INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

PROJECT INFORMATION

1. Project Title: Butte County Routine Maintenance Agreement

2. Lead Agency Name and Address: Butte County
   Department of Public Works
   7 County Center Drive
   Oroville, CA 95965

3. Contact Person and Phone Number: Sam Cromwell, Assistant Engineer, Public Works
   (530) 552-5746; scromwell@buttecounty.net

4. Project Location: The project area encompasses all creeks, basins, waterways, and associated riparian corridors and floodplains under California Department of Fish and Wildlife (CDFW) jurisdiction within 200 feet of County-maintained roads within Butte County, California (Figure 1. Project Location; Figure 2. Project Area).

5. Project Sponsor's Name and Address: N/A

6. General Plan Designation: N/A

7. Zoning: N/A

8. Description of Project:

   Butte County (County) proposes to enter a 12-year (17 year with optional 5-year extension) Streambed Alteration Agreement with CDFW for the ongoing implementation of routine maintenance activities within jurisdictional improved and unimproved stream channels and drainage facilities, and their associated CDFW jurisdictional areas within 200 feet of County-maintained roads. For the purposes of this Routine Maintenance Agreement (RMA), the County considers the limits of CDFW jurisdiction to extend from the center of any channel to the edge of riparian zones along creeks and the outer edges of wetland vegetation within basins and wetlands. Exact limits of CDFW jurisdiction will be determined on a case-by-case basis in consultation with CDFW.

   The County anticipates completing approximately 20 to 30 maintenance projects a year over the 12-year life of the RMA. Routine maintenance would involve the use of various types of equipment including pickup trucks, hand tools (such as chainsaws, string trimmers, loppers, shovels, rakes) and may occasionally require heavy duty construction equipment, including, but not limited to backhoes, excavators, loaders, skid steers, haul trucks, and compactors. Exact methods, locations, and extent of maintenance activities would be submitted to CDFW for final approval through the Verification Request Form (VRF) process. Depending on extent and location, any given VRF

maintenance project may take between 1 day and 3 months to complete. Maintenance activities will include removal, replacement, or repair of facilities; channel alignment maintenance; conversion of concrete-lined channels; debris or obstruction removal; silt, sand, or sediment removal; vegetation control in channel or on banks; goat/sheep grazing; minor erosion control work; repair of previous erosion control work; bridge washing, graffiti removal, and painting; water diversions; and geotechnical sampling and subsurface cultural resource sensitivity testing.

Removal, Replacement or Repair of Facilities

The County would remove, replace, or repair culverts, inlets, manholes, above ground utilities, or other facilities within areas of CDFW jurisdiction. This includes minor repairs to bridge structures, including rock slope protection, bridge abutments or bridge decks, but not replacement of structural components. Removal or replacement of facilities may require the trimming or removal of vegetation, displacement of sediments and/or placement of materials within creeks, channels and basins, manhole lining, flushing, vactoring, Closed Circuit Television inspections, horizontal directional drilling, jack and bore, electric pole removal/replacement, and open trenching. Exact methods and locations of removal, replacement or repair activities would be submitted to CDFW for final approval through VRFs. If a facility would require a large-scale repair and CDFW determines that the activity is not covered under the RMA, individual permits will be secured for the proposed activity.

Channel Alignment Maintenance

At locations where County facilities are at risk, the County would maintain the current channel alignments to prevent creeks and drainages from altering course during large storm events. Activities may include the strategic addition of rock slope protection armoring, removal of sediment, and revegetation with native plants to maintain the current creek alignment. Exact methods and locations of channel alignment maintenance activities would be submitted to CDFW for final approval through VRFs.

Conversion of Concrete-Lined Channels

The County may undertake projects to convert existing concrete-lined channels to a more natural state. Exact methods and locations of channel alignment maintenance activities would be submitted to CDFW for final approval through VRFs.

Debris or Obstruction Removal

The County would remove debris, trash, rubbish, beaver dams, flood-deposited woody and herbaceous vegetation, downed trees, dead trees which are in danger of falling in or across a channel, branches, and associated debris that substantially obstruct water flow, reduce channel capacity, cause pump damage, accelerate erosion, damage concrete box culverts, metal culverts, or bridge structures, or have the potential to. The County proposes debris and obstruction removal in creeks, channels, and detention basins. Exact methods and locations of debris or obstruction removal activities would be submitted to CDFW for final approval through VRFs. Debris or obstruction removal may be followed by re-vegetation efforts.

Silt, Sand or Sediment Removal

The County would displace or remove (under dry conditions) silt, sand, gravel, or sediment in the immediate vicinity (i.e., within 250 feet) of natural or man-made structures and facilities, both lined and unlined, that could substantially obstruct water flow, reduce channel capacity, accelerate erosion, damage concrete box culverts, metal culverts, bridge structures, or other facilities. Such structures or facilities could include outfalls, bridges, culverts, beaver dams, basins, and the invert of creeks and channels. Exact methods and locations of sediment removal activities would be submitted to CDFW for final approval through VRFs. Removal of silt, sand, or other sediments may be followed by re-vegetation efforts.

Vegetation Control in Channels or on Banks

The County would cut, mow, disc, or bulldoze on grasses, shrubs, and woody growth to maintain the designed capacity of floodways and conducting safety inspections. However, the County anticipates vegetation control equipment to largely be comprised of chainsaws and other hand tools, with the occasional use of a backhoe. The County would cut, trim, or remove the lower branches of large trees to facilitate site inspections and maintain channel capacity. The County would remove dead trees, dying trees, and new trees less than 4-inches diameter at breast height (dbh; diameter measured 4.5 feet above ground level) to maintain channel capacity and prevent erosion. The County would remove non-native vegetation (including but not limited to giant reed (*Arundo donax)*, cheatgrass (*Bromus tectorum*), yellow starthistle (*Centaurea solstitialis*), pampasgrass *(Cortaderia selloana*), Scotch broom (*Cytisus scoparius*), medusahead (*Elymus caput-medusae*), English ivy (*Hedera helix*), perennial pepperweed (*Lepidium latifolium*), and Himalayan blackberry (*Rubus armeniacus*)) to maintain channel capacity and improve native habitat. The County would not remove sensitive plant populations without CDFW approval. In addition, the County would not remove or trim any elderberry shrubs prior to consultation with the United States Fish and Wildlife Service (USFWS). Exact methods and locations of vegetation removal activities would be submitted to CDFW for final approval through VRFs.

Goat Grazing

The County may contract for goat grazing services to aid in thatch management, fuel reduction and invasive species removal tasks. This would involve a herd of approximately 500 goats and temporary low voltage electric fencing to contain the herd to a defined paddock. Herds would be left in a paddock for a period of 12-36 hours depending on vegetation density and the desired amount of vegetation removal and would then be moved to the next area.

Goats would not be permitted within the bed bank or channel of stream channels but would be permitted in adjacent riparian areas under CDFW jurisdiction. Goat grazing is typically conducted on steep slopes and other areas where access is limited. Areas grazed by the goats with a high risk of erosion may be reseeded with native plants or stabilized with general storm water best management practices (BMPs) to manage soil erosion in critical areas such as outfalls. Goat grazing may be necessary to maintain storm flow capacity, reduce thatch level/fire load, and control invasive species in areas where worker/equipment access would be difficult.

Minor Erosion Control Work

The County would slope, place earthen fill, install rocks and gabions, apply gunite, or take other necessary measures to control erosion on previously unrevetted areas. The County may use bioengineering methods where feasible to reduce creek bank erosion. Such work would not exceed 100 linear feet in length of the unrevetted area. Containment measures would be used to prevent deleterious material from entering state waters and avoid adverse impacts to fish and wildlife resources. Exact methods and locations of minor erosion control activities would be submitted to CDFW for final approval through VRFs.

Repair of Previous Erosion Control Work

The County would repair previous erosion control work, including, but not limited to, failed rock slope protection, sacked concrete, or gabion sections. Such work would not extend beyond 100 linear feet of the existing revetted area. In some areas these activities and other routine maintenance activities may require fill near outfalls, bridges, culverts, basins, and the invert of creeks and channels. Types of fill materials could include riprap, soil, gravel material, or aggregate base and would come from commercial sources in the local area. The County may also employ bioengineering methods where feasible to repair or enhance previously installed erosion control work. Materials would be placed with equipment such as an excavator, backhoe, dump truck, bobcat, skip loader, front loader, or other small construction equipment. Exact methods, locations and volumes of erosion repair activities would be submitted to CDFW for final approval through VRFs.

Bridge Washing, Graffiti Removal and Painting

When work is required to occur within creek channels, the County would clean, wash, and paint structures within a stream zone. Containment measures would be used to prevent deleterious material from entering state waters and avoid adverse impacts to fish and wildlife resources.

Water Diversions

To minimize sedimentary effects to the channels and waterways, temporary water diversions would be utilized as necessary to prevent surface water from entering maintenance work areas. Dewatering is anticipated to occur at some locations. Diversion and dewatering plans specific to the individual routine maintenance would be submitted to CDFW for final approval through VRFs.

Geotechnical Sampling and Subsurface Cultural Resource Sensitivity Testing

The County would obtain core samples and conduct other minor geotechnical and/or cultural resources investigations as part of advancing project foundation design and/or testing for sub surface cultural resource sensitivity. Geotechnical investigations would involve a truck or track mounted drill rig and a crew of two or three drill operators and one geologist. The drill rig would be used to obtain 3- or 4-inch diameter core samples in order to determine the nature of underlying sediments and bedrock to a depth determined by the onsite geologist during drilling (typically 20-80 feet). After drilling is complete, the hole will be filled with either bentonite clay (weathered volcanic ash) or mortar (low aggregate concrete) to prevent groundwater contamination.

Positioning of the drill rig may require vegetation trimming to access the site. Impacts associated with site access and vegetation trimming will be quantified and included in the VRF submitted for the work. Drill rigs would be positioned over secondary containment to prevent fuel or hydraulic leaks from contaminating soils. Secondary containment will consist of visqueen or similar plastic sheeting. The edges of secondary containment will be elevated to prevent leaks from running off the plastic sheeting.

Cultural resource subsurface sensitivity investigations, commonly known as an Extended Phase 1 (XPI), may be required for non-RMA projects or activities to better determine a site's cultural resource sensitivity. XPIs typically involve shovel probe excavation of approximately 1.5 by 1.5 feet to a depth of 3 feet and/or use of handheld augers to access deeper (up to 6 feet) older soil horizons. After excavated materials are screened for potential artifacts, temporary test pits or auger holes are backfilled, and the surface restored.

Anticipated Fill Quantities Per Project

In some areas, the maintenance activities listed above would require fill near outfalls, bridges, culverts, basins, and the invert of creeks and channels. Types of fill material is anticipated to include riprap, soil, gravel material, aggregate base all from commercial sources in the local area. Fill material would be placed by excavator, backhoe, dump truck, bobcat, skip loader, front loader, or other small construction equipment. The following calculations are estimates intended to provide quantities of area and volume that would be placed over a 12-year period (Table 1. Summary of Fills). Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs.

Table 1. Summary of Fills

Location of Fills	Anticipated Fill over 12 Years (cubic yards)
Outfall Fills	929
Bridge/Culvert Fills	188.9
Invert of Channel/Basin Fills	373.4
Total	1,491.3

The following table provides an estimate of the number of fill projects that will be completed in an average year and provides an estimate of typical dimensions for fill projects (Table 2. Estimated Fill Project Dimensions). The number of projects anticipated to be completed annually was generated based on previous years of maintenance within the County. If extreme weather events occur, the anticipated number of projects per year may be exceeded. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs.

Table 2. Estimated Fill Project Dimensions

Project Type	Number of Projects per Year	Project Dimensions		
		Surface Area (square feet)	Fill Depth (feet)	Fill Volume (cubic yards)
Outfall Fills				
Small Project	5	16	1	0.6
Large Project	5	2,500	2	185.2
Bridge/Culvert Fills				
Small Project	1	100	1	3.7
Large Project	1	2,500	2	185.2
Invert of Channel/Basin Fills				
Small Project	1	40	2	3
Large Project	1	5,000	2	370.4

Anticipated Sediment Removal Quantities Per Project

Routine maintenance activities would also require displacement (under dry conditions) and removal of silt and/or organic matter near outfalls, bridges, culverts, beaver dams, basins, and the invert of creeks and channels. Excavation would generally be by small excavator, backhoe, or hand tools. The following quantities are estimates of sediment removal over a 12-year period and include approximate quantities of area and volume for typical small and large occurrences (Table 3. Summary of Sediment Removals). Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs.

Table 3. Summary of Sediment Removals

Location of Sediment Removal	Anticipated Sediment Removal over 12 Years (cubic yards)
Outfall Fills	1,854.4
Bridge/Culvert Fills	466.7
Invert of Channel/Basin Fills	1,393.5
Total	3,714.6

The following table provides an estimate of the number of sediment removal projects that will be completed in an average year and provides an estimate of typical dimensions for sediment removal projects (Table 4. Estimated Sediment Removal Project Dimensions). The number of projects anticipated to be completed annually was generated based on anticipated future projects and previous years of maintenance within the County. If extreme weather events occur, the anticipated number of projects per year may be exceeded. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs.

Table 4. Estimated Sediment Removal Project Dimensions

Project Type	Number of Projects per Year	Project Dimensions		
		Surface Area (square feet)	Excavation Depth (feet)	Excavation Volume (cubic yards)
Outfall Sediment Removal				
Small Project	4	16	1	0.6
Large Project	4	6,250	2	463
Bridge/Culvert Sediment Removal				
Small Project	1	100	1	3.7
Large Project	1	6,250	2	463
Invert of Channel/Basin Sediment Removal				
Small Project	3	40	1	1.5
Large Project	3	6,250	2	463

Anticipated Impacts to CDFW Jurisdictional Habitat

Based on the anticipated number of maintenance projects to be completed annually over the 12-year life of the RMA, the County estimates the impacts to CDFW jurisdictional habitat in the following table (Table 5. Estimated Impacts to CDFW Jurisdictional Habitat).

Table 5. Estimated Impacts to CDFW Jurisdictional Habitat

CDFW Jurisdictional Habitat Type	Estimated Annual Temporary Impacts (acres)	Total[1] Estimated Temporary Impacts (acres)	Estimated Annual Permanent Impacts (acres)	Total[1] Estimated Permanent Impact (acres)
Stream Channel/Aquatic Habitat	1.5	18.0	0.8	9.6
Riparian Habitat	1.5	18.0	0.8	9.6

[1]Over the 12-year life of the RMA.

Potential Mitigation Alternatives for Impacts

For routine maintenance projects that would have temporary or permanent impacts to jurisdictional features, the County may purchase mitigation credits at a CDFW approved mitigation bank. Purchase of mitigation credits would be determined on a case-by-case basis and in coordination with CDFW. In addition, the following tasks may be implemented as compensatory mitigation for temporary or permanent impacts associated with routine maintenance tasks in lieu of mitigation credit purchase.

Invasive Species Removal

The County would remove non-native vegetation (e.g., giant reed, cheatgrass, yellow starthistle, pampasgrass, Scotch broom, medusahead, English ivy, perennial pepperweed, Himalayan blackberry) and install native vegetation either by applying a native seed mix or installing container plants.

Creek Restoration and Erosion Repair Projects

The County would restore locations with existing bank erosion or scour problems to improve riparian habitat value and water quality. Potential restoration locations would be determined in coordination with CDFW and detailed in a Habitat Mitigation and Monitoring Plan (HMMP) submitted to CDFW for review within 180 days following the adoption of the RMA.

Restoration activities would likely involve the following steps: removal of non-native vegetation; re-grading eroded, scoured, or undercut portions of the creek to more stable and natural topography; and bio-stabilization of the restoration area to prevent future erosion.

Bio-stabilization would involve installing biodegradable geotextile fabric (e.g. coconut coir erosion control blankets, fibers rolls) and native riparian vegetation to stabilize the restoration area and provide long term riparian habitat. Areas at or below the Ordinary High Water Mark (OHWM) may be stabilized with a combination of biodegradable geotextile fabric and fast growing native species. Banks and floodplains would be planted with riparian trees and shrubs typical to the region. Herbaceous understory may be added to the restoration site above the OHWM either by installing plugs or broadcasting a seed mix.

Conversion of Concrete-Lined Channels

Removal of concrete lining from channels would entail removing concrete lining, restoring the channel to natural, self-sustaining topography, and revegetating the banks with site appropriate native riparian vegetation. The County may undertake projects to convert existing concrete-lined channels to a more natural state to improve water quality, improve aesthetic values, or provide compensatory mitigation for permanent impacts associated with routine maintenance activities.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

Butte County is approximately 1,680 square miles (1,073,000 acres) in area. There are five incorporated municipalities within the County: the Cities of Chico, Oroville, Gridley, and Biggs, and the Town of Paradise. In addition, there are thirty-seven unincorporated communities scattered throughout the County. Agriculture is the dominant land use within the County and makes up approximately 60% of the County's area. Fifteen percent of the County's area is composed of public/quasi-public lands, including parcels owned by federal, State, County, and otherwise public agencies. Some of this land includes the Lassen National Forest, the Plumas National Forest, and the Gray Lodge Wildlife Area operated by CDFW (Figure 3. Public Agency Jurisdictions within Butte County). There are also two tribal reserves in the County located near the City of Oroville: the Gold Country Casino operated by the Tyme Maidu of Berry-Creek Rancheria and the Feather Falls Casino and tribal reserve lands operated by the Concow Maidu of Mooretown Rancheria.

Routine maintenance activities would take place within creeks, improved and unimproved drainage channels, detention basins and constructed water quality swales, associated riparian vegetation, and low floodplains throughout the County. The RMA would cover all areas of CDFW jurisdiction with County limits. The creeks, drainages, and other major water features located within the County's existing boundaries that could require maintenance include, but are not limited to: Sacramento River, Pine Creek, Rock Creek, Mud Creek, Angel Slough, Little Dry Creek, Big Chico Creek, Little Chico Creek, Butte Creek, Dry Creek, Feather River, West Branch Feather River, North Fork Feather River, Middle Fork Feather River, Fall River, South Fork Feather River, Honcut Creek, Thermalito Afterbay, and Lake Oroville (Figure 2). In addition, multiple minor streams, tributaries, and unnamed drainage ditches, canals, drainage swales, detention basins and overland relief within the County limits could undergo routine maintenance.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

- CDFW (Section 1602 RMA);
- United States Army Corps of Engineers (USACE; for routine maintenance activities within USACE jurisdiction, a Section 404 Nationwide Permit 3 is authorized (contingent on meeting permit conditions). If a project exceeds Nationwide Permit 3 permit conditions, the County may need to notify USACE);
- Central Valley Regional Water Quality Control Board (if a project is required to notify USACE, a Section 401 Clean Water Certification may be required);
- Butte County Public Works Department
- Bureau of Land Management
- United States Forest Service
- California Department of Water Resources (for activities associated with Lake Oroville and associated facilities)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On November 17, 2022, initial consultation letters were sent to the Native American Tribes on the list provided by the Native American Heritage Commission. Responses were received from the Konkow Valley Band of Maidu and the Mooretown Rancheria. Measures have been developed to continue coordination with Native American Tribes as well as for development of an Indigenous Resource Notification Protocol and Treatment Plan (Plan), awareness training, monitoring, and site reseeding. See Section 1.18 for a complete discussion.

