achieved in a manner that results in no net loss. Therefore, the potential permanent loss or disturbance of wetlands and other waters of the United States as a result of projected development under the General Plan Update is not expected to be substantial.

In addition to compliance with existing regulations, Policy 16.B.5 and its implementation programs would require development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts to biological resources and mitigate significant impacts to wetlands. Additional policies and implementation programs are aimed at avoiding impacts to wetlands including creeks, and require development to filter run-off to maintain water quality. Compliance with existing federal and state regulations, and implementation of the General Plan Update policies and implementation programs to protect wetlands, particularly Policy 16.B.5, would ensure impacts to wetlands are **less than significant**.

### Mitigation Measures

No mitigation is required.

### Impact 3.4-4: Disturbance or Loss of Animal Movement Corridors

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Projected development under the General Plan Update may interfere with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors. This impact would be **less than significant**.

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Under the General Plan Update, the land use diagram and policy framework encourage projected development to occur in identified communities, including five Community Plan areas (Jamestown, Columbia, East Sonora, Tuolumne, and Mountain Springs). Because of the programmatic nature of the General Plan Update, a precise, project-level analysis of the specific impacts of individual projects on wildlife movement is not possible at this time and the level of analysis is maintained at the County level. As discussed in Section 3.4.1, the County contains ECAs and linkage areas that were identified as important landscape blocks that are integral in maintaining connectivity on a regional level. As projected development under the General Plan Update occurs, the quality of habitat within and around new development would be expected to lower in value to wildlife and some fragmentation of the landscape may occur, especially in areas along the community fringe where interruption to natural habitat caused by projected development may limit or obstruct wildlife movement. Development of parcels within identified communities is not likely to substantially affect wildlife movement unless the parcels contain a feature, such as a creek or drainage, that facilitates important movement within the developed area and would be removed or degraded. Corridors for movement such as riparian areas, drainages and other natural features become increasingly important for exchange of individuals and subsequently genetic material between wildlife populations. In addition, as projected development further encroaches upon wildlife habitat, increases in human activity in areas where sensitive biological resources could occur would be expected.

Direct impacts to wildlife include incremental fragmentation of the landscape, disturbance from increased noise and human presence, as well as increased trash, which may attract predators and discourage wildlife use of surrounding natural habitat. Indirect impacts include invasion of natural habitats by non-native species and increased presence of humans and domestic animals over the long-term. In addition, projected development could include segments of fencing, walls or other structures that would hinder wildlife movement.

Although animal movement corridors may be directly or indirectly affected, potential disturbances or loss as a result of projected development under the General Plan Update are expected to be limited and encouraged primarily within the identified communities. Nearly all of the ECAs and linkage areas that were identified as important landscape blocks in Tuolumne County are located away from the identified communities (see Appendix B). Additionally, the General Plan Update includes several policies and implementation programs intended to reduce potential impacts to open space and require project-level environmental review and mitigation for significant effects on wildlife movement (see “General Plan Update Policies,” above). For example, Policies 16.A.6, 16.B.1, 16.B.2, 16.B.4, 16.B.7, 16.B.9, 16.B.10, 16.C.1, 16.C.2, 16.C.3, and 16.C.5 address tree retention, conservation of wildlife corridors and encouraging development within identified communities, invasive species eradication, native species establishment, incentives for conserving important biological areas, and conservation of oak woodlands and preservation of heritage trees. Policy 16.B.5 requires development that is subject to a discretionary entitlement from the County and to environmental review under CEQA to evaluate potential impacts and mitigate significant impacts to animal movement. Policy 16.B.6 allows property owners to utilize the Tuolumne County Wildlife Handbook to assist in designing mitigation for impacts to biological resources, recognizing that mitigation requirements for projects may exceed the options presented in the Wildlife Handbook.

Because projected development under the General Plan Update would be limited and encouraged primarily within or adjacent to identified communities and outside of ECAs, and with implementation of the applicable General Plan Update policies and implementation programs, particularly Policy 16.B.5, impacts to animal movement and corridors would be **less than significant**.

### Mitigation Measures

No mitigation is required.

### Impact 3.4-5: Potential Conflict with Local Policies or Ordinances Protecting Biological Resources

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Projected development under the General Plan Update would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be **less than significant**.

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Tuolumne County Ordinance Code Chapter 9.24 (Premature Removal Of Native Oak Trees) stipulates that the removal of native oak trees from a project site within the five (5) years preceding the submittal of an application for a discretionary entitlement from the County for a land development project on that site is deemed premature removal and sets forth penalties and requirements for mitigation.

Chapter 9.24 specifies that removals that qualify include:

- a. Removal of native oak trees resulting in a 10 percent or more (>10 percent) average decrease in native oak canopy cover within an oak woodland;
- b. Removal of any old growth oak trees, defined as any native oak tree that is 24” or greater dbh;
- c. Removal of any Valley Oak measuring 5” or greater dbh.

While some oak trees could be damaged or removed by projected development under the General Plan Update, the scope of premature removals cannot be anticipated based on the programmatic level of analysis of this Recirculated Draft EIR. Nevertheless, because it is reasonable to assume that applicants for projects requiring discretionary entitlement will abide by the restrictions in and implement mitigation based on Chapter 9.24 of the County Ordinance Code, projected development under the General Plan Update is not expected to conflict with Chapter 9.24. In addition, the County Oak Woodland Preservation Fund was established for the collection of fees to mitigate impacts to oak woodlands and net loss of old growth oaks. No conflicts with this Fund are expected from projected development under the General Plan Update. Therefore, impacts related to

potential conflicts with local policies or ordinances protecting biological resources would be **less than significant**.

### **Mitigation Measures**

No mitigation is required.

### **Impact 3.4-6: Potential Conflict with an Adopted Conservation Plan**

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Projected development under the General Plan Update would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There are no adopted local, regional, or state habitat conservation plans in Tuolumne County. Therefore, there would be **no impact**.

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No Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan has been adopted or approved in Tuolumne County. Therefore, projected development under the General Plan Update would result in **no impact** related to conflicts with existing local, regional, or state conservation plans.

### **Mitigation Measures**

No mitigation is required.