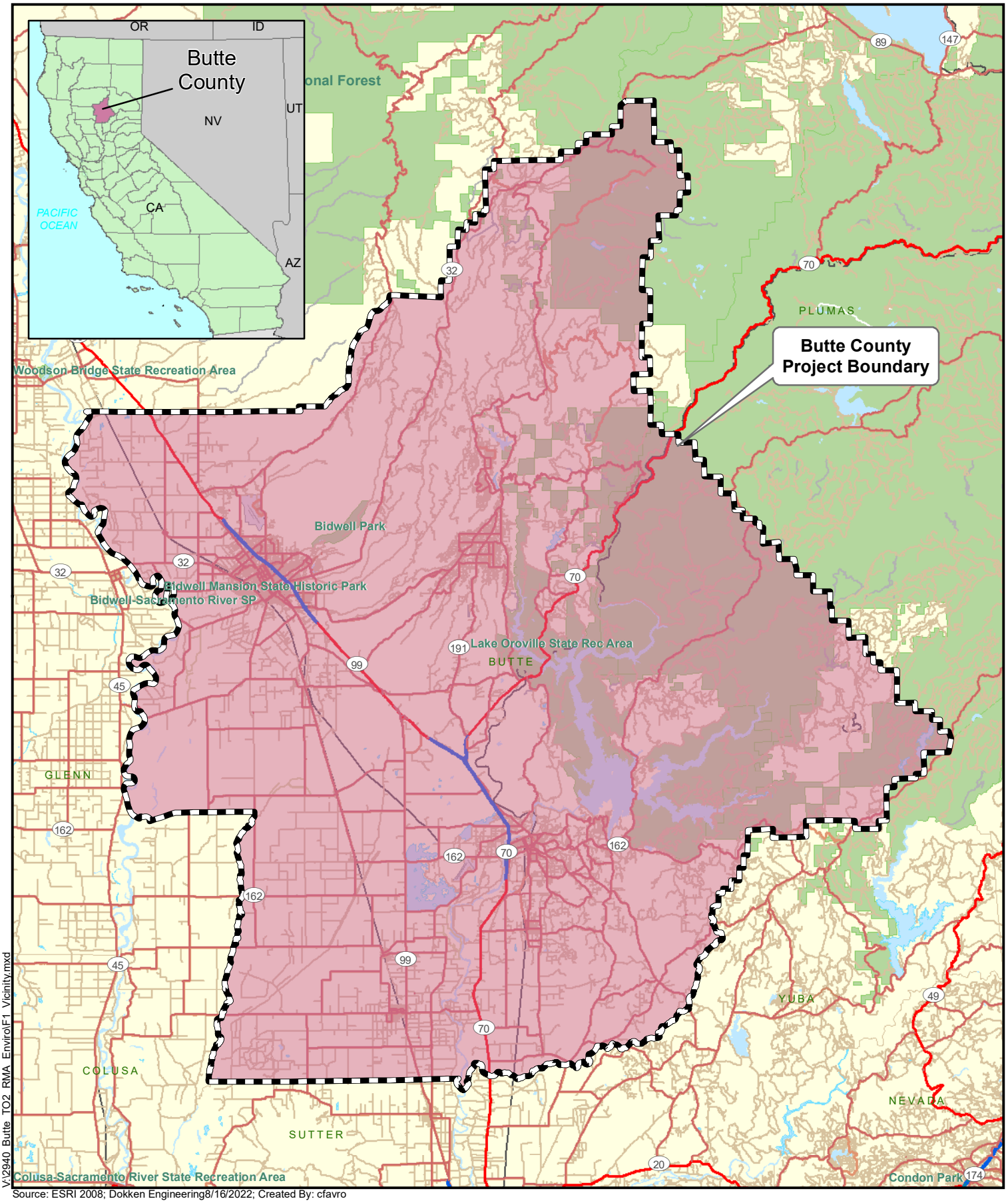

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FIGURE 1
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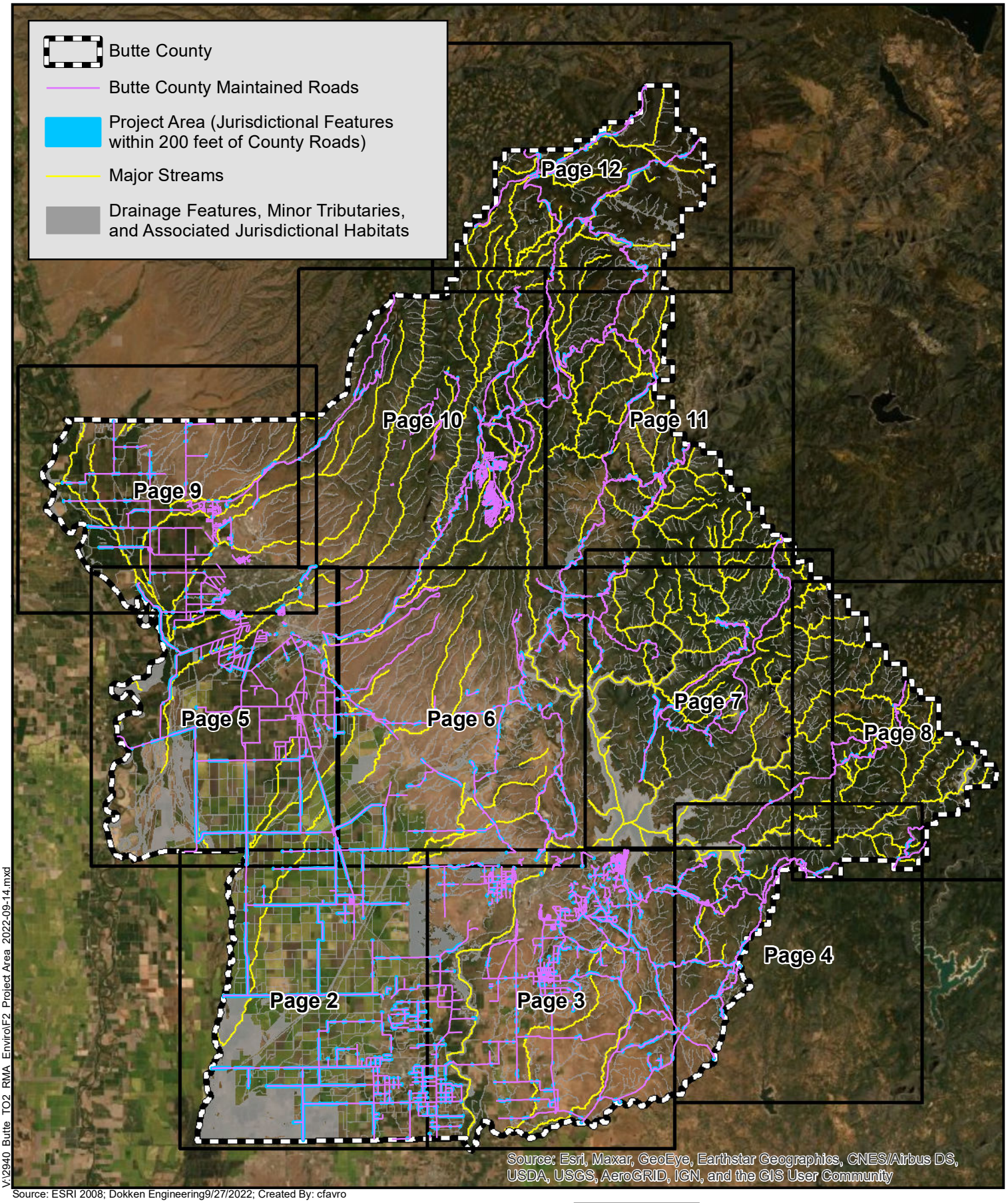
Butte County, California



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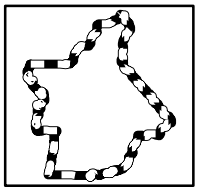

FIGURE 2
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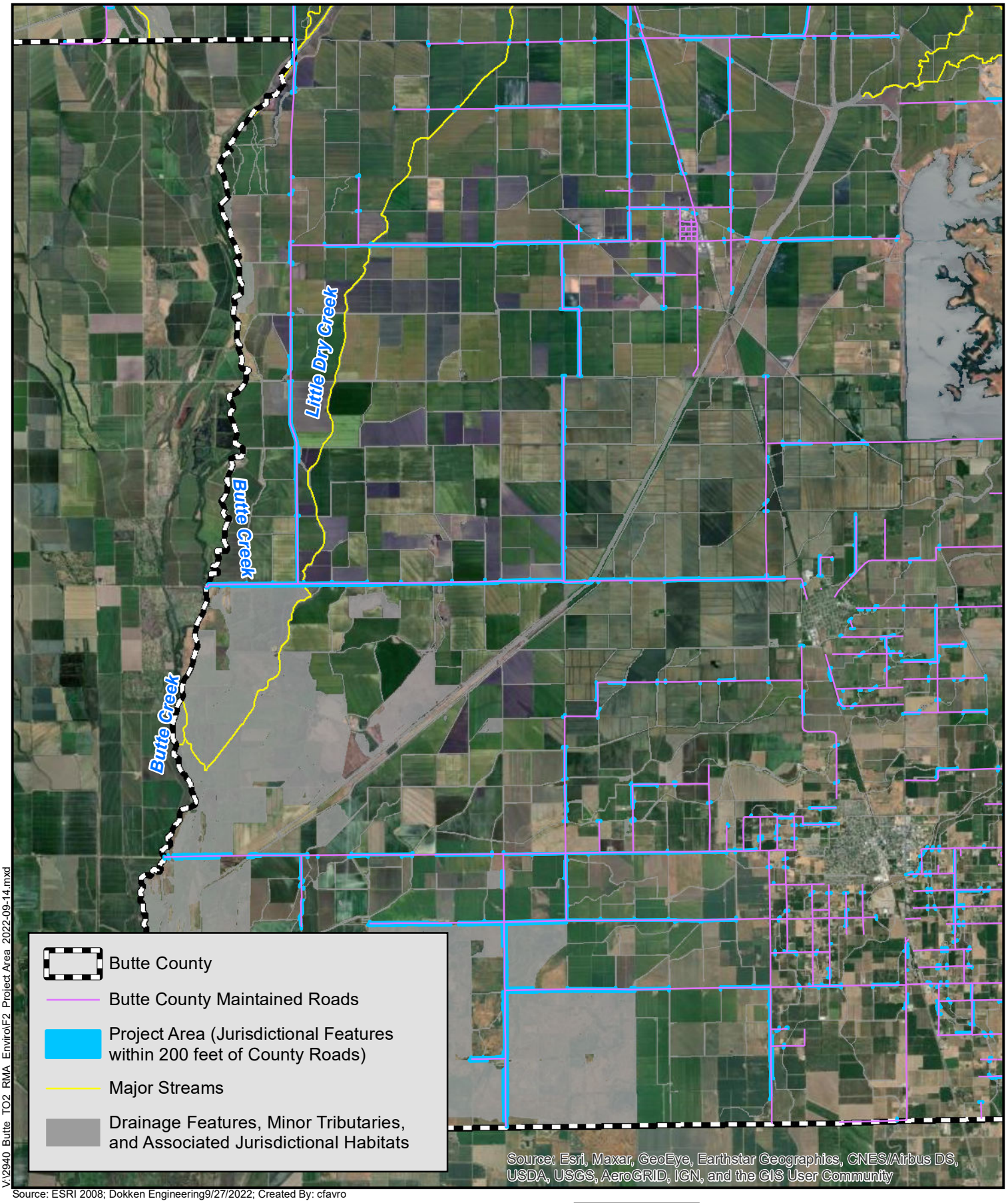
Butte County Routine Maintenance Agreement
Butte County, California



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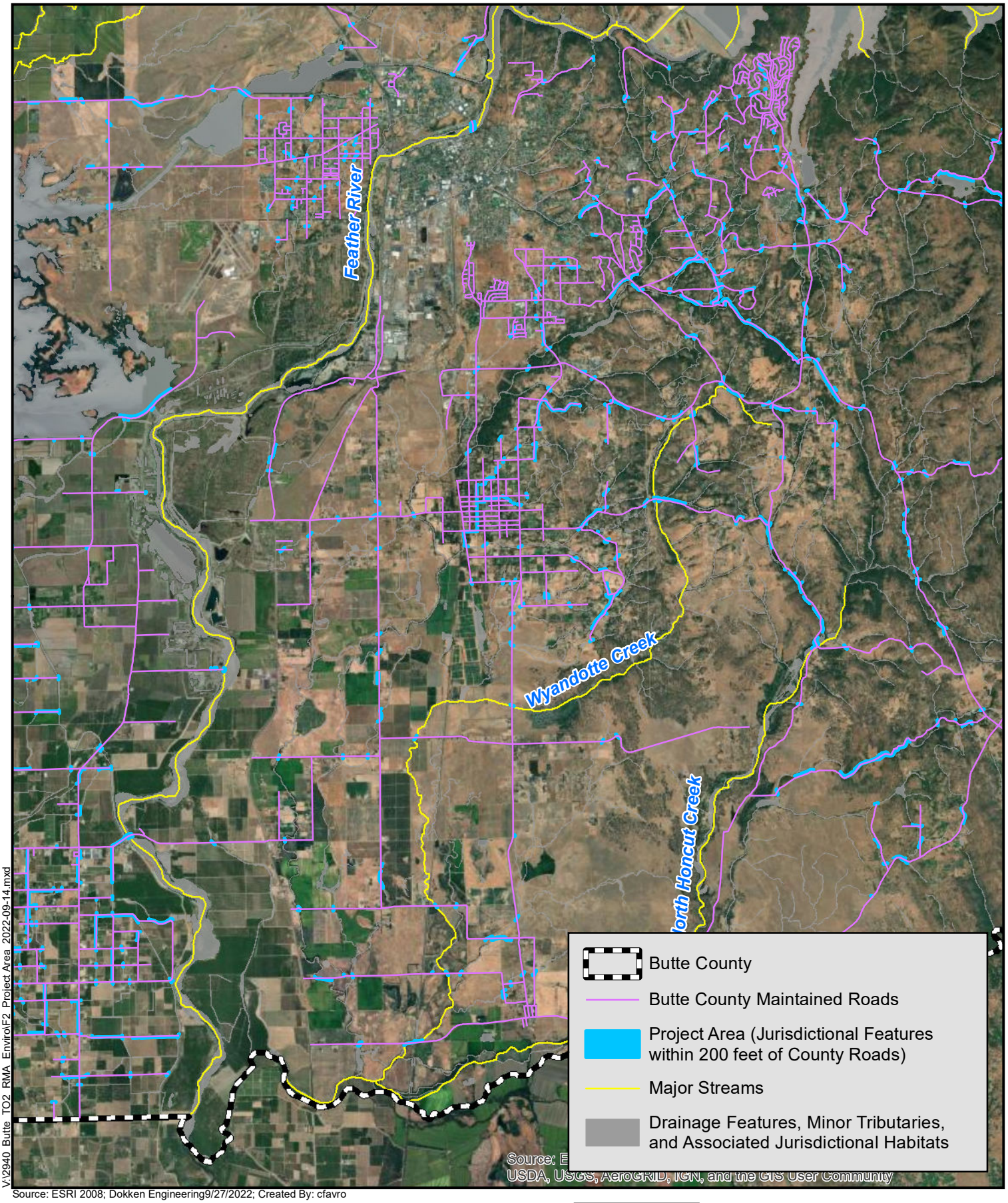

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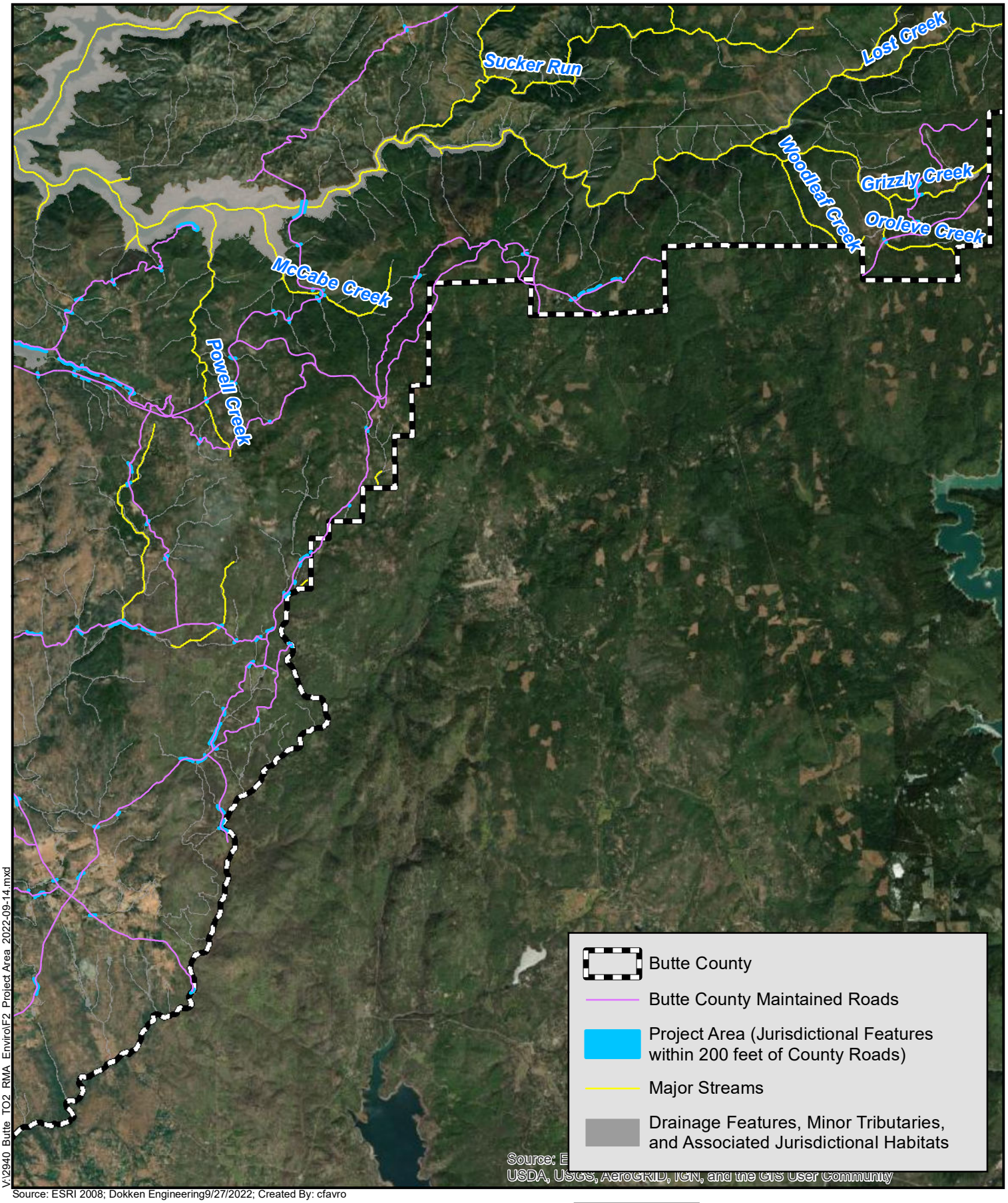

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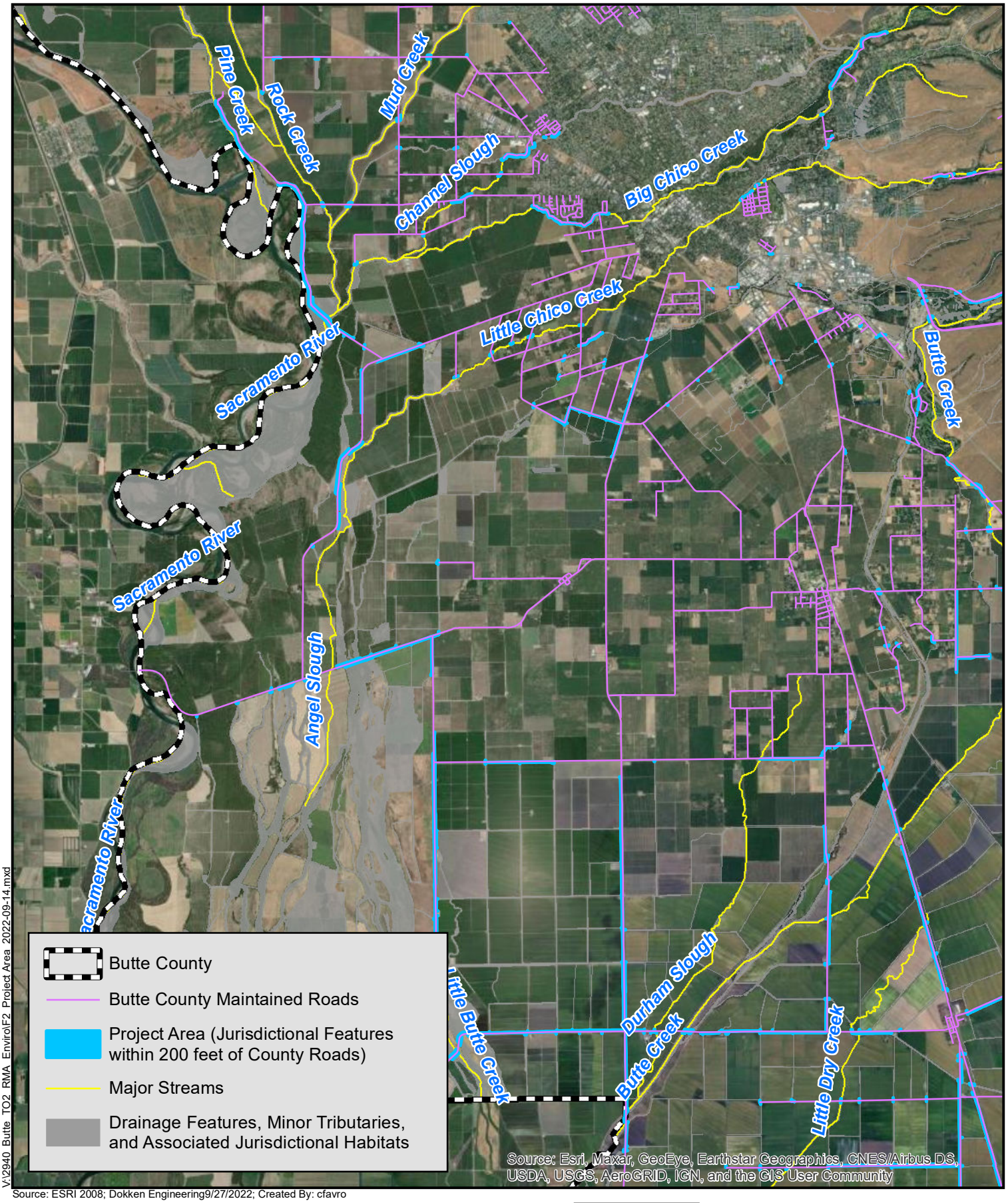

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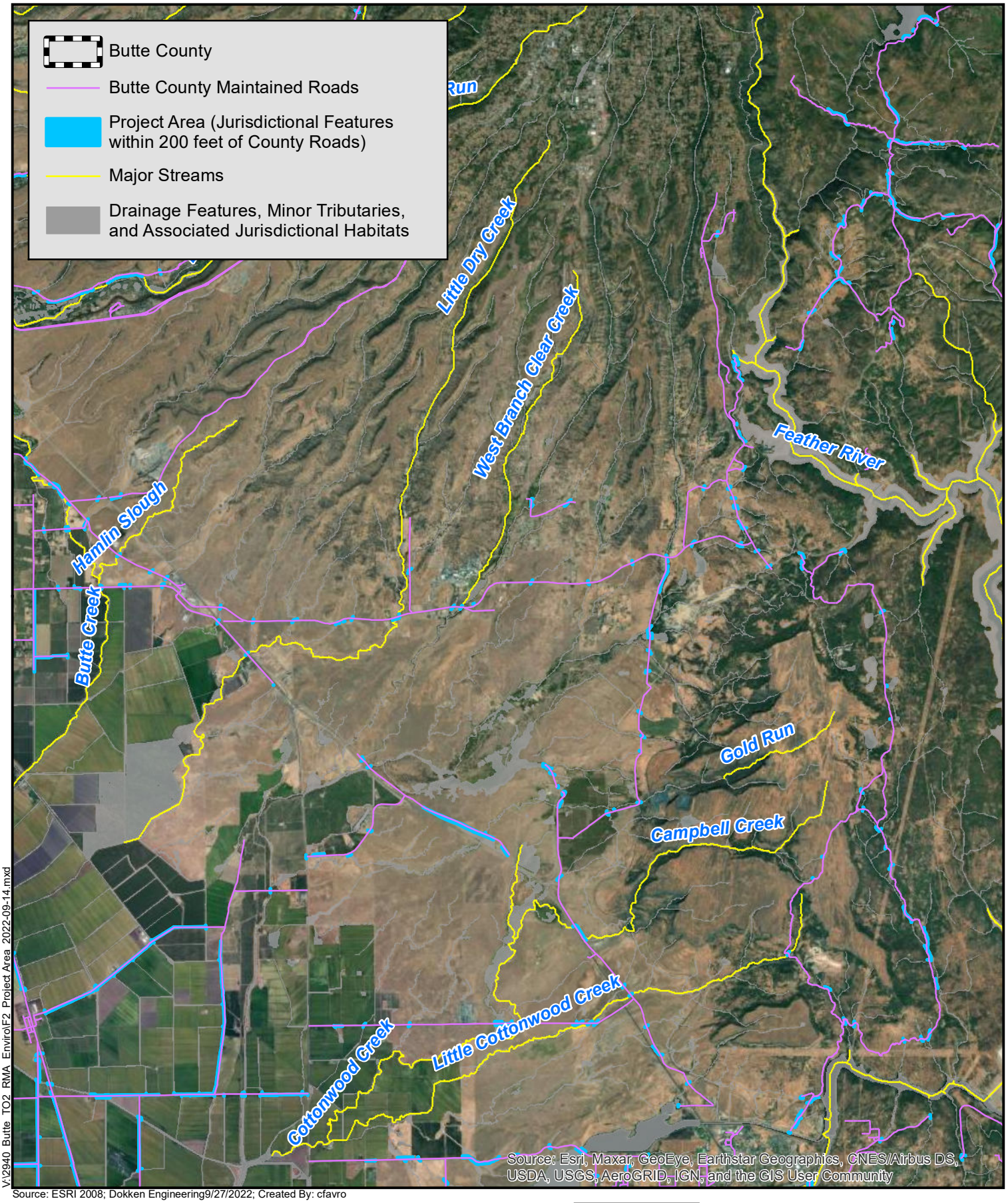

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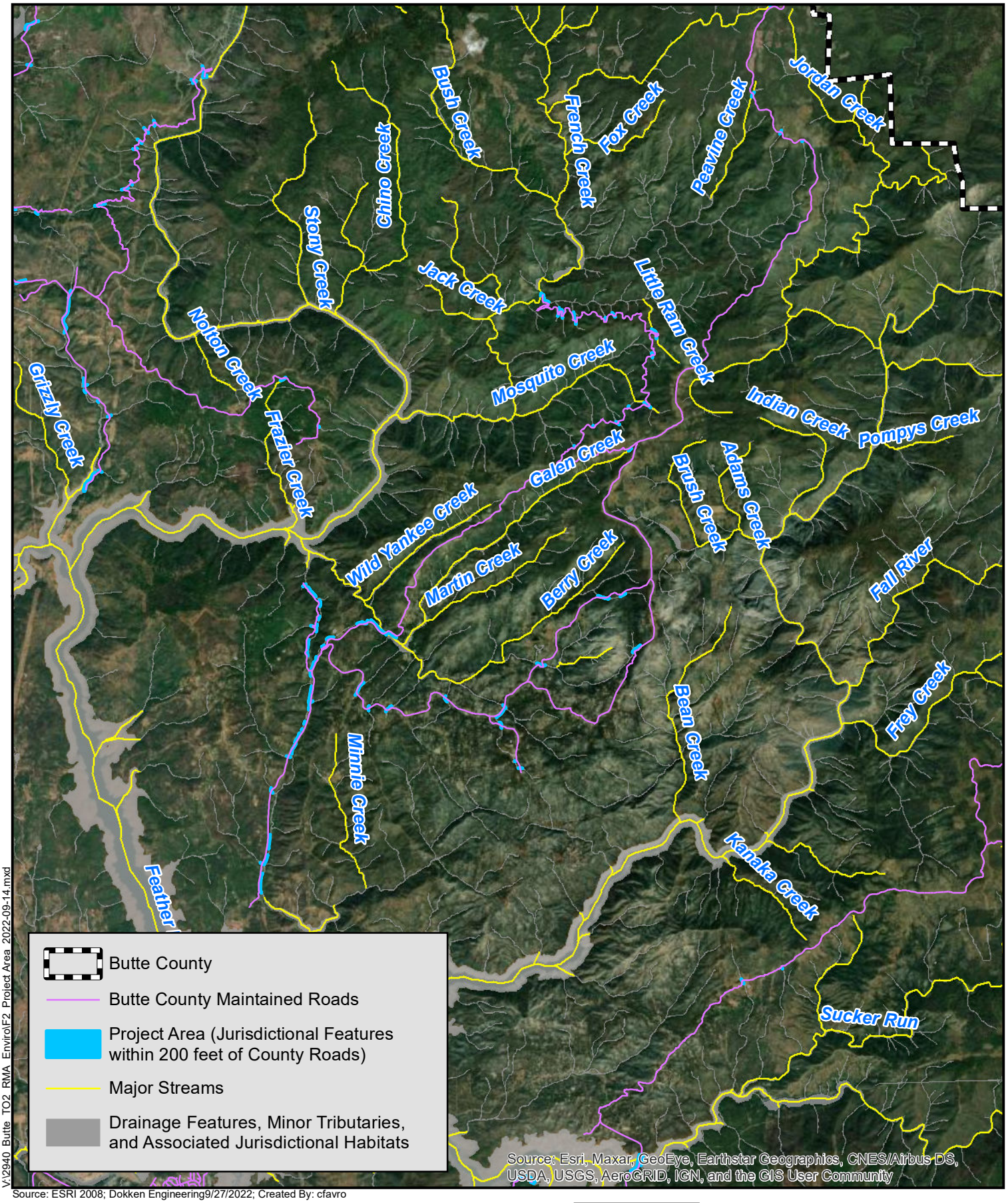

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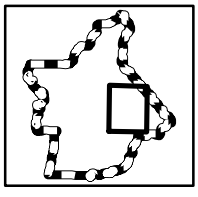

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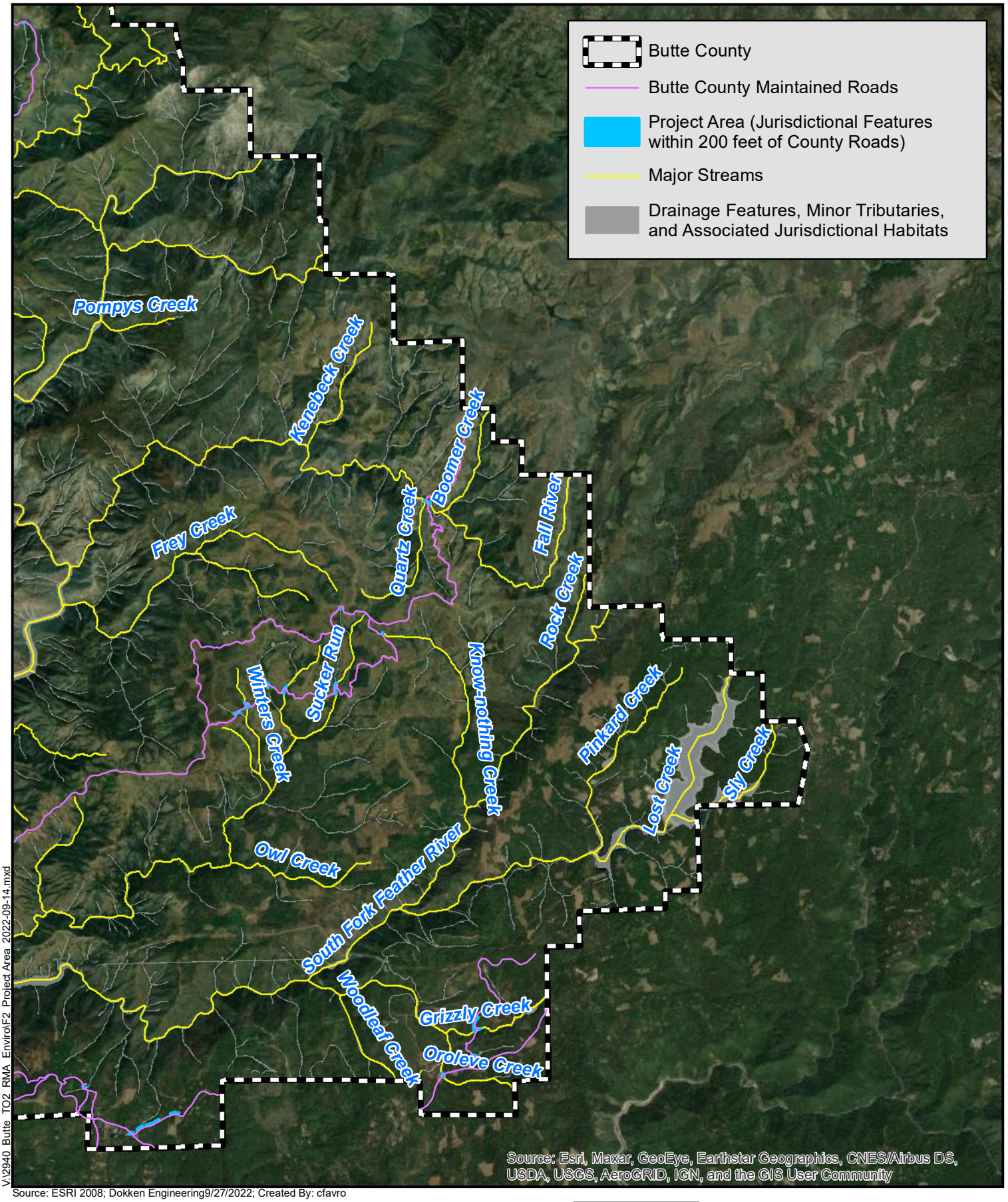

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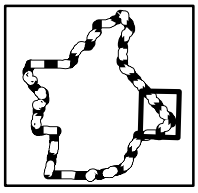

FIGURE 2
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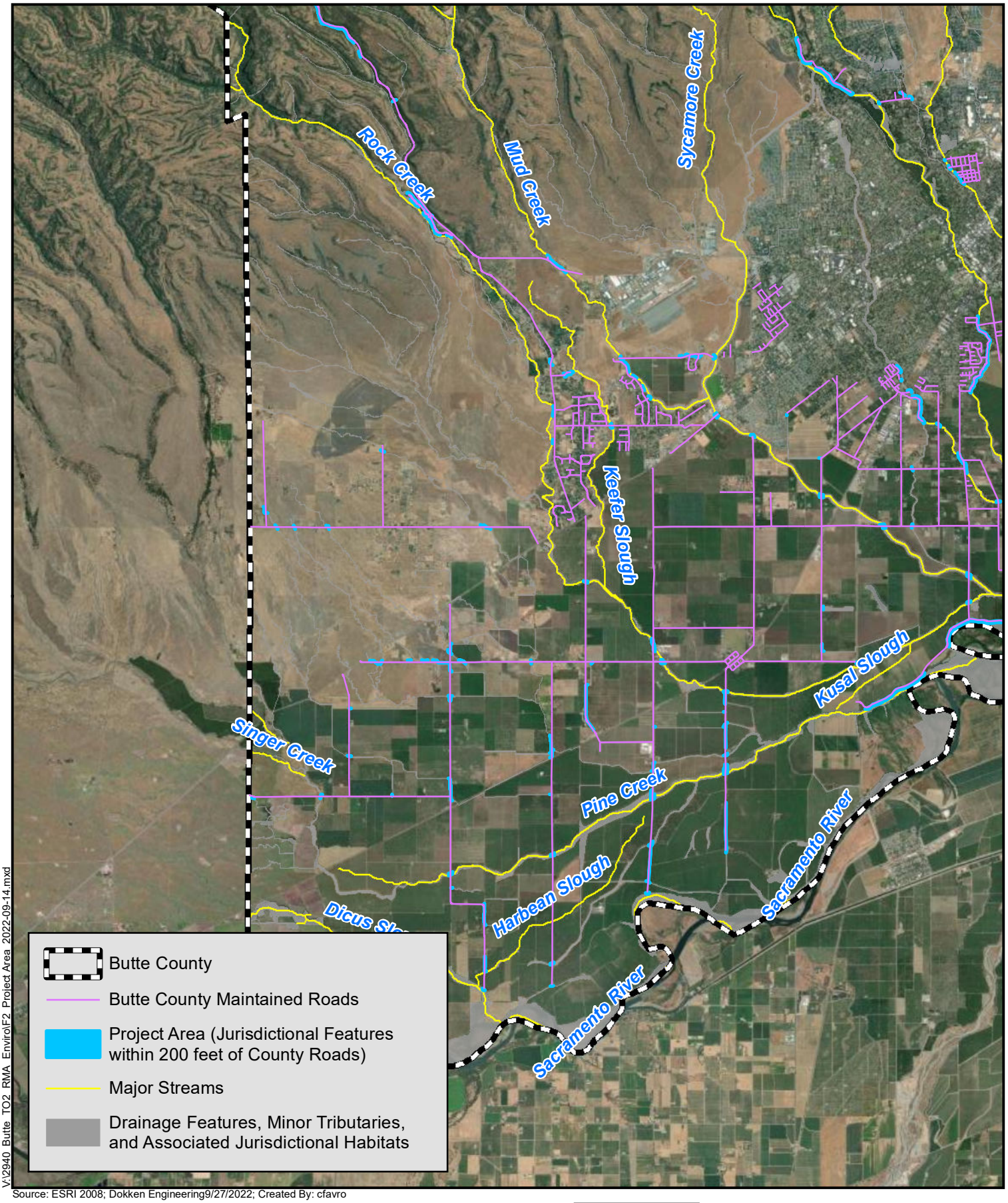

FIGURE 2
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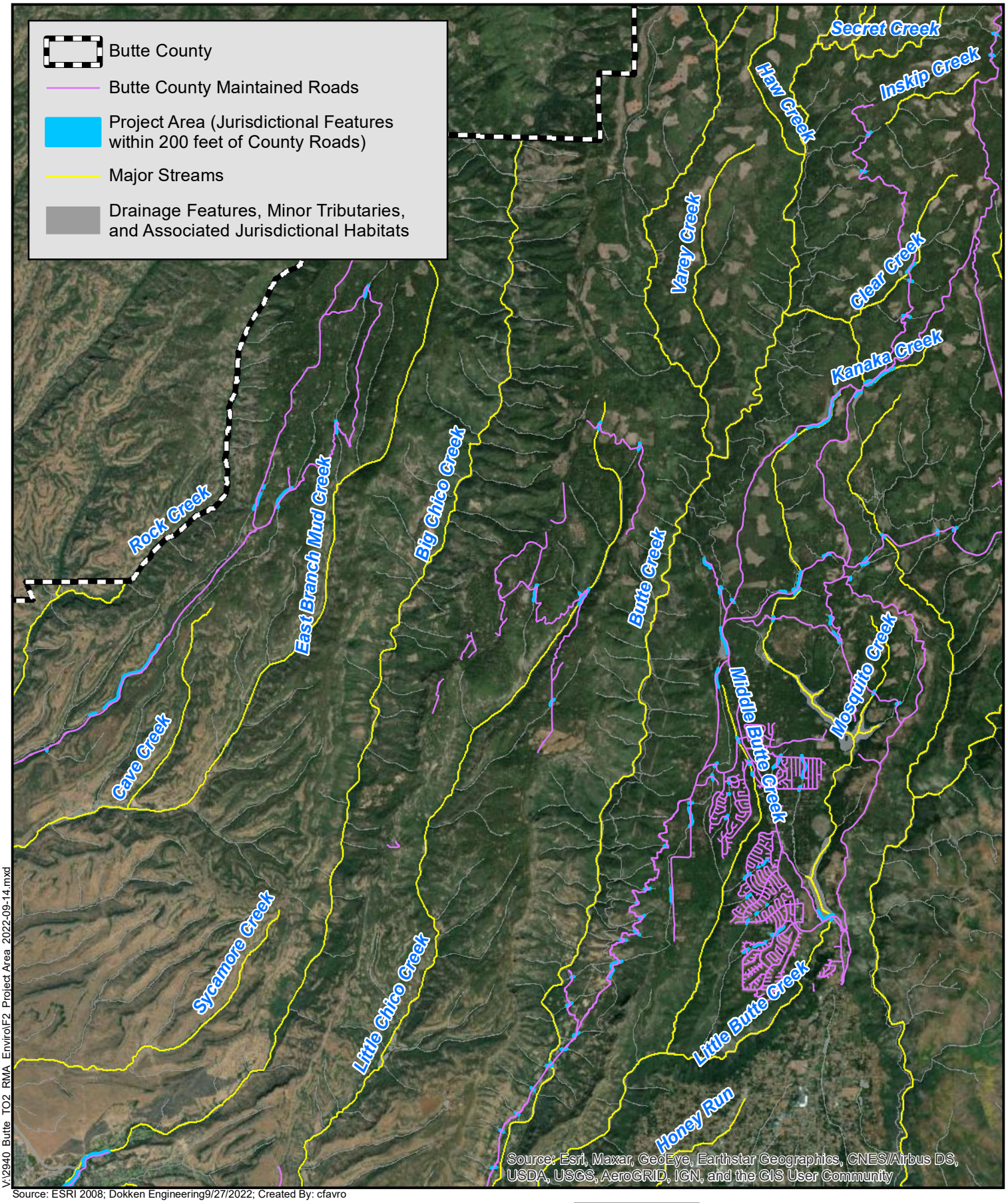

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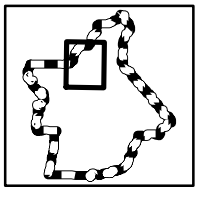

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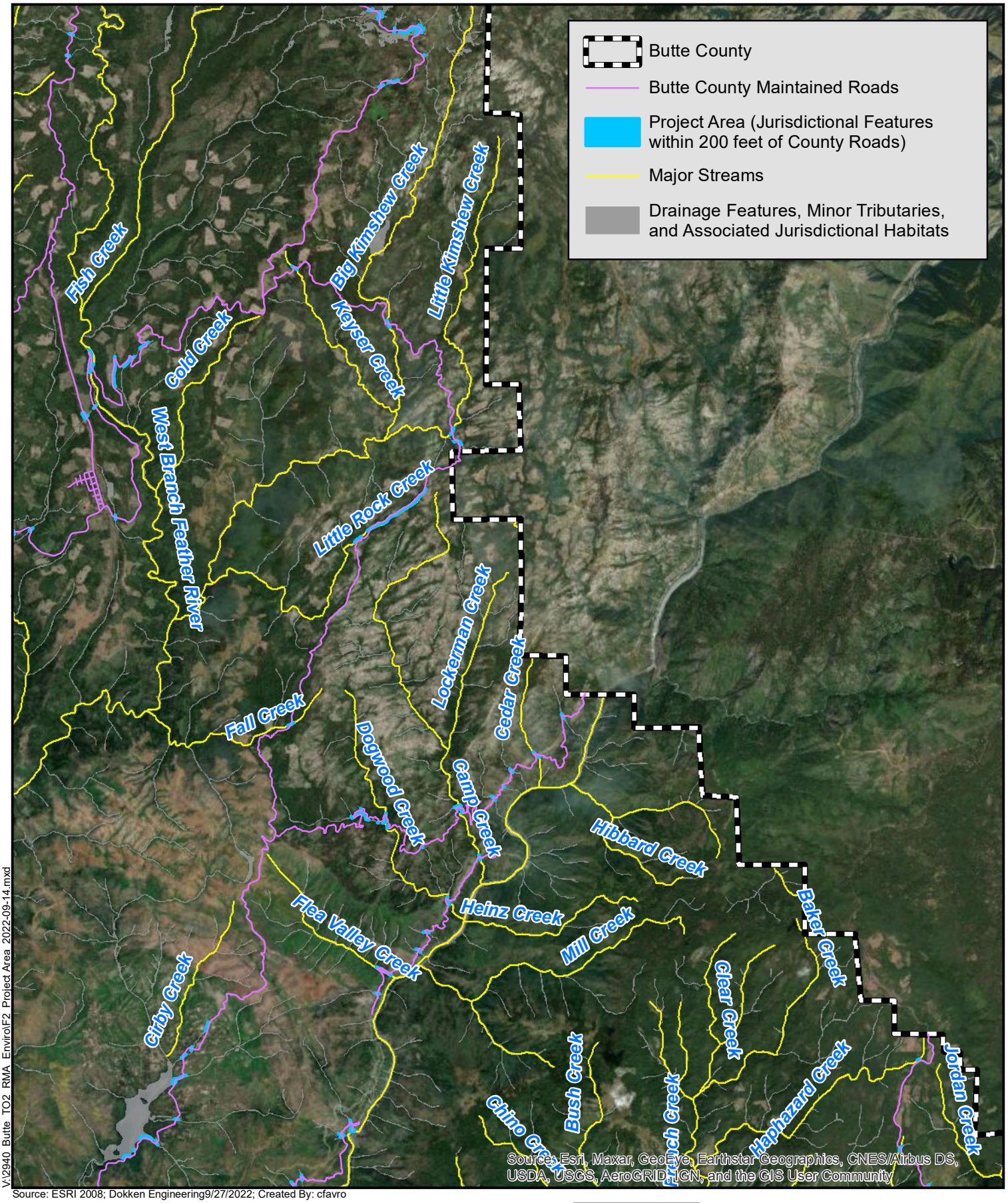
Butte County, California



V:\2940 Butte TO2 RMA Enviro\F2 Project Area 2022-09-14.mxd

Source: ESRI 2008; Dokken Engineering9/27/2022; Created By: cfavro

0 2 4 6 Miles

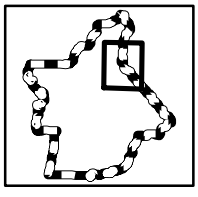


FIGURE 2
Project Area
Page 11 of 12
Butte County Routine Maintenance Agreement
Butte County, California

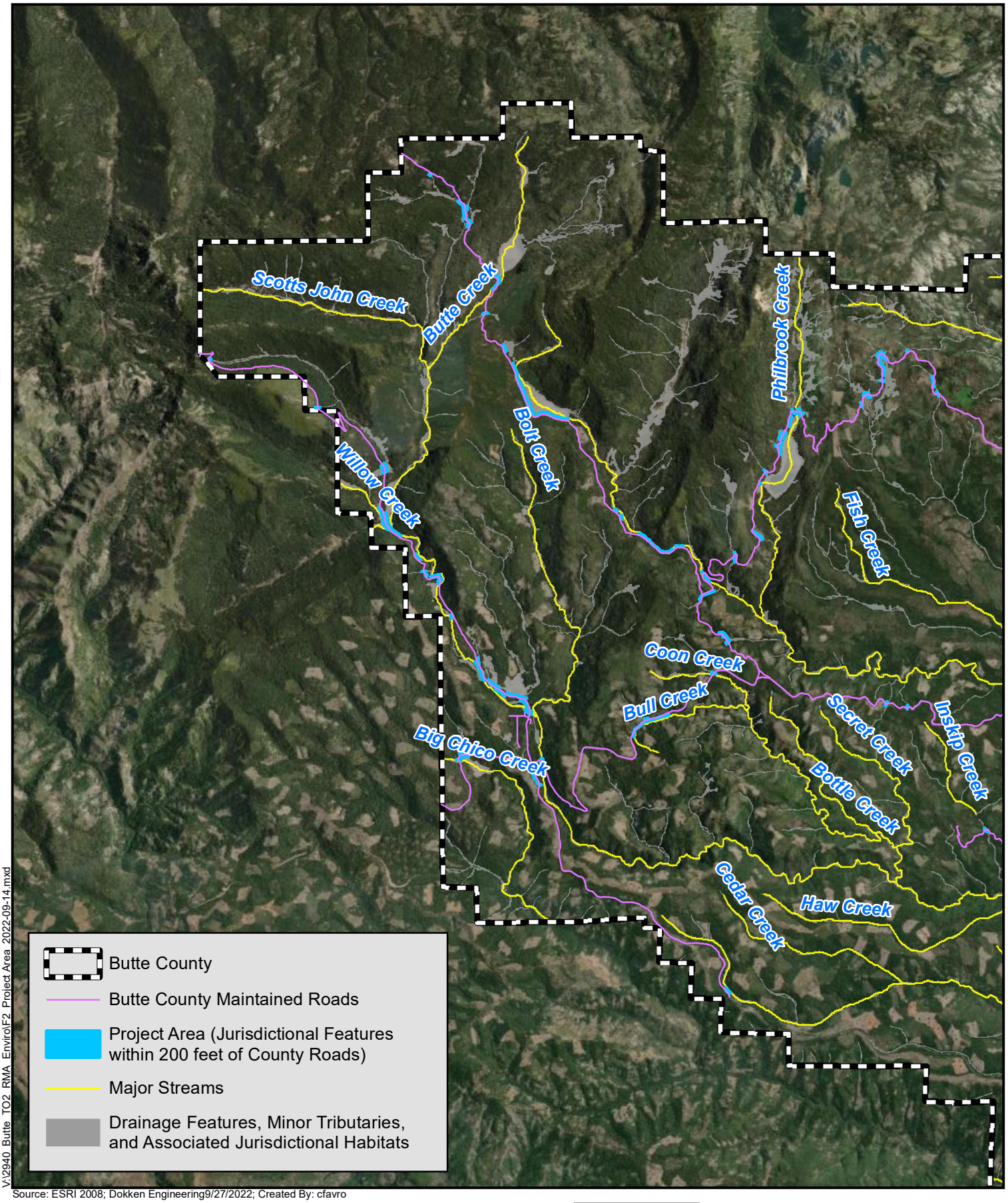
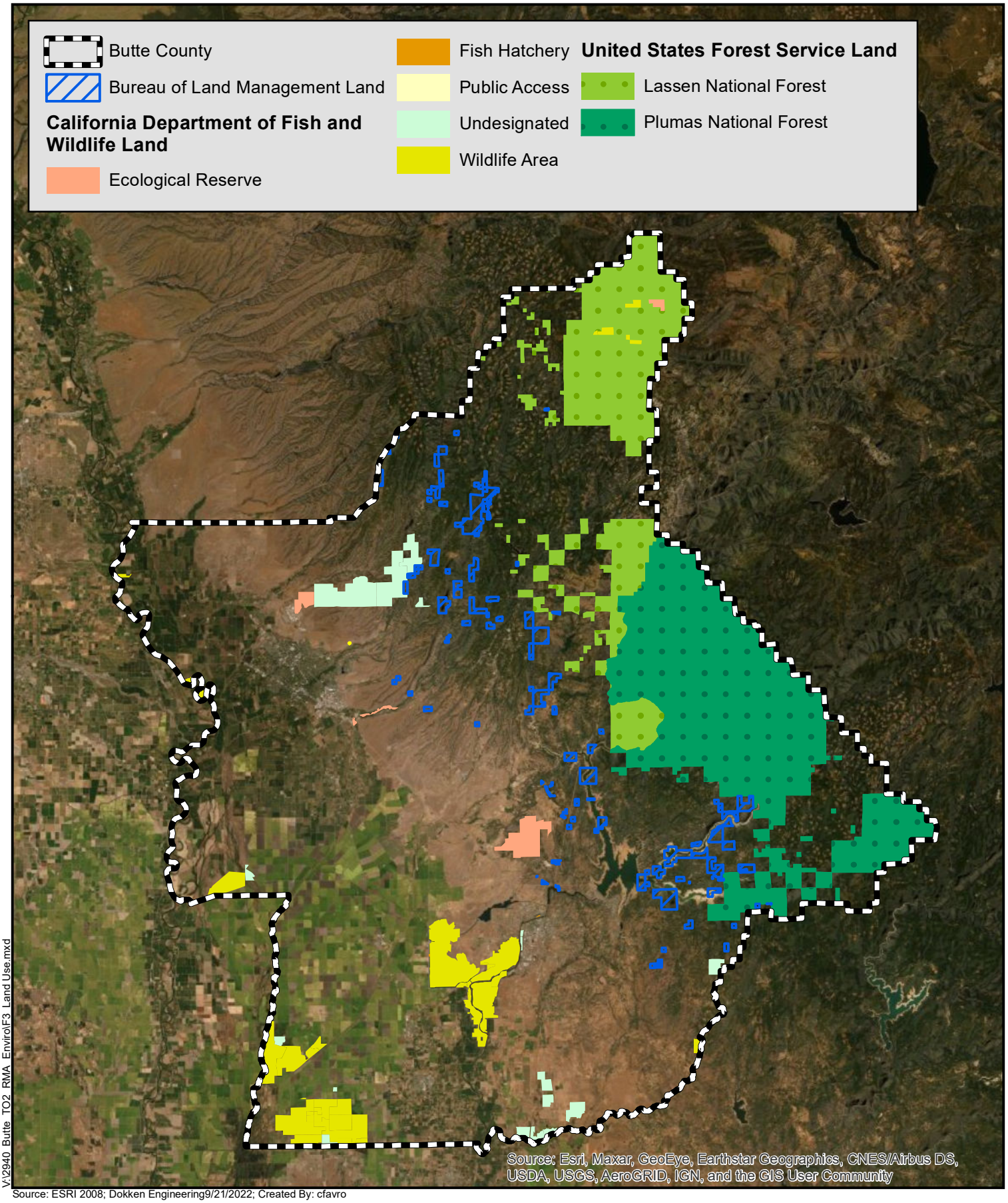


FIGURE 2
Project Area
Page 12 of 12
Butte County Routine Maintenance Agreement
Butte County, California



V:\2940_Butte_TO2_RMA_Enviro\F3_Land Use.mxd

Source: ESRI 2008; Dokken Engineering9/21/2022; Created By: cfavro

0 5 10 15 Miles

FIGURE 3
Public Agency Jurisdictions within Butte County
Butte County Routine Maintenance Agreement
Butte County, California

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "less than significant with mitigation incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forest Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards/Hazardous Materials
☒	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Scott Salembier

Digitally signed by: Scott Salembier
DN: CN = Scott Salembier email = ssalembier@dokkenengineering.com C = US O = Dokken Engineering
Date: 2023.04.12 14:41:14 -07'00'

Prepared by: Date

Cromwell, Samuel

Digitally signed by Cromwell, Samuel
Date: 2023.04.12 14:16:57-07'00'

Reviewed by: Date

1.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. There are several water-based and land-based designated scenic resources near streams, creeks, and other waterways within Butte County, such as Butte Meadows, Feather Falls, and Seven Falls. The project will be limited to maintaining facilities, removing debris, and maintaining trails. The maintenance work is unlikely to change the visual quality of the scenic vistas or have a significant impact on the scenic vista. Therefore, there would be *Less Than Significant Impact* related to scenic vistas. No mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The project would focus on maintaining and repairing infrastructure such as facilities, bridges, channels, and banks and would not substantially damage scene resources such as historic buildings. Implementation of routine channel maintenance activities may lead to the

removal of trees and aquatic vegetation. Vegetation removal would be limited to what is necessary for the maintenance activities and would be limited to the vicinity of creeks, drainage channels, and other waterways. Therefore, the project would result in *Less Than Significant Impact* related to scenic resources. No mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The routine maintenance activities of the project would involve construction work that may temporarily degrade the existing visual character or quality of public views of the site and its surroundings. However, any effect on existing visual characters would be temporary. Therefore, the project would have *Less Than Significant Impact* on existing visual character and quality of public views. No mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Routine maintenance activities would occur during daylight hours. As no night work is anticipated to be implemented during routine maintenance activities, there would be no new sources of substantial light or glare which would adversely affect day or nighttime views in the area. There would be *No Impact* to day or nighttime views in the area. No mitigation is required.

1.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Regulatory Setting

Williamson Act/Land Conservation Act Contracts

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents. The Williamson Act authorizes each county to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and county that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 9-year term that is automatically renewed each year, unless the property owner or county requests a non-renewal or the contract is cancelled.

Farmland Mapping and Monitoring Program

The California Farmland Mapping and Monitoring Program (FMMP) develops statistical data for analyzing impacts to California's agricultural resources. The FMMP program characterizes "Prime Farmland" as land with the best combination of physical and chemical characteristics that are able to sustain long-term production of agricultural crops. "Farmland of Statewide Importance" is characterized as land with a good combination of physical and chemical characteristics for agricultural production, but with less ability to store soil moisture than prime farmland. "Unique Farmland" is used for production of the state's major crops on soils not qualifying as prime farmland or of statewide importance. The FMMP also identifies "Grazing Land", "Urban and Built-up Land", "Other Land", and "Water" that is not included in any other mapping category.

California Public Resources Code Section 4526

"Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

California Public Resources Code Section 12220(g)

"Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Butte County Right to Farm Ordinance

Butte County has adopted a Right to Farm Ordinance (Butte County Code Chapter 35, Protection of Agricultural Land). This ordinance protects properly conducted agricultural operations in the unincorporated County against nuisance lawsuits and requires annual disclosure to all property owners within the County of the right to farm. In addition, the ordinance requires disclosure to buyers of real property and as part of development approvals. While the County Right-to-Farm Ordinance specifically applies to commercial agricultural operations within the unincorporated area, all commercial agricultural operations that comply with agricultural standards currently are protected from nuisance claims under State law (Section 3482.5 of the California Civil Code), whether located within cities or unincorporated areas.

Agricultural Buffer Policy

Pursuant to Policy AG-P5.3 from the General Plan 2030, Butte County has adopted Article 17 of the Butte County Zoning Ordinance which requires a 300-foot buffer between lands zoned agriculture and new

residential development. This ordinance applies to parcels where residential structures are to be developed in the following areas of the County: (1) all lands zoned Agriculture; (2) in other zones within 300 feet of the boundary of Agriculture zones; (3) areas inside and within 300 feet of sphere of influence boundaries for incorporated cities, where the boundary abuts parcels zoned Agriculture; and (4) areas within 300 feet of a Williamson Act Contract. Exceptions to the 300-foot agricultural buffer setback requirement may be requested by the project applicant through an Unusual Circumstances Review application process.

Agricultural/Residential Buffer Implementation Guidelines

The existing Butte County Zoning Ordinance requires a 300-foot buffer between agricultural and non-agricultural/residential uses. To implement this requirement, and to provide guidance regarding requests for a determination of unusual circumstances, Butte County has prepared Agricultural/Residential Buffer Implementation Guidelines. The buffer must physically separate agricultural and nonagricultural uses and help to minimize potential conflicts. The County may make a determination of unusual circumstances based on criteria outlined in the Guidelines, in which case the buffer may take other forms or be of a lesser distance.

Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The County contains regions of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland as determined by the FMMP. However, the proposed project is limited to maintenance activities within established streams and channels within County right-of-way and would not result in the conversion of Important Farmland to a non-agricultural use. *No Impact* would occur under this threshold. No mitigation is required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The routine maintenance activities would not conflict with existing zoning for agricultural use or a Williamson Act contract as construction work would be implemented within established streams and drainages in County right-of-way and not within agricultural land. *No Impact* to lands under Williamson Act Contract would occur. No mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The County contains Private Timberlands and Public Land with Forests as determined by CDFW. However, routine maintenance activities would not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. *No Impacts* to existing zoning are anticipated. No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less than Significant Impact. Routine maintenance activities would not result in the loss of forest land or conversion of forest land to non-forest use. Activities may involve the removal of trees on USFS land; however, tree removal activities would be minimal, related to necessary maintenance work, and

the County would coordinate with USFS as needed to obtain any necessary encroachment permits. This would result in *Less than Significant Impacts*. No mitigation is required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Routine maintenance activities would not involve other changes in the existing environment that could result in the conversion of Farmland to non-agricultural use. Therefore, there would be *No Impact* related to agricultural resources. No mitigation is required.

1.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile-long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is comprised of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the SVAB, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years,

additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high-pressure cell that deflects storms from the region.

In Butte County, winters are generally mild with daytime average temperatures in the low 50s°F and nighttime temperatures in the upper 30s°F. Temperatures range from an average January low of approximately 36°F to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the County. Periodic rainstorms contrast with occasional stagnant weather and thick ground or "tule" fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a "lid" over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution "hot spots" near emission sources. Carbon monoxide, nitrogen oxides, particulate matters and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM2.5) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NOx) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest (Butte County CEQA Air Quality Handbook 2014).

Regulatory Setting

Air Quality Attainment Status

Local monitoring data from the Butte County Air Quality Management District (BCAQMD) is used to designate areas a nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards and California Ambient Air Quality Standards (Table 6. Federal and State Attainment Status of Butte County). The four designations are further defined as follows:

Nonattainment – assigned to areas where monitored pollutant concentrations consistently violate the standard in question.

Maintenance – assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.

Attainment – assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.

Unclassified – assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 6. Federal and State Attainment Status of Butte County

Pollutant	State Designation	Federal Designation
1-hour ozone	Nonattainment	-
8-hour ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10	Nonattainment	Attainment
24-Hour PM2.5	No Standard	Attainment
Annual PM10	Attainment	No Standard
Annual PM2.5	Nonattainment	Attainment

Source: BCAQMD, 2018

Sensitive Receptors

Sensitive receptors are frequently occupied locations where people who might be especially sensitive to air pollution are expected to live, work, or recreate. These types of receptors include residences, schools, churches, health care facilities, convalescent homes, and daycare centers. Butte County contains a number of sensitive receptors within the RMA project area.

Butte County Air Quality Management District

The BCAQMD is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the BCAQMD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the Federal Clean Air Act and California Clean Air Act.

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. BCAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within Butte County. Analysis requirements for construction and operation-related pollutant emissions are contained in BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. Established with these guidelines are screening criteria to determine whether additional modeling for criteria air pollutants is necessary for a project. The RMA would cover minor maintenance activities that fall below the minimum screening criteria

outlined by the County; therefore, further quantification of criteria air pollutants is not required, and it may be assumed that the project would have a Less Than Significant Impact for criteria air pollutants The CEQA Air Quality Handbook also contains thresholds of significance for construction-related and operation-related emissions: ROG, NOx, and PM10.

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The applicable air quality plan for the project area is the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. In adopting this plan, BCAQMD assumes that growth within its jurisdiction will be in accordance with city and county general plans, for which air quality effects associated with build-out have been analyzed.

A project is deemed inconsistent with an air quality plan if it would result in population or employment growth that exceeds the growth estimates in the applicable air quality plan (i.e., generating emissions not accounted for in the applicable air quality plan emissions budget). Therefore, proposed projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rate included in the applicable air quality plan.

The project's routine maintenance activities would not result in population or employment growth. Therefore, the project would result in *No Impact* on the applicable air quality plan. No mitigation is required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. Emissions derived from routine maintenance activities are anticipated to be minor and are not anticipated to exceed BCAQMD's emission thresholds for criteria pollutants. Further, maintenance activities would be conducted over a 12-year period at various creeks and drainages within the County and are therefore not anticipated to be concentrated at any particular location or point in time. Considering all maintenance activities are temporary and are anticipated to be short in duration, maintenance activities would have less than a cumulatively significant net increase in criteria pollutants and would also have less than a significant impact on exposing sensitive receptors to substantial pollutant concentrations. Therefore, the project would result in a *Less Than Significant Impact*. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Individual routine maintenance activities are anticipated to be short in duration and occur periodically over a 12-year period. With the implementation of air quality BMPs, maintenance activities would have less than a cumulatively significant net increase in criteria pollutants and would also have less than a significant impact on exposing sensitive receptors to substantial pollutant concentrations. Therefore, the project would result in a *Less Than Significant Impact*. No mitigation is required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The temporary routine maintenance activities would occur in the form of minor projects located along drainage channels and creeks using standard construction equipment. Any odors or toxic air contaminants generated by the proposed project would be limited to construction equipment and would occur at such low concentrations and/or for such a short duration as to be negligible. Project activities will not include industrial or intensive agriculture uses. In addition, routine maintenance activities would be short-term and are not anticipated to result in nuisance odors that would violate BCAQMD odor regulations. Therefore, the impact is considered to be *Less Than Significant Impact*. No mitigation is required.

1.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) 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 California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) 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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The County is approximately 1,073,000 acres in size and has an elevation range from 60 feet to 8,100 feet above sea level. The variation in elevation and topography supports a wide variety of habitats and vegetation communities that provide habitat for a variety of biological resources.

Vegetation Communities

The geographic variation of the County has led to the existence of a wide range of vegetation communities. The western half of the County is within the Sacramento Valley Jepson Subregion of the California Floristic Province, characterized by lowlands that support habitats such as grasslands, marshes, vernal pools, riparian woodlands, and some alkali sink habitat (Appendix B: Figure 5. Jepson Geographic Subdivisions and Plant Survey Areas; The Jepson Herbarium 2022). The majority of the County's developed areas, including urban centers and agricultural land, occur within the western half of the County.

The center of the County can be split into two geographic subdivisions based on latitude. The northern section of these foothill subdivisions is classified as the Cascade Range Foothills Subregion, which is characterized by its elevation range and includes chaparral and blue oak/foothill pine woodland. The southern foothill subdivision is the Northern Sierra Nevada Foothills District and is also made up of many blue oak/foothill pine woodlands, as well as chaparral and serpentine. Lake Oroville is located within this subdivision.

In the far northeastern corner of the County, there is the High Cascade Range Subregion, which occurs in this region above elevations of 1,600 feet and contains ponderosa pine, montane fir/pine, and lodgepole pine forests. Finally, south of the High Cascade Range and east of the Northern Sierra Nevada Foothills District is the Northern High Sierra Nevada District. This subdivision includes ponderosa pine, white fir, giant sequoia, red fir, Jeffrey pine, and lodgepole pine.

Hydrology

The County's hydrological features include sections of major rivers and their tributaries, such as the Sacramento River and Feather River. There are five major waterways within the County which originate outside of the County: Sacramento River, Feather River (North, Middle, and South Forks), Big Chico Creek, Butte Creek, and Pine Creek. Furthermore, there are a number of major natural waterways that originate within the County: West Branch Feather River, Little Chico Creek, Rock Creek, Dry Creek, Little Dry Creek, Clear Creek, Angel Slough, Wyandotte Creek, and Honcut Creek. The four forks of the Feather River supply water to Lake Oroville, and then to the Thermalito Forebay and Afterbay. Finally, major manmade supply canals and flood control canals within the County include Western Main Canal, Western Lateral 374, Richvale Main Canal, Sutter Butte Canal, Minderman Canal, Biggs-West Gridley Main Canal, Cherokee Canal, Lindo Channel (Sandy Gulch), and Sycamore Bypass Channel (Esri 2022). Maintenance activities within and adjacent to all of these surface water features will be covered under the RMA, as each feature listed is considered CDFW jurisdictional habitat and may include associated wetlands or riparian habitats. In addition, other minor tributaries and channels, some unnamed, may also be covered under the RMA and considered CDFW jurisdictional habitat, to be determined on a case-by-case project basis through the VRF process.

Endangered, Threatened, and Special Status Species

Many species of plants and animals within the State have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. A sizable number of native species and animals have been formally designated as threatened or endangered under State and Federal endangered species legislation. Others have been designated as "Candidates" for such listing and CDFW has designated others as "Species of Special Concern (SSC)". The California Native Plant Society (CNPS) has developed its own list of

native plants considered rare, threatened or endangered. Collectively, these plants and animals are referred to as "special status species."

Wildlife databases such as the California Natural Diversity Database (CNDDB), the USFWS Information for Planning and Consultation, the CNPS Rare Plant Inventory, and the National Marine Fisheries Service (NMFS) West Coast Region Species List Tool were queried to produce a list of special status species which have habitat or are known to occur within the County (CDFW 2022, USFWS 2022, CNPS 2022, NMFS 2016). 112 species were returned by database queries (Appendix C. Biological Database Search Results). Of these, 86 species were determined to have some potential to occur within the creeks, basins, waterways, and associated riparian corridors and floodplains that will be affected by maintenance activities under the RMA. The following table lists the regulatory status and habitat requirements for each special status species identified as having the potential to occur within the potential routine maintenance areas of Butte County (Table 7. Special-Status Species Potentially Occurring in Butte County Routine Maintenance Areas).

Table 7. Special-Status Species Potentially Occurring in Butte County Routine Maintenance Areas

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
AMPHIBIANS (6)					
California red-legged frog	*Rana draytonii*	Threatened	None	SSC	Permanent pools, marshes, and ponds; riparian habitat; 0-5,200 feet
Cascades frog	*Rana cascadae*	None	Endangered	SSC	Montane streams, pools, and marshes; coniferous forest; 2,000-9,000 feet
Foothill yellow-legged frog	*Rana boylii*	None	Threatened	SSC	Shallow streams and riffles; rocky substrate; 0-6,700 feet
Sierra Nevada yellow-legged frog	*Rana sierrae*	Endangered	Threatened	None	Lakes, ponds, marshes, meadows, and streams above 4,500 feet in elevation.
Southern long-toed salamander	*Ambystoma macrodactylum sigillatum*	None	None	SSC	Montane ponds and lakes; alpine meadows; high elevations
Western spadefoot	*Spea hammondii*	None	None	SSC	Sandy or gravelly soils; vernal/temporary pools in a variety of habitats; 0-4,500 feet
BIRDS (14)					
American peregrine falcon	*Falco peregrinus anatum*	Delisted	Delisted	FP[1]	Wetlands, lakes, rivers; riparian habitat
Bald eagle	*Haliaeetus leucocephalus*	Delisted	Endangered	FP	Lakes, rivers, wetlands; ponderosa pine forests

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
Bank swallow	*Riparia riparia*	None	Threatened	None	Streams, rivers, lakes; riparian habitat; Sacramento and Feather Rivers
Burrowing owl	*Athene cunicularia*	None	None	SSC	Open, arid spaces; low elevations
California black rail	*Laterallus jamaicensis coturniculus*	None	Threatened	FP	Emergent wetlands
Greater sandhill crane	*Antigone canadensis tabida*	None	Threatened	FP	Freshwater marshes and ponds
Loggerhead shrike	*Lanius ludovicianus*	None	None	SSC	Valley foothill riparian habitat
Northern goshawk	*Accipiter gentilis*	None	None	SSC	Coniferous and deciduous forests; north-facing slopes near water; mid to high elevations
Northern harrier	*Circus hudsonius*	None	None	SSC	Wide variety of habitat types; ground nester
Swainson's hawk	*Buteo swainsoni*	None	Threatened	None	Grasslands, agricultural areas, riparian habitats
Tricolored blackbird	*Agelaius tricolor*	None	Threatened	SSC	Marshes, swamps, wetlands, and agricultural areas
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Threatened	Endangered	None	Dense cottonwood riparian forests
Willow flycatcher	*Empidonax traillii*	None	Endangered	None	Dense willow riparian habitats; wetlands and ponds
Yellow warbler	*Setophaga petechia*	None	None	SSC	Open-canopy riparian woodland, montane coniferous forests
FISH (5)					
Chinook salmon – Central Valley spring-run ESU	*Oncorhynchus tshawytscha pop. 11*	Threatened	Threatened	None	Sacramento River and tributaries (including Feather River)

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
Chinook salmon – Sacramento River winter-run ESU	*Oncorhynchus tshawytscha pop. 17*	Endangered	Endangered	None	Sacramento River
Green sturgeon – southern DPS	*Acipenser medirostris pop. 1*	Threatened	None	None	Sacramento River and tributaries
Hardhead	*Mylopharodon conocephalus*	None	None	SSC	Sacramento River and tributaries
Steelhead – Central Valley DPS	*Oncorhynchus mykiss irideus pop. 11*	Threatened	None	None	Sacramento River and tributaries (including Feather River, Butte Creek, Big Chico Creek, Lower Stony Creek)
INVERTEBRATES (4)					
Conservancy fairy shrimp	*Branchinecta conservation*	Endangered	None	None	Central Valley vernal pools
Vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened	None	None	Central Valley vernal pools
Vernal pool tadpole shrimp	*Lepidurus packardi*	Endangered	None	None	Central Valley vernal pools
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Threatened	None	None	Oak woodlands, riparian habitats; requires elderberry (*Sambucus sp.*)
MAMMALS (5)					
Pallid bat	*Antrozous pallidus*	None	None	SSC	Roosts in caves, crevices, mines, trees, bridges, and buildings
Sierra Nevada mountain beaver	*Aplodontia rufa californica*	None	None	SSC	Coniferous and deciduous forests; high elevations
Townsend's big-eared bat	*Corynorhinus townsendii*	None	None	SSC	Roosts in caves, mines, tunnels, buildings, and bridges
Western mastiff bat	*Eumops perotis californicus*	None	None	SSC	Roosts in crevices, cliffs, buildings, trees, and tunnels
Western red bat	*Lasiurus blossevillii*	None	None	SSC	Roosts in foliage, caves; riparian habitat
REPTILES (3)					
Coast horned lizard	*Phrynosoma blainvillii*	None	None	SSC	Chaparral, cismontane woodland, riparian scrub, riparian woodland, valley & foothill grasslands

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
Giant garter snake	*Thamnophis gigas*	Threatened	Threatened	None	Marshes, swamps, wetlands, sloughs, ponds, rice fields, low gradient streams, and irrigation canals
Western pond turtle	*Emys marmorata*	None	None	SSC	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches
PLANTS (49)					
Adobe-lily	*Fritillaria pluriflora*	None	None	1B.2	Vernal pools; adobe soils; 200-2,300 feet
Ahart's buckwheat	*Eriogonum umbellatum var. ahartii*	None	None	1B.2	Oak and conifer woodlands; serpentine soils; 1,000-6,000 feet
Ahart's dwarf rush	*Juncus leiospermus var. ahartii*	None	None	1B.2	Grassland swales and vernal pools; 100-750 feet
Ahart's paronychia	*Paronychia ahartii*	None	None	1B.2	Cismontane woodland, grassland, and vernal pools; rocky and volcanic soils; 100-1,700 feet
Brazilian watermeal	*Wolffia brasiliensis*	None	None	2B.3	Ponds, marshes, swamps, freshwater communities; 65-350 feet
Broad-nerved hump moss	*Meesia uliginosa*	None	None	2B.2	Bogs, fens, meadows, seeps; subalpine and upper montane coniferous forest; 4,300-9,200 feet
Brownish beaked-rush	*Rhynchospora capitellata*	None	None	2B.2	Wetlands, salt marshes, riparian habitats; 0-6,000 feet
Butte County checkerbloom	*Sidalcea robusta*	None	None	1B.2	Foothill woodland, chaparral; 0-5,000 feet
Butte County golden clover	*Trifolium jokerstii*	None	None	1B.2	Vernal pools, grasslands; 160-1,600 feet
Butte County meadowfoam	*Limnanthes floccose ssp. californica*	Endangered	Endangered	1B.1	Vernal pools, grasslands; 150-3,050 feet
California beaked-rush	*Rhynchospora californica*	None	None	1B.1	Lower montane coniferous forest, bogs, seeps, wet meadows, and freshwater marsh; 150-3,300 feet
California satintail	*Imperata brevifolia*	None	None	2B.1	Mesic soils; springs, meadows, streambanks, floodplain, chaparral,

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
					coastal scrub, riparian scrub; 0-4,000 feet
Cantelow's lewisia	*Lewisia cantelovii*	None	None	1B.2	Mesic, granitic, serpentine seeps; broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest; 1,000-4,500 feet
Caribou coffeeberry	*Frangula purshiana ssp. ultramafica*	None	None	1B.2	Wetlands; 2,400-4,600 feet
Clifton's eremogone	*Eremogone cliftonii*	None	None	1B.3	Meadows, oak woodland, coniferous woodland; 1,000-6,000 feet
Close-throated beardtongue	*Penstemon personatus*	None	None	1B.2	Yellow pine forest; 3,000-6,000 feet
Davy's sedge	*Carex davyi*	None	None	1B.3	Meadows; coniferous forest; 4,900-10,500 feet
Dissected-leaved toothwort	*Cardamine pachystigma var. dissectifolia*	None	None	1B.2	Wetlands, chaparral; 0-6,500 feet
English sundew	*Drosera anglica*	None	None	2B.3	Bogs, meadows; 4,300-7,000 feet
Fern-leaved monkeyflower	*Erythranthe filicifolia*	None	None	1B.2	Granite slabs; 1,000-5,000 feet
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	None	None	1B.1	Vernal pools, meadows, seeps, subalkaline flats; grasslands; 0-1,250 feet
Flagella-like atractylocarpus	*Campylopodiella stenocarpa*	None	None	2B.2	Cismontane woodland; 300-1,700 feet
Flat-leaved bladderwort	*Utricularia intermedia*	None	None	2B.2	Shallow water, vernal pools, marshes, lake margins; 4,000-8,900 feet
Greene's tuctoria	*Tuctoria greenei*	Endangered	Rare	1B.1	Vernal pools; grassland; 100-3,500 feet
Hairy Orcutt grass	*Orcuttia pilosa*	Endangered	Endangered	1B.1	Vernal pools, alluvial fans, stream terraces; 0-650 feet
Hall's rupertia	*Rupertia hallii*	None	None	1B.2	Cismontane woodland, lower montane coniferous forest; 1,800-7,400 feet

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
Hoover's spurge	*Euphorbia hooveri*	Threatened	None	1B.2	Vernal pools; grassland, wetland, riparian habitat; 80-820 feet
Jepson's onion	*Allium jepsonii*	None	None	1B.2	Serpentine, volcanic soils; chaparral, cismontane woodland, lower montane coniferous forest; 1,000-4,400 feet
Lewis Rose's ragwort	*Packera eurycephala var. lewisrosei*	None	None	1B.2	Foothill woodland, chaparral; 600-6,000 feet
Long-leaved starwort	*Stellaria longifolia*	None	None	2B.2	Mesic soils; bogs, fens, meadows, seeps, riparian woodland, upper montane coniferous forest; 3,000-6,000 feet
Long-stiped campion	*Silene occidentalis ssp. longistipitata*	None	None	1B.2	Chaparral, montane coniferous forest; 3,300-6,500 feet
Mildred's clarkia	*Clarkia mildrediae ssp. mildrediae*	None	None	1B.3	Pine forest; 600-6,100 feet
Mingan moonwort	*Botrychium minganense*	None	None	2B.2	Mesic soils; bogs, fens, meadows, seeps, montane coniferous forests; 4,800-10,200 feet
Minute pocket moss	*Fissidens pauperculus*	None	None	1B.2	Coniferous forest; 30-3,300 feet
Mosquin's clarkia	*Clarkia mosquinii*	None	None	1B.1	Foothill woodland; 0-4,500 feet
Mud sedge	*Carex limosa*	None	None	2B.2	Bogs, meadows, marshes; montane coniferous forest; 4,000-8,900 feet
Pink creamsacs	*Castilleja rubicundula var. rubicundula*	None	None	1B.2	Serpentine soils; chaparral, cismontane woodland, meadows, seeps, grasslands; 65-3,000 feet
Red Bluff dwarf rush	*Juncus leiospermus var. leiospermus*	None	None	1B.1	Vernal pools, mesic soils; chaparral, cismontane woodland, meadows, seeps, grasslands; 100-4,100 feet
Sanford's arrowhead	*Sagittaria sanfordii*	None	None	1B.2	Marshes, swamps, ponds, ditches; 0-2,200 feet
Scalloped moonwort	*Botrychium crenulatum*	None	None	2B.2	Wetlands, meadows, freshwater-marsh, bogs, fens, yellow pine forests; 4,900-11,900 feet

Common Name	Scientific Name	Federal Status	State Status	CNPS/CDFW Status	Habitat
Sierra arching sedge	*Carex cyrtostachya*	None	None	1B.2	Coniferous forest, meadows, seeps, marshes, swamps, riparian forest; 2,000-4,500 feet
Sierra blue grass	*Poa sierrae*	None	None	1B.3	Coniferous forest; 1,200-5,000 feet
Slender Orcutt grass	*Orcuttia tenuis*	Threatened	Endangered	1B.1	Vernal pools, gravelly soils; 100-5,800 feet
Upswept moonwort	*Botrychium ascendens*	None	None	2B.3	Mesic soils; wetlands, lower montane coniferous forest, yellow pine forest; 3,600-10,000 feet
Veiny monardella	*Monardella venosa*	None	None	1B.1	Clay soils; cismontane woodlands, grasslands; 200-1,400 feet
Water bulrush	*Schoenoplectus subterminalis*	None	None	2B.3	Bogs, marshes, swamps, lakes; 2,500-7,400 feet
Western goblin	*Botrychium montanum*	None	None	2B.1	Mesic soils; meadows, seeps, coniferous forest; 4,800-7,000 feet
White-stemmed clarkia	*Clarkia gracilis ssp. albicaulis*	None	None	1B.2	Serpentine soils; chaparral, foothill woodland; 800-3,600 feet
Wooly rose-mallow	*Hibiscus lasiocarpos var. occidentalis*	None	None	1B.2	Wetlands, marshes, levees; 0-400 feet

[1]Fully Protected (FP)

Regulatory Setting

California Environmental Quality Act

CEQA Guidelines Section 15065 requires a mandatory finding of significance for projects that have the potential to substantially degrade or reduce the habitat of a threatened or endangered species, and to fully disclose and mitigate impacts to special status resources. For the purposes of this Initial Study, CEQA (Sections 21083 and 21087, Public Resources Code) defines mitigation as measure(s) that:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

Butte County Regional Conservation Plan

The Butte County Association of Governments (BCAG) submitted the Butte Regional Conservation Plan (BRCP), a joint federal Habitat Conservation Plan (HCP) and State Natural Community Conservation Plan (NCCP), to federal and State resource agencies in June of 2019. Approval of the BRCP is still in progress as of August 2022.

The proposed BRCP Plan Area covers approximately 564,000 acres of land in Butte County and seeks incidental take permit coverage from USFWS, NMFS, and CDFW for permanent development projects and recurring maintenance activities. Covered activities under the BRCP must implement relevant conditions outlined in Chapter 6 of the BRCP. This includes avoidance and minimization measures, construction and project design measures, and BMPs.

Discussion

a) 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 California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. Biological resource analysis assumes implementation of applicable biological resource avoidance, minimization, and mitigation measures. Based on a record search of the CNDDB, the USFWS Information for Planning and Consultation, the CNPS Rare Plant Inventory, and the NMFS West Coast Region Species List Tool, 87 special-status species were found to have the potential to occur within Butte County routine maintenance areas (Appendix D. Special Status Species Potential Table). The following set of criteria has been used to determine each species potential for occurrence on the site:

> High: Species known to occur within the County (based on numerous recent CNDDB, CNPS, or ebird.org records within County boundaries) and there is suitable habitat for the species within the County's maintenance project areas.
>
> Moderate: Species known to occur within the County (based on few recent occurrences within the County) and there is suitable habitat for the species within the County's maintenance project areas.
>
> Low: Species known to occur in the vicinity of the County (based on no occurrences of the species within the County and very few occurrences of the species within 10 miles of the County –or– limited occurrences of the species within 10 miles of the County appears to be on the periphery of the known distribution of the species) and there is suitable habitat for the species within the County's maintenance project areas.
>
> Absent: Species is not known or expected to occur within the County's maintenance project areas. This may be based on a lack of recent occurrences within 5 miles of the County, lack of suitable habitat, the County being located outside of ecological subsections associated with the species, or the County being located outside of the known geographic range of the species.

Only those special-status wildlife species that have a high, moderate, or low potential of occurring within the County are included in Table 7 and are discussed below.

<u>Amphibians</u>

Six special-status amphibian species have the potential to occur within or near the County's anticipated routine maintenance areas. These species are California red-legged frog (CRLF), Cascades frog, foothill

yellow-legged frog (FYLF), Sierra Nevada yellow-legged frog (SNYLF), southern long-toed salamander, and western spadefoot.

CRLF and FYLF are found in foothill riparian habitat and water sources which are found within the County. Cascades frog, SNYLF, and southern long-toed salamander inhabit montane riparian habitats at high elevations and potentially suitable habitat for these species is found within the County (Appendix B: Figure 6. Reptile and Amphibian Survey Areas). Routine maintenance activities such as debris, obstruction, or sediment removal, vegetation control, erosion control work on stream channels, water diversions, and channel facility work has the potential to impact these amphibian species. Potential impacts include alteration or loss of habitat and various perils associated with the presence of construction equipment such as entrapment and vehicular collisions. Over the life of the RMA, it is estimated that approximately 33.4 acres of foothill amphibian habitat will be temporarily impacted and approximately 17.8 acres will be permanently impacted. An estimated 1.9 acres of high elevation amphibian habitat will be permanently impact and approximately 3.6 acres will be temporarily impacted.

Western spadefoot is found within a variety of habitats, including grasslands and valley or foothill woodlands. Potential vernal pool breeding habitat and adjacent grassland dispersal habitat is present within the County. Routine maintenance work will not occur in vernal pool breeding habitat for western spadefoot but may occur in adjacent grassland dispersal habitat. Such maintenance work may include vegetation control and goat grazing; these activities may impact the species by disturbing burrows, disrupting dispersal, and altering or reducing habitat. Over the life of the RMA, it is estimated that approximately 4.8 acres of western spadefoot habitat will be temporarily impacted and approximately 2.6 acres of habitat will be permanently impacted.

To avoid and minimize potential impacts to CRLF, FYLF, Cascades frog, and southern long-toed salamander, Mitigation Measure BIO-2 will be implemented. To avoid and minimize potential impacts to western spadefoot, Mitigation Measure BIO-7 will be implemented.

Birds

Fourteen special-status bird species have been identified as having the potential to occur within or near the County's anticipated routine maintenance areas. These species are American peregrine falcon, bald eagle, bank swallow, burrowing owl, California black rail, greater sandhill crane, loggerhead shrike, northern goshawk, northern harrier, Swainson's hawk, tricolored blackbird, western yellow-billed cuckoo, willow flycatcher, and yellow warbler.

Migratory birds and birds of prey which are protected under 50 Code of Federal Regulations 10 of the Migratory Bird Treaty Act and/or Section 3503 of the California Fish and Game Code have the potential to nest in trees within the County's routine maintenance areas during the nesting season (February 1 through September 15). Routine maintenance projects may affect suitable nesting habitat for general migratory birds and raptors and special status bird species. In particular, activities involving the removal or trimming of trees, shrubs, and other vegetation have the potential to impact nesting migratory birds and raptors. Erosion control work may also impact ground nesting species. Furthermore, bridge and culvert facility repair, removal, or replacement may impact nesting swallows or other species that build nests on anthropogenic structures. Maintenance activity-related effects may include disturbance of active nests leading to nest failure and reduction of available nesting habitat. Over the 12-year RMA, it is estimated that approximately 9.6 acres of nesting bird habitat would be permanently affected and approximately 18.0 acres would be temporarily impacted by the proposed routine maintenance activities.

Burrowing owl has the potential to occur within the County's maintenance areas. The species inhabits a variety of open habitats at low elevations, including grasslands and agricultural areas. Rather than nesting in trees, the species inhabits burrows which may be near or within maintenance areas. Activities such as vegetation control and goat grazing have the potential to impact burrowing owl by disturbing burrows and altering or removing habitat. It is anticipated that routine maintenance activities would have approximately 4.8 acres of temporary impact and 2.6 acres of permanent impact to burrowing owl habitat over 12 years.

To avoid and minimize potential impacts to migratory birds and raptors, Mitigation Measures BIO-3 and BIO-4 will be implemented. Furthermore, to avoid and minimize potential impacts to burrowing owl, Mitigation Measure BIO-5 will be implemented.

Fish

Five fish species have the potential to occur within the streams and waterways of Butte County. These species are spring-run Chinook salmon, winter-run Chinook salmon, green sturgeon, hardhead, and steelhead. These species are known to occur in the Sacramento River and its tributaries, including the Feather River (Appendix B: Figure 7. Range of Anadromous Fish within Butte County). Routine maintenance may be conducted on the Sacramento and Feather Rivers and their tributaries. Specifically, activities such as facility repair, removal, or replacement, channel alignment maintenance, conversion of concrete-lined channels, water diversion erosion control, and other debris removal activities have the greatest chance of impacting fish species. Potential impacts to fish include alteration or removal of habitat, obstruction of migratory pathways, alteration of streamflow conditions, and even entrapment in construction equipment. It is estimated that maintenance activities would have approximately 18.0 acres of temporary and 9.6 acres of permanent impacts to special status fish species habitat over the 12 years of the RMA.

To avoid and minimize potential impacts to special status fish species, Mitigation Measure BIO-6 will be implemented.

Invertebrates

Three species of fairy shrimp have the potential to occur within or near routine maintenance project areas. These species are conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, and are all found within vernal pool habitat. While there is potentially suitable vernal pool habitat within the County, routine maintenance activities will not occur within vernal pools and no impacts to these species are anticipated. To completely avoid all potential maintenance related impacts to these species, Mitigation Measure BIO-7 will be implemented.

Additionally, one special status insect has the potential to occur within the County's routine maintenance areas, the valley elderberry longhorn beetle (VELB). VELB utilize elderberry (*Sambucus sp.*) as host plants and are found in riparian corridors. Routine maintenance work may occur in elderberry riparian corridors suitable for VELB and could include activities such as vegetation control and erosion control work which may alter or reduce VELB habitat. Temporary impacts to VELB habitat are estimated to be 18.0 acres and permanent impacts are estimated to be 9.6 acres over the 12-year RMA lifespan.

To avoid and minimize potential impacts to the species, Mitigation Measure BIO-8 will be implemented.

Mammals

Five special-status mammal species have the potential to occur within or near the routine maintenance areas. These species are pallid bat, Sierra Nevada mountain beaver, Townsend's big-eared bat, western mastiff bat, and western red bat.

Bats are known to roost in trees, bridges, and other man-made structures, especially those near riparian habitats, and the four species mentioned previously have the potential to occur within the County's routine maintenance areas. Furthermore, routine maintenance may directly impact structures and trees that are occupied by roosting bats. Such activities include bridge and culvert facility work, and tree removal or trimming work which could disturb bats roosting in bridges, culverts, and trees. Estimated impacts to bat habitat over the life of the RMA include approximately 36.0 acres of temporary and 19.2 acres of permanent effects.

The Sierra Nevada mountain beaver inhabits coniferous and deciduous forests near water sources at high elevations. Routine maintenance work may occur within streams and drainages at higher elevations (above 5,500 feet) within habitats that are potentially suitable for the species. The species burrows in dense riparian thickets near mountainous streams and springs. Routine maintenance activities such as bridge and culvert work and vegetation control at elevations above 5,500 feet may disturb burrows or reduce potentially suitable habitat for the species. Over the life of the RMA, there is a potential for the County to temporarily impact 3.2 acres and permanently impact 1.7 acres of Sierra Nevada mountain beaver habitat. To avoid and minimize potential impacts to the Sierra Nevada mountain beaver, Mitigation Measure BIO-10 will be implemented.

To avoid and minimize potential maintenance related impacts to bats, Mitigation Measures BIO-4 and BIO-9 will be implemented.

Reptiles

Three special status reptile species were determined to have the potential to occur within the County's routine maintenance areas, coast horned lizard, giant garter snake (GGS), and western pond turtle.

Coast horned lizard is a fully terrestrial lizard that is not found within water but may be present in upland habitats adjacent to waterways. Western pond turtle is a fully aquatic turtle which inhabits ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches. GGS is a large, semi-aquatic snake which inhabits marshes, swamps, wetlands, sloughs, ponds, rice fields, low gradient streams, and irrigation canals. GGS also utilizes adjacent uplands for basking and estivation habitat.

Coast horned lizard is unlikely to be found within routine maintenance areas but may be found along access routes or in areas adjacent to maintenance work. Routine maintenance work may occur in potentially suitable aquatic and upland habitat for western pond turtle and giant garter snake. Activities which could impact these species include any in-stream work, such as facility replacement, removal, or repair, erosion control work, debris or sediment removal work, and vegetation control on streambanks. Impacts to the species include alteration or loss of habitat, disruption of estivation or nesting areas on streambanks, and various perils associated with the presence of construction equipment such as entrapment and vehicular collisions. Loss of habitat for western pond turtle is estimated to total in 33.4 acres of temporary impact and 17.8 acres of permanent impact over the life of the RMA. Loss of habitat for giant garter snake is estimated to total in 9.7 acres of temporary impact and 5.1 acres of permanent impact over the life of the RMA.

To avoid and minimize potential impacts to special status reptiles, Mitigation Measure BIO-2 will be implemented.

Plants

Forty-nine special status plant species have been determined to have the potential to occur within the County's maintenance areas (Table 7). Special status plants have the potential to inhabit a wide variety of communities within the County, particularly within proximity to stream channels and drainages. The 12-year RMA would have temporary and permanent impacts to potentially suitable habitat for special status plant species, estimated as 9.6 acres of permanent and 18.0 acres of temporary impacts to stream channel and other aquatic habitats, and 9.6 acres of permanent and 18.0 acres of temporary impacts to riparian habitat.

There are five geographic subdivisions of the California Floristic Province within the County which are characterized by varying botanical communities present: Sacramento Valley, Cascade Range Foothills, Northern Sierra Nevada Foothills, High Cascade Range, and Northern High Sierra Nevada. Each subdivision has the potential to support a fraction of the 49 special status plants that have the potential to occur within the County as a whole. Mitigation Measure BIO-11 requires pre-construction surveys for specific species dependent on the region which will avoid and minimize potential impacts to special status plant species (Appendix B: Figure 5).

Implementation of Mitigation Measures BIO-1 through BIO-15 would reduce impacts to special-status wildlife and plant species to less than significant level. Therefore, impacts to special-status species are considered to be *Less Than Significant Impact With Mitigation Incorporated*.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. Riparian and wetland habitat occur along the rivers, streams, creeks, drainages, and basins within the County. Maintenance work will be focused on repairing facilities, realigning channels, and improving native habitat.

The routine maintenance may require temporary and/or permanent impact to wetlands, riparian vegetation, or stream channels. When considering impacts to these biological resources in terms of temporary or permanent impacts it is necessary to determine the baseline conditions from which to base impacts. For the means of this document, "baseline conditions" means the ecological condition of a site at the time the document is approved. This means that any routine maintenance work conducted once every year or two that maintains current ecological conditions (i.e., annual vegetation trimming and thinning) is not considered a temporary or permanent impact because vegetation typically returns within one year and therefore does not alter the habitat function from baseline conditions. Following this definition of baseline conditions, impacts defined as temporary or permanent are discussed below.

A temporary impact is defined as an action that significantly modifies an area from baseline conditions and allows it to return to baseline after maintenance is complete. Depending on the size of the temporary impact, active site restoration in the form of seeding or planting may be required. Examples of temporary impacts include the routine maintenance tasks of vegetation control in channels, debris or obstruction removal, and silt, sand and sediment removal as described in the project description. These tasks entail vegetation thinning, tree liming, trash, and obstruction removals (including beaver dams and flood deposited woody and herbaceous vegetation). Removal of a single tree for flood control or public health and safety reasons from an otherwise healthy riparian area would not constitute a significant permanent impact subject to mitigation. Compensatory mitigation for

temporary impacts is not expected to be required and will be determined on a case-by-case basis through coordination with CDFW.

A permanent impact is defined as an action that significantly modifies an area from baseline conditions but does not allow it to return to baseline. Examples of a permanent impact may include routine maintenance tasks such as channel alignment maintenance, removal or replacement of facilities, repair of previous erosion control work, and minor erosion control work as described in the project description when maintenance results in permanent removal of existing vegetation and habitat. Such permanent impacts require compensatory mitigation to result in Less Than Significant Impacts.

Anticipated quantities of temporary and permanent impact over the life of the 12-year RMA have been estimated as follows: approximately 18.0 acres of temporary impact and 9.6 acres of permanent impact to stream channel and other aquatic habitats, and approximately 18.0 acres of temporary impact and 9.6 acres of permanent impact to riparian habitat. Incorporation of Mitigation Measure BIO-15 would lessen potential impacts to riparian vegetation or other sensitive natural communities such as emergent wetlands located within the County to a less than significant level. Exact compensatory mitigation for routine maintenance impacts to riparian and emergent wetland vegetation will be determined during the preparation of an HMMP as described in Mitigation Measure BIO-16.

Impacts to riparian habitat and other sensitive natural communities within the County would be *Less Than Significant With Mitigation Incorporated*.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact With Mitigation Incorporated. Federal and state jurisdictional wetlands within the County include in-channel freshwater emergent wetlands, vernal pools, and swales. Although removal of sediment from waters of the United States and State, including freshwater emergent wetlands, is a proposed activity, removal of sediment would be limited to what would improve the habitat quality and function of the features by returning flows to a more natural state. Implementation of biological resource avoidance, minimization, and mitigation measures would lessen potential impacts to wetland habitat located within the County to a less than significant level. For routine maintenance activities within the USACE jurisdiction, impacts will be limited to the requirements of a Section 404, Nationwide Permit 3 for maintenance (or alternative Nationwide Permit as determined by USACE). Impacts to federally protected wetlands are considered *Less Than Significant With Mitigation Incorporated*, and no further mitigation is required.

d) 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?

Less Than Significant Impact. The County provides habitat for a variety of wildlife such as birds and mammals. The project, as a routine maintenance project consisting of minor channel maintenance activities over a period of 12 years, would not permanently interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Any interference with migratory wildlife corridors due to maintenance activities within stream channels would be temporary, timed to fall outside the migration season for anadromous fish, and full functionality of all potential migratory corridors will be restored. Mitigation Measure BIO-6 will be implemented to fully avoid impacts to migrating fish. Migratory birds would be protected by the implementation of Mitigation Measures BIO-3 and BIO-4. Maintenance activities would typically

occur during daylight hours. Terrestrial wildlife typically migrates at night and therefore would have the opportunity to pass through areas that are temporarily subject to maintenance during nighttime hours without being significantly constrained by maintenance. Impacts are therefore considered *Less Than Significant With Mitigation Incorporated*.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project would not conflict with any local policies or ordinances protecting biological resources and is consistent with goals and policies identified in Butte County General Plan 2030. *No Impact* to local policies or ordinances is anticipated. No mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. Adoption of the BRCP, a joint HCP/NCCP, is currently in progress. RMA activities may qualify as Covered Activities under the BRCP and if adopted, the County may seek take authorization under the BRCP. The County would follow all applicable provisions of the BRCP, including avoidance and minimization measures, construction and project design measures, and BMPs. *No Impact* regarding the provisions of an adopted local, regional, or State conservation plan is anticipated. No mitigation is required.

Mitigation Measures

Mitigation Measure BIO-1

Prior to beginning any maintenance work under the RMA, the County maintenance staff and supervisors will receive environmental awareness training. The environmental awareness training program will be developed by a biologist who is knowledgeable about the special status species and other sensitive biological resources within the County. The training programs will include a discussion of the distribution and habitat of special status species within the County, legal protections for these species, penalties for violations, and species-specific protective measures. Interpretation will be provided for non-English speaking personnel. The training program will be provided to all personnel working on each maintenance project prior to work beginning. Training materials will be made available to personnel as pamphlets, information cards, or other methods. Upon completion of environmental awareness training, personnel will sign a form stating they attended the program and understand all required protection measures.

Mitigation Measure BIO-2

If water is present within work areas during maintenance activities, and the activity is located within the mapped range and potentially suitable habitat for CRLF, FYLF, Cascades frog, SNYLF, southern long-toed salamander, giant garter snake, and/or western pond turtle, a focused pre-construction survey for the species will be required (Appendix B: Figure 6). Surveys are not required within urban or barren land cover areas lacking water or native vegetation. Pre-construction surveys will be completed by a CDFW-approved Designated Biologist. Methods will include visual encounter surveys (VES) and/or cover object searches and will be conducted in accordance with the most recently adopted survey protocol for the species in question, where applicable. If special status species are identified within a maintenance area, the County will coordinate with CDFW to determine species and

project specific measures to avoid take of the species. Such measures may include delaying the start of construction, biological monitoring, exclusion fencing, and/or a water diversion plan.

Mitigation Measure BIO-3

The County will time tree and other vegetation removal to avoid the nesting bird season where feasible. The nesting bird season is defined as February 1 through September 15.

If tree and vegetation removal and/or construction activities must occur during the nesting bird season (February 1 through September 15), a biologist will conduct pre-construction surveys for nesting birds and raptors no more than 3 days (72 hours) prior to the initiation of tree/vegetation removal and/or initial construction activities. If there is a break in construction activities of more than seven days, then subsequent surveys will be conducted. Surveys will include the entire project area, including staging areas and access routes, plus a 50-foot buffer. Survey results will be documented in a memorandum and submitted to the CDFW through the VRF process.

If an active nest is found, active nests should be avoided, and a no disturbance or destruction buffer shall be determined and established by a CDFW-approved Designated Biologist. The buffer shall be kept in place until after the breeding nesting season or the Designated Biologist confirms the young have fledged, are foraging independently, and the nest is no longer active for the season. The extent of these buffers shall be determined by the Designated Biologist and will depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

If construction activities are scheduled to occur outside of the nesting season (September 16 through January 31), then a nesting bird survey is not required, and no further studies are necessary.

Mitigation Measure BIO-4

If swallow mud nests occur within a project area, swallow nests may be removed by a qualified biologist in order to exclude nesting swallows and roosting bats from the project area. Swallow nests will only be removed if necessary to reduce conflicts with maintenance activities and will be timed to occur outside of the nesting season (September 16 through January 31). Nests will be inspected by a CDFW-approved Designated Biologist and removal may occur only once the nests are determined to be inactive, i.e., the young of the year have fledged and no swallow nesting activity is actively occurring. If nests are occupied by roosting bats, then removal must be completed by a qualified bat biologist with knowledge of bat-safe swallow nest removal methods and appropriate bat handling permits.

During the nesting season (February 1 through September 15), the County may discourage swallow nest construction by removing partially completed nests. Only nests that are less than one-third complete will be removed by washing or knocking down nests. Once a nest is more than one-third complete, it will not be disturbed until a biologist has determined the nest to be inactive.

Mitigation Measure BIO-5

If maintenance activities are planned in suitable burrowing owl habitat, a qualified biologist will conduct a pre-construction survey for burrowing owl following the methodology described in the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 14 days of the start of construction. If burrowing owls or signs of burrowing owl presence, such as whitewash, feathers, animal dung, etc., are not detected, no further measures will be required. If burrowing owls are observed within 500 feet of the maintenance area, the County will develop an Impact Assessment consistent with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) and submit the Impact Assessment to CDFW prior

to maintenance work. The final avoidance and mitigation measures will be determined in coordination with CDFW but the Impact Assessment will, at a minimum, include the following mitigation measure:

Occupied burrows will not be disturbed. If occupied burrows are found, the biologist will consult with CDFW to determine appropriate no-work buffer widths. The County will not disturb identified burrowing owl burrows until the biologist verifies it has been cleared and approved by CDFW.

Mitigation Measure BIO-6

Maintenance activities occurring within the bed, bank, or channel of the Sacramento River, Feather River, and tributaries to these water bodies that are accessible to anadromous fish species will be limited to the period of July 1 to October 15 to minimize potential impacts to special status fish species (Appendix B: Figure 7). This in-water work window may be adjusted or extended on a case-by-case basis in coordination with CDFW and NMFS.

Construction activities will also be timed with awareness of precipitation forecasts and likely increases in stream flow. The County will monitor the National Weather Service 72-hour forecast to monitor forecasted rain events. All work within the bed, bank, or channel of any stream will be restricted to periods of dry weather (with less than a 50% chance of precipitation). If a precipitation event of over a quarter inch over a 24-hour period occurs, then work will be paused for a 24-hour dry-out period. All erosion control measures shall be initiated prior to all storm events.

Revegetation, restoration, and erosion control work is not confined to this work period. Furthermore, if emergency maintenance is required, seasonal limitations do not apply. Emergency maintenance is defined as immediate emergency work necessary to protect life or property, or to restore public service facilities necessary to maintain service. The County will notify CDFW within 14 days of beginning emergency maintenance work.

Mitigation Measure BIO-7

The County will not conduct routine maintenance activities within vernal pools, playas or other wetlands that seasonally remain inundated for periods of two months or longer. Temporary impact areas, including access routes and staging areas, will also be positioned outside of these areas. If maintenance work or associated temporary impact areas are close to one of these habitats (less than 20 feet), the boundary of the work area in proximity to the sensitive habitat must be marked with Environmentally Sensitive Area (ESA) high visibility orange fencing to prevent maintenance equipment or personnel from entering the protected habitat.

Mitigation Measure BIO-8

Impacts to elderberry shrubs will be avoided during maintenance activities. Where feasible, ground disturbing activities will not encroach within 20 feet of the dripline of an elderberry. The area around elderberry shrubs to be avoided will be marked with ESA high visibility orange fencing prior to construction activities.

Herbicides will not be used within the dripline of an elderberry. Insecticides will not be used within 98 feet of an elderberry. All chemicals will be applied using a backpack sprayer or similar direct application method.

Weed removal within the dripline of elderberry shrubs will be conducted outside of the VELB adult flight season (August 1 to February 28). If trimming of an elderberry is required, then trimming will be limited to the period of November 1 through February 28 and will avoid the removal of any branches or stems greater than one inch in diameter. Any trimming required beyond these stipulations will be conducted after consultation with USFWS.

Mitigation Measure BIO-9

Structures will be assessed for occupation prior to the initiation of maintenance work. Trees will be assessed for bat occupation/habitat potential prior to any tree removal or trimming. All bat occupation surveys will be completed by a CDFW-approved Designated Biologist.

If trees requiring removal are determined to be potential bat habitat, then tree removal will be conducted over two days using a two-step method. The first step, conducted on the first day, will involve removal of all non-bat habitat trees and trimming of major branches of bat habitat trees. The objective of the first step in two-step tree removal is to alter the habitat such that it becomes unsuitable for bats without directly impacting individuals. The second step of tree removal will be conducted on the second day and will include close inspection of the tree by a qualified biologist and, if determined to be unoccupied, full removal of the tree.

If maintenance activities on bridges or other structures must occur within or immediately adjacent to bat occupied habitat, a CDFW-approved bat biologist must develop an exclusion plan and submit it to CDFW for review and approval no later than 10 days prior to the start of work. Bat exclusions must be installed prior to the pupping season of April 15 – August 31 under the supervision of a CDFW-approved bat biologist experienced in bat exclusion. Exclusion devices should be inspected a minimum of once per week by a CDFW-approved bat biologist to ensure the devices are effective.

Mitigation Measure BIO-10

Prior to routine maintenance activities occurring on mountainous streams at elevations about 5,500 feet, then a biologist will conduct a focused survey for Sierra Nevada mountain beaver prior to construction. If the work area is determined to be occupied by the Sierra Nevada mountain beaver, the County will develop a Sierra Nevada mountain beaver avoidance plan for CDFW approval prior to construction, including protective measures such as biological monitoring as necessary.

Mitigation Measure BIO-11

Prior to routine maintenance projects within potential rare plant habitat, pre-construction rare plant surveys will be required. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which rare plant surveys are required. If there is suitable habitat for rare plants present ("suitable habitat" for rare plants is defined as any natural vegetation community, excluding agricultural, ornamental, urban, developed, or barren habitat types), then rare plant surveys will be conducted by a biologist or botanist during the appropriate blooming period for the required survey species. The required survey species will be determined based on the location of the maintenance activity, see below (Appendix B: Figure 5).

Sacramento Valley Geographic Subdivision: Survey Area 1

Survey Species: Adobe-lily, Ahart's dwarf rush, Ahart's paronychia, Brazilian watermeal, Butte County golden clover, Butte County meadowfoam, Ferris' milk-vetch, Greene's tuctoria, Hairy Orcutt grass, Hoover's spurge, Red Bluff dwarf rush, Sanford's arrowhead, slender Orcutt grass, woolly rose-mallow

Cascade Range Foothills Geographic Subdivision: Survey Area 2

Survey Species: Adobe-lily, Ahart's dwarf rush, Ahart's paronychia, Butte County checkerbloom, Butte County fritillary, Butte County meadowfoam, California beaked-rush, California satintail, dissected-leaved toothwort, flagella-like atractylocarpus, Red Bluff dwarf rush, white-stemmed clarkia, woolly rose-mallow

Northern Sierra Nevada Foothills Geographic Subdivision: Survey Area 3

Survey Species: Adobe-lily, Ahart's buckwheat, Ahart's paronychia, brownish beaked-rush, Butte County checkerbloom, Butte County fritillary, Butte County golden clover, Butte County meadowfoam, California satintail, dissected-leaved toothwort, Greene's tuctoria, Hoover's spurge, Jepson's onion, Lewis Rose's ragwort, Mildred's clarkia, Mosquin's clarkia, pink creamsacs, Red Bluff dwarf rush, veiny monardella, white-stemmed clarkia, woolly rose-mallow

High Cascade Range Geographic Subdivision: Survey Area 4

Survey Species: Ahart's buckwheat, broad-nerved hump moss, Butte County fritillary, Davy's sedge, dissected-leaved toothwort, English sundew, flat-leaved bladderwort, Hall's rupertia, Jepson's onion, Lewis Rose's ragwort, long-leaved starwort, long-stiped campion, Mildred's clarkia, Mingan moonwort, mud sedge, scalloped moonwort, water bulrush, western goblin, white-stemmed clarkia

Northern High Sierra Nevada Geographic Subdivision: Survey Area 5

Survey Species: Ahart's buckwheat, brownish beaked-rush, Butte County fritillary, Cantelow's Lewisia, Caribou coffeeberry, Clifton's eremogone, closed-throated beardtongue, dissected-leaved toothwort, fern-leaved monkeyflower, Henderson's bent grass, Jepson's onion, Lewis Rose's ragwort, Mildred's clarkia, minute pocket moss, Mosquin's clarkia, Sanford's arrowhead, Sierra arching sedge, Sierra blue grass, upswept moonwort, white-stemmed clarkia

Survey results will be submitted to CDFW as an attachment to the VRFs. Rare plant populations discovered onsite will be protected in place with orange ESA fencing.

Mitigation Measure BIO-12

If wildlife is encountered during maintenance activities, work will stop within the area until the animal leaves of its own accord or the animal is relocated by a qualified biologist. If special status wildlife is encountered during maintenance activities, work will stop within the area and CDFW will be contacted to determine appropriate avoidance measures.

Mitigation Measure BIO-13

Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.

Mitigation Measure BIO-14

Prior to arrival at the project site, the County must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.

Mitigation Measure BIO-15

Soil disturbance and vegetation trimming/removal will be limited to the minimum area necessary to complete maintenance activities. When feasible, existing vegetation will be protected in place and stumps of removed trees will be left intact to allow the tree to stump sprout and quickly regenerate the habitat.

Where ground disturbance occurs, the surface of temporarily impacted riparian and wetland habitat will be regraded and restored to pre-maintenance contours (if applicable). Site restoration with

container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.

Mitigation Measure BIO-16

Permanent impacts are defined as actions that result in a permanent modification to wetlands, stream channels, or riparian habitats (e.g. new impervious cover, rock slope protection, placement of fill). Mitigation will be calculated based on the area of impact. The County will mitigate for permanent impacts to CDFW jurisdictional habitats by either creating or enhancing habitat areas within the County or purchasing suitable mitigation credits from a CDFW approved mitigation bank. Habitat creation or enhancement projects will be located on property owned by the County or CDFW, designated open space, or existing conservation land to minimize conflict with alternative land uses.

Mitigation sites will be monitored for a period of 5 years. A mitigation site will be deemed successful if it meets success standards for plant survivability and non-native cover. If success criteria are not met, corrective actions including supplemental planting, watering, or weeding may be required. Success criteria will be determined in consultation with CDFW during the preparation of an HMMP that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA.

1.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Environmental Setting

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the "archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses" (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, subd. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Regulatory Setting

The CEQA Guidelines Section §15064.5(a) and the Public Resources Code 5024(a)(b) and (d) require consideration of potential project impacts to "unique" archaeological sites that do not qualify as historical resources. The statutory requirements for unique archaeological sites that do not qualify as historical resources are established in Public Resources Code Section 21083.2. These two Public Resources Code sections operate independently to ensure that significant potential impacts on historical and archaeological resources are considered as part of a CEQA project's environmental analysis. Historical resources, as defined in the CEQA regulations, include:

1) Cultural resources listed in or eligible for listing in the California Register of Historical Resources (California Register);

2) Cultural resources included in a local register of historical resources;

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in one of several historic themes important to California history and development.

Under CEQA, a project may have a significant effect on the environment if the project could result in a substantial adverse change in the significance of a historical resource, meaning the physical demolition, destruction, relocation, or alteration of the resource would be materially impaired. This would include any action that would demolish or adversely alter the physical characteristics of a historical resource that conveys its historic significance and qualify it for inclusion in the California Register or in a local register or survey that meets the requirements of Public Resources Code Section 5020.1(l) and 5024.1(g). Public Resources Code Section 5024 also requires state agencies to identify and protect state-owned resources that meet National Register of Historic Place (National Register) listing criteria. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Office before altering, transferring, relocation, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks. Also, CEQA and the CEQA Guidelines also recommend provisions be made for the accidental discovery of archaeological sites, historical resources, or Native American human remains during construction (Public Resources Code Section 21083.2(i) California Code of Regulations Section 15064.5[d and f]).

Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated.

A records search conducted at the Northeast Information Center on November 14, 2022 and archival research did not identify any resources listed on the National Register of Historic Places or on the California Register of Historic Places within the proposed Project Area.

While there are historic-era built environment resources located within the project area, overall, RMA activities consist of minor or small efforts to restore and/or maintain existing facilities so that they can function as originally intended. Furthermore, they generally occur either above ground or involve driving on surfaces, disturbance of previously disturbed areas, or minor ground disturbance in active channels. As such, *the majority* of RMA activities typically would not result in significant impacts to historic-era built environment resources as these activities would not alter any character defining features of these resources; however, there are some historic-era built environment resources which could be significantly impacted by the proposed RMA activities, which include culverts, concrete lined channels, and bridges.

Culverts are considered non-significant resources as they are a ubiquitous and utilitarian resource type that has been extensively documented and analyzed throughout both California and the United States of America. Due to their ubiquitous and utilitarian nature, they are not considered eligible for listing on the California Register of Historical Resources, for the purposes of this project; therefore, their involvement in RMA activities would not require further cultural resources efforts. Concrete lined channels and bridges, however, are considered potential significant resources and would require evaluation/assessment if the County determined that the concrete lining of a channel required demolition or a bridge needed to be replaced or undergo repairs to their structural components beyond those outlined in the RMA activities.

As stated, while the majority of RMA activities *do not* have the potential to harm significant cultural resources, some activities, however, *do* have the potential to harm historical or archaeological resources if the appropriate mitigation measures are not followed. For the RMA activities listed below, the County must first consult an archaeologist who meets the Secretary of the Interiors Professional Qualification Standards in Archaeology to determine measures to proceed, as stated in CUL-1:

- Work beyond the slope of the channel that involves grading deeper than 6" or vegetation removal
- Open trenching
- Convert existing concrete-lined channels to a more natural state
- Root/stump removal

Additionally, RMA activities may involve minor geotechnical and/or cultural resources investigations as part of advancing RMA project foundation design and/or testing for sub-surface cultural resource sensitivity. For cultural resource XPI investigations, implementation of measure CUL-2 requires notification of Native American Tribes and opportunity for their participation in these efforts. Adherence to mitigation measures CUL-1 through CUL-8 would ensure the project shall not impact the significance of an historical or archaeological resource.

Please see Section 1.18 for a more detailed discussion of indigenous/Tribal Cultural Resources, which will require additional avoidance, minimization, and/or mitigation measures.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated.

While there are historic-era built environment resources located within the project area, overall, RMA activities consist of minor or small efforts to restore and/or maintain existing facilities so that they can function as originally intended. Furthermore, they generally occur either above ground or involve driving on surfaces, disturbance of previously disturbed areas, or minor ground disturbance in active channels. As such, *the majority* of RMA activities typically would not result in significant impacts to historic-era built environment resources as these activities would not alter any character defining features of these resources; however, there are some historic-era built environment resources which could be significantly impacted by the proposed RMA activities, which include culverts, concrete lined channels, and bridges.

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- Work beyond the slope of the channel that involves grading deeper than 6" or vegetation removal
- Open trenching

- Convert existing concrete-lined channels to a more natural state
- Root/stump removal

Additionally, RMA activities may involve minor geotechnical and/or cultural resources investigations as part of advancing RMA project foundation design and/or testing for sub-surface cultural resource sensitivity. For cultural resource XPI investigations, implementation of measure CUL-2 requires notification of Native American Tribes and opportunity for their participation in these efforts. Adherence to mitigation measures CUL-1 through CUL-8 would ensure the project shall not impact the significance of an historical or archaeological resource.

Please see Section 1.18 for a more detailed discussion of indigenous/Tribal Cultural Resources, which will require additional avoidance, minimization, and/or mitigation measures.

Potential impacts to archeological or historical resources would be *Less Than Significant with Mitigation Incorporated*.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation Incorporated.

After a review of historic maps, aerials, data from the North Central Information Center, and consultation with Native American Tribal Governments familiar with the Project area, no known burial sites or cemeteries exist within the streams and channels where routine maintenance activities would occur. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. Further provisions of PRC 5097.98 are to be followed as applicable. Implementation of Mitigation Measure CUL-8 would reduce this potential impact to *Less Than Significant With Mitigation Incorporated*.

Mitigation Measures

Mitigation Measure CUL-1

In routine maintenance areas, if activities consisting of 1) work beyond the slope of the channel that involves grading deeper than 6" or vegetation removal, 2) open trenching, 3) converting existing concrete-lined channels to a more natural state, or 4) root/stump removal are anticipated, the County must first consult with an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology to determine measures to proceed.

Mitigation Measure CUL-2

Routine maintenance activities may require an XPI cultural resources investigation for the presence of a previously unanticipated resource, which requires notification of Native American Tribes and opportunity for participation. Should a resource be identified, the activity would no longer be considered a RMA covered activity if avoidance of the resource is not possible.

Mitigation Measure CUL-3

Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area have elevated sensitivity for indigenous cultural resources. Due to this sensitivity, the County will develop an Indigenous Resource Notification Protocol and Treatment Plan (Plan) in coordination with the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects. This Plan will detail how the County, for each RMA activity, will 1) contact the Tribal communities prior to proposed RMA activity, 2) inquire if any protection in place treatment is needed, 3) allow opportunity for Tribal survey or visitation prior to RMA activity, and 4) detail treatment recommendations for any indigenous resources discovered during implementation of any RMA activity.

Mitigation Measure CUL-4

The County, in coordination with Mooretown Rancheria, will provide County leadership involved with maintenance projects covered by the RMA with Cultural Resource Awareness Training. Training will be provided annually, and as new staff are hired.

Mitigation Measure CUL-5

The Konkow Valley Band of Maidu and the Mooretown Rancheria will be provided the opportunity to monitor the proposed RMA work. Notification protocol for contacting the Tribal communities will be detailed in the Indigenous Resource RMA Notification Protocol and Treatment Plan (Plan), included as CUL-3.

Mitigation Measure CUL-6

Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area are used for gathering plant resources. If post-maintenance seeding is required, as part of the notification process specified in CR-1, the Tribe will be asked what resource plant species should be included in the seed mix. These species will be included in the seed mix if ecologically appropriate for the location (e.g. locally native with suitable vegetation community, elevation, & soil type).

Mitigation Measure CUL-7

If an archaeological cultural resource is discovered during implementation of any RMA activity, ground disturbing activities shall be suspended 100 feet around the discovery. An archaeologist, who meets the Secretary of Interior Standards in Archaeology, shall assess the discovery. If the discovery involves indigenous resources, the County will contact the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects to assist in assessing the significance of the discovery. The archaeologist, the County, and if applicable Native American tribes shall confer regarding the appropriate treatment of the discovery. Work shall not resume in the area until treatment has been completed or it has been determined by the archaeologist and/or Tribal representative that the archaeological cultural resource is not significant.

Mitigation Measure CUL-8

If human remains are encountered, State Health and Safety Code § 7050.5 states that no further disturbance shall occur until the Butte County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code § 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Butte County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in PRC § 5097.98.

1.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. The project consists of routine maintenance activities and will not result in any new development or structures which would create new energy consumption. The project would use energy resources for the operation of vehicles and equipment associated with the construction of the project but only for short periods. Overall, due to the average energy requirements of the maintenance activities and stringent state and federal regulations on engine and fuel efficiency, the project would be expected to result in a *Less Than Significant Impact* in relation to energy consumption. No mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less Than Significant Impact. The routine maintenance activities would not result in wasteful or inefficient consumption of water and energy consumption. The goal of the routine maintenance of existing stream channels and drainage facilities is to avoid excessive energy and water needs in the future. The aim of the maintenance activities is to repair and maintain existing facilities and habitat so that further expenses of energy is not needed in the future. Due to the nature of the project, there would be a *Less Than Significant Impact* on the state or local plan for renewable energy or energy efficiency. No mitigation is required.

1.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal	☐	☐	☐	☒

	systems where sewers are not available for the disposal of waste water?				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No Impact. The Cleveland Hill fault is the only active fault within the County identified in the most recent Alquist-Priolo Earthquake Fault Zoning Map. The fault is located in the Bangor Quad, approximately four miles southeast of the City of Oroville. Routine maintenance activities would not cause a surface rupture, as most activities would be done on or close to ground level. Potential below ground activities such as geotechnical borings would require establishing boreholes underground that would not be of a size significant enough to result in fault ruptures. Therefore, the project would result in *No Impact*. No mitigation is required.

ii) Strong seismic ground shaking?

No Impact. There is a low potential for ground shaking to occur due to the earthquake potential of the active fault. The project's proposed routine maintenance activities would not involve the construction of new structures that will be occupied by people and all activities would be implemented on existing habitats and structures. Therefore, the project would result in *No Impact*. No mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

No Impact. According to Butte County General Plan 2030, areas that are at risk for liquefaction are located on the valley floor, especially near the Sacramento and Feather Rivers, and their tributaries, which have a higher potential to contain sandy and silty soils. Large areas in the west and southwestern parts of the County have been determined to have a moderate to high potential for liquefaction. However, the proposed routine maintenance activities would not include constructing new buildings and facilities and would only be implemented on existing habitats and structures within the County's streams, creeks, and drainages. As such, there would be low potential for seismic-related ground failure. Therefore, there would be *No Impact* related to seismic-related ground failure. No mitigation is required.

iv) Landslides?

No Impact. According to Butte County General Plan 2030, the northern, eastern, and southeastern areas of the County have been determined to have moderate to high potential of landslides. However, the routine maintenance activities would be performed on existing

habitats and structures within the County's creeks and drainages. Therefore, maintenance activities would not create a risk of landslides. There is *No Impact* on landslides. No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. According to Butte County General Plan 2030, the northern, eastern, and southeastern areas of the County have been determined to have moderate to high potential of erosion. Routine channel maintenance activities could disturb land and result in some soil and sediment removal, cut and fill, debris and obstruction removal, and other ground disturbing activities. However, as described in the project description, among the main objectives of the proposed project is to perform tasks such as bank stabilization, and repair of previous erosion control work which would be performed to improve water flow and minimize erosion concerns under the existing conditions. In addition, work included in routine channel maintenance activities would minimize soil and habitat disturbances through use of small construction equipment or hand tools used in the channel or on the channel banks. The proposed project would be limited to the minimum amount of fill or sediment removal that can occur below the OHWM at any single location. Standards BMPs would be implemented during project activities to minimize erosion. In addition, should gunite be used, it will only be used at locations where it will not enter or be washed into a stream. Due to preventative practices and the nature of the routine maintenance activities, the project would result in a *Less Than Significant Impact.* No mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. According to the Butte County General Plan 2030, the County contains areas with moderate to severe potential for landslides. However, the routine maintenance in this project would not involve the construction of buildings or structures. Therefore, there is no potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. *No Impact* would result from routine maintenance. No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

No Impact. According to Butte County General Plan 2030, soils of high expansion potential typically occur in Sacramento Valley's level regions. The routine maintenance of the project will be performed in proximity to stream and riparian habitat, locations that have been determined to have soil that has no or low expansion potential. Additionally, the project would not build any new structures that would be located on or affected by expansive soils. *No Impact* would result from routine maintenance. No mitigation is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed project would not use a septic tank system. Sewage collection and disposal is not required for routine channel maintenance activities. Therefore, *No Impact* on soils related to the use of septic tanks would occur. No mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant With Mitigation Incorporated. The possibility of a paleontological discovery is unlikely because project maintenance activities are largely limited to above ground maintenance or stream sediment removal from very recent deposits. However, there is a possibility of unanticipated and accidental paleontological discoveries during ground-disturbing project-related activities. According to the Butte County General Plan 2030, Butte County has been determined to have relatively high prehistoric archaeological sensitivity, especially near waterways. Unanticipated and accidental paleontological discoveries during project implementation could have the potential to affect paleontological resources. If paleontological resources are found, all work in the area would stop until a qualified paleontologist completes a determination of their significance as detailed in Mitigation Measure CUL-1. Impacts to unique paleontological or geological features will be *Less Than Significant With Mitigation Incorporated*.

1.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Environmental Setting

The Butte County Climate Action Plan (CAP) was adopted on December 14, 2021. The Butte County CAP provides goals, policies, and programs to reduce greenhouse gas (GHG) emissions, address climate change adaptation, and improve quality of life in the County. The Butte County CAP also supports statewide GHG emission-reduction goals identified in Assembly Bill (AB) 32 and Senate Bill (SB) 375. Programs and actions in the CAP are intended to help the County sustain its natural resources, grow efficiently, ensure long-term resiliency to a changing environmental and economic climate, and improve transportation. The Butte County CAP also serves as a Qualified GHG Reduction Strategy under CEQA, simplifying development review for new projects that are consistent with the CAP.

A 2006 baseline GHG emission inventory was prepared for unincorporated Butte County. The inventory identified the sources and the amount of GHG emissions produced in the county. The 2021 CAP contains GHG inventories for community-wide and County operations sources. Both the community-wide and County operations GHG inventories include the years 2006 and 2019. The 2006 GHG inventories were updated to take into account the latest science in GHG accounting, new best practices, and updated emissions factors. The community-wide inventory assesses emissions produced by the agriculture, transportation, energy, solid waste, off-road equipment, water and wastewater and stationary source sectors, as well as emissions associated with wildfires and controlled burns and emissions reductions attributable to biomass sequestration. The leading contributors of GHG emissions in Butte County are agriculture (50%), transportation (23%), and residential energy (9%). The Butte County's 2014 CAP established a GHG emission reduction target of 15 percent below 2006 levels by 2020, consistent with the guidance for local governments in the first Climate Change Scoping Plan. The reduction standards established by the 2021 CAP are focused on per-capita emissions which are 6.0 MTCO2e per person by 2030 and 2.0 MTCO2e per person by 2050 which is consistent with statewide goals.

The CAP adopted by the County provides a framework for the County to reduce GHG emissions while simplifying the review process for new development. Measures and actions identified in the CAP lay the groundwork to achieve the adopted General Plan goals related to climate change, including reducing GHG emissions to meet per-capita standards referenced above. New projects are evaluated to determine consistency with the CAP and to identify which GHG emission reduction measures would be implemented with project approval.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Although the proposed project would contribute to GHG levels during implementation, routine maintenance activities would only have short-term, negligible GHG emissions as a result of the construction equipment and worker vehicles. The project would result in *Less Than Significant Impact* on GHG emissions. No mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The routine maintenance activities would not emit significant levels of GHG as worker vehicles would be limited to the minimum levels necessary. The activities would abide by the County's adopted CAP. The project would result in *No Impact* on applicable plans, policies, or regulations. No mitigation is required.

1.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

No Impact. The routine maintenance activities would not require any transport, use, or disposal of hazardous materials. While gasoline would be required for power tools, it would not be transported in more than reportable quantities (55 gallons). Herbicides would be applied in a manner consistent with the recommendations of the California Department of Pesticide Regulation, and the County would not utilize rodenticides. The project would result in *No Impact*. No mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

No Impact. The County would prevent chemicals, paint, oil, gas, other petroleum products, and other substances that could be deleterious to aquatic life from contaminating the soil and/or entering waters of the state by immediately removing the hazardous material from any place where it could enter waters, containing any releases or spills of such materials, maintaining vehicles reasonably free of external petroleum residue, and locating staging and storage areas away from the stream and wetland zones. Those activities involving hazardous materials would be required to comply with all local, state, and federal standards associated with the handling of hazardous materials. The project would result in *No Impact*. No mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. While there are several schools in the County within a one-mile radius of stream channels where routine maintenance projects may be implemented, the routine maintenance activities would not involve the use or handling of any hazardous or acutely hazardous materials, substances, or waste. Therefore, the project would result in *No Impact* related to hazardous emissions within one-quarter mile of existing or proposed schools. No mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

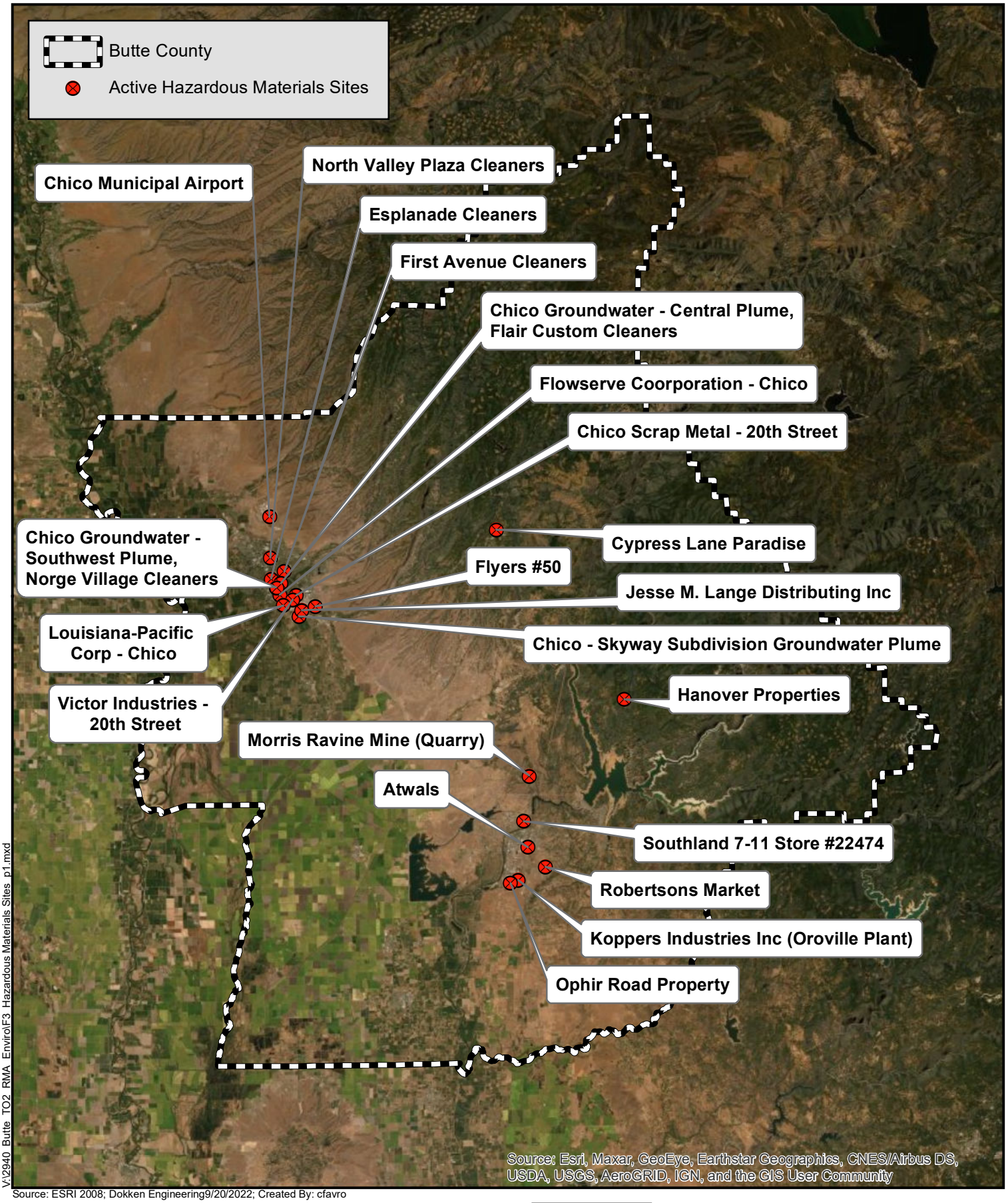
No Impact. The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to annually update the Cortese List. The California Department of Toxic Substances Control (CDTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. EnviroStor Database is compiled by the CDTSC to identify and track potential hazardous waste sites. Searches of the above resources identified 23 active sites (CDTSC 2022) within the County limits known to handle and store hazardous materials and are associated with a hazardous material related release or occurrence (Appendix E. Hazardous Waste Records Search Results; Table 8. Butte County Active Hazardous Site List; Figure 4. Active Hazardous Materials Sites).

The routine maintenance activities would occur along creeks, basins, and drainages. No potential project activities will occur at the active hazardous materials sites listed in Table 8. The active site that is nearest to proposed routine maintenance activities is the Jesse M. Lange Distributing Inc. in Chico, which is over 700 feet away from a tributary to Butte Creek where routine maintenance may occur (CDTSC 2022). *No Impact* would result from the project. No mitigation is required.

Table 8. Butte County Active Hazardous Site List

Site/Facility Name	Estor/Epa Id	Program Type	Status	Street Address	City	Distance from Routine Maintenance Area (miles)
Atwals	T0600766902	Lust Cleanup Site	Open - Site Assessment	1920 B Street	Oroville	1.2
Chico - Skyway Subdivision Groundwater Plume	4880002	State Response	Active - Land Use Restrictions	Hagen Lane/Skyway Avenue	Chico	0.5
Chico Groundwater - Central Plume	4990003	State Response	Active	Chico Area Groundwater	Chico	0.7
Chico Groundwater - Southwest Plume	4990002	State Response	Active - Land Use Restrictions	Chico Area Groundwater	Chico	1.2
Chico Municipal Airport	4450006	State Response	Active - Land Use Restrictions	651 & 681 Liberator Street	Chico	1.3
Chico Scrap Metal - 20th Street	60000800	State Response	Active	878 East 20th Street	Chico	0.4
Cypress Lane Paradise	T10000013352	Lust Cleanup Site	Open - Site Assessment	1620 Cypress Lane	Paradise	2.1
Esplanade Cleaners	4720001	State Response	Active	164 E 2nd Ave	Chico	1.2
First Avenue Cleaners	4720002	State Response	Active	1082 East 1st Avenue	Chico	1.6
Flair Custom Cleaners	4720003	State Response	Active	660 Mangrove Ave	Chico	0.7
Flowserve Corporation - Chico	60001983	State Response	Active	844 Broadway Street, APN 004-285-002-000	Chico	0.7

Site/Facility Name	Estor/Epa Id	Program Type	Status	Street Address	City	Distance from Routine Maintenance Area (miles)
Flyers #50	T0600776104	Lust Cleanup Site	Open - Assessment & Interim Remedial Action	2501 Notre Dame Blvd	Chico	0.7
Hanover Properties	817900	Privately-Owned Business	Active	Pritchett Drive	Berry Creek	0.3
Jesse M. Lange Distributing Inc	T0600700129	Lust Cleanup Site	Open - Site Assessment	11226 Midway Avenue	Chico	0.1 (740 feet)
Koppers Industries Inc (Oroville Plant)	4240001	Federal Superfund - Listed	Certified / Operation & Maintenance - Land Use Restrictions	Baggett-Marysville Road	Oroville	0.8
Louisiana-Pacific Corp - Chico	4240002	State Response	Certified / Operation & Maintenance - Land Use Restrictions	West 16th Street	Chico	0.4
Morris Ravine Mine (Quarry)	241466	Privately-Owned Business	Active	1324 Cherokee Road	Oroville	0.2
Norge Village Cleaners	4720004	State Response	Certified / Operation & Maintenance - Land Use Restrictions	254 East First Street	Chico	1.2
North Valley Plaza Cleaners	4720005	State Response	Active	801 East Avenue	Chico	1.8
Ophir Road Property	60000689	State Response	Active	APNs 078-010-006, 078-010-038	Oroville	1.1
Robertsons Market	T0600700235	Lust Cleanup Site	Open - Eligible for Closure	5291 Lower Wyandotte Rd	Oroville	0.1 (760 feet)
Southland 7-11 Store #22474	T0600700115	Lust Cleanup Site	Open - Eligible for Closure	98 Table Mountain Blvd	Oroville	0.3
Victor Industries - 20th Street	4360003	State Response	Active - Land Use Restrictions	365 E 20th St	Chico	0.3



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Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

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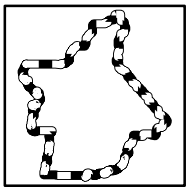

FIGURE 4
Active Hazardous Materials Sites
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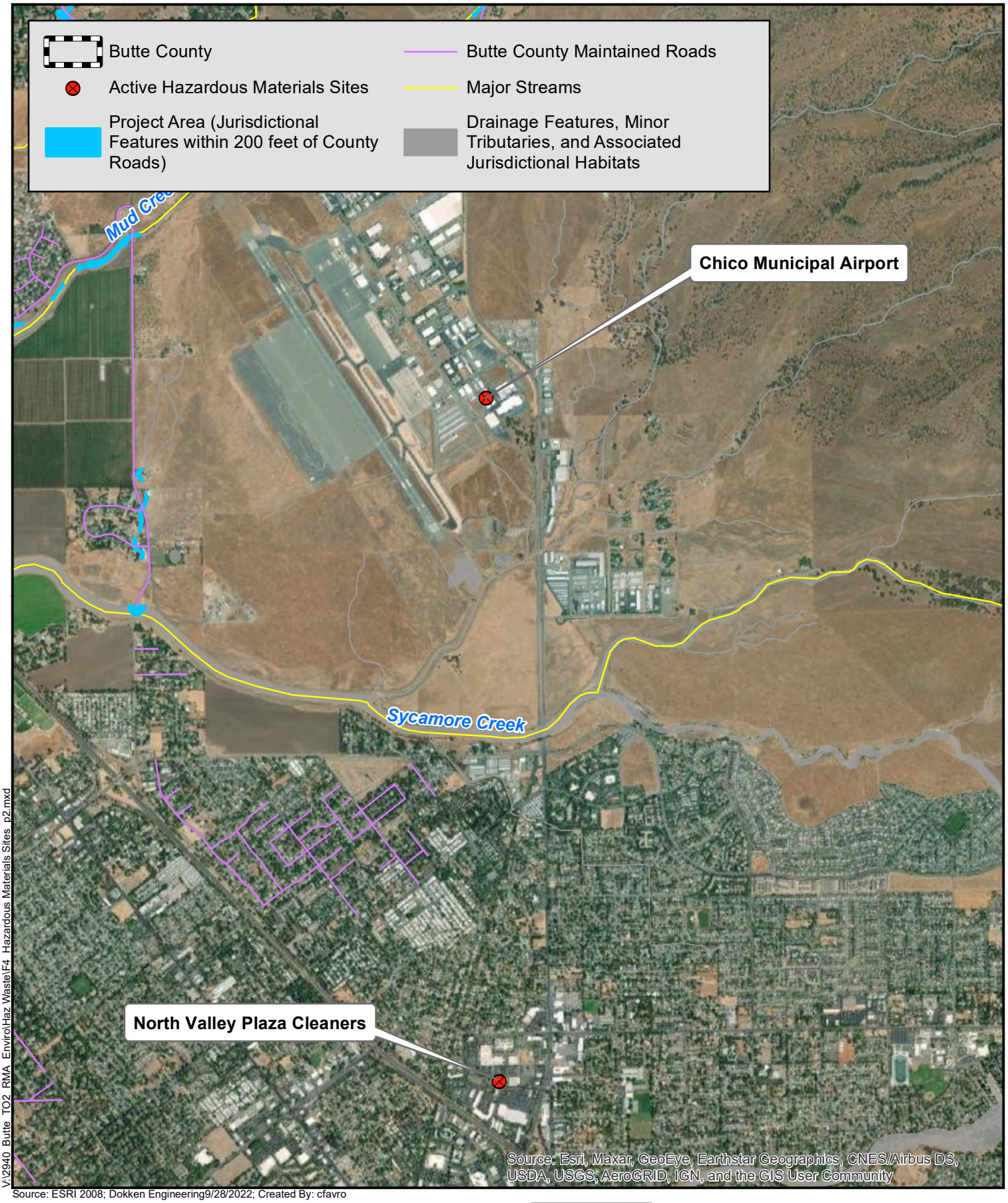

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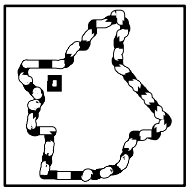

FIGURE 4
Active Hazardous Materials Sites
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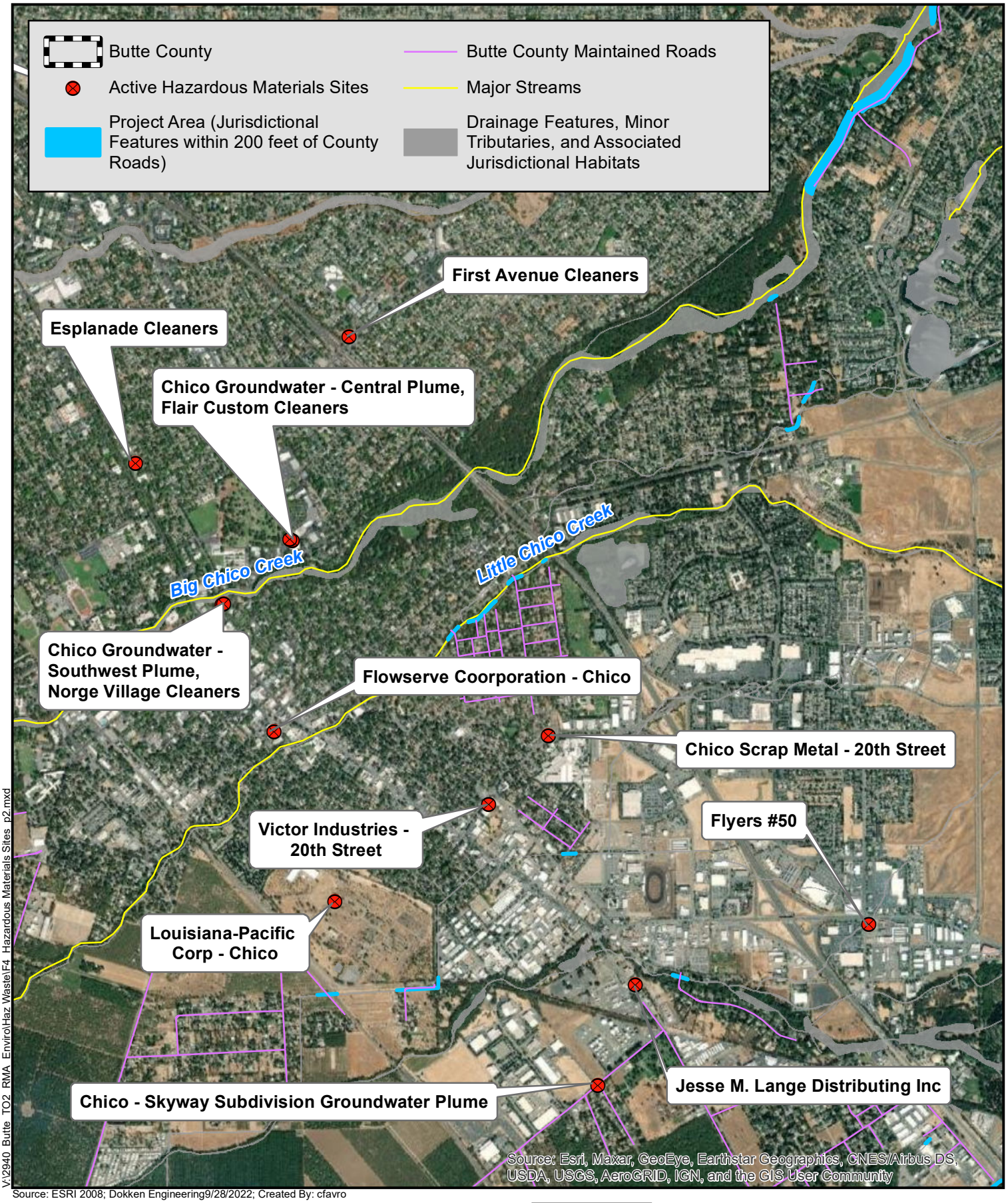

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FIGURE 4
Active Hazardous Materials Sites
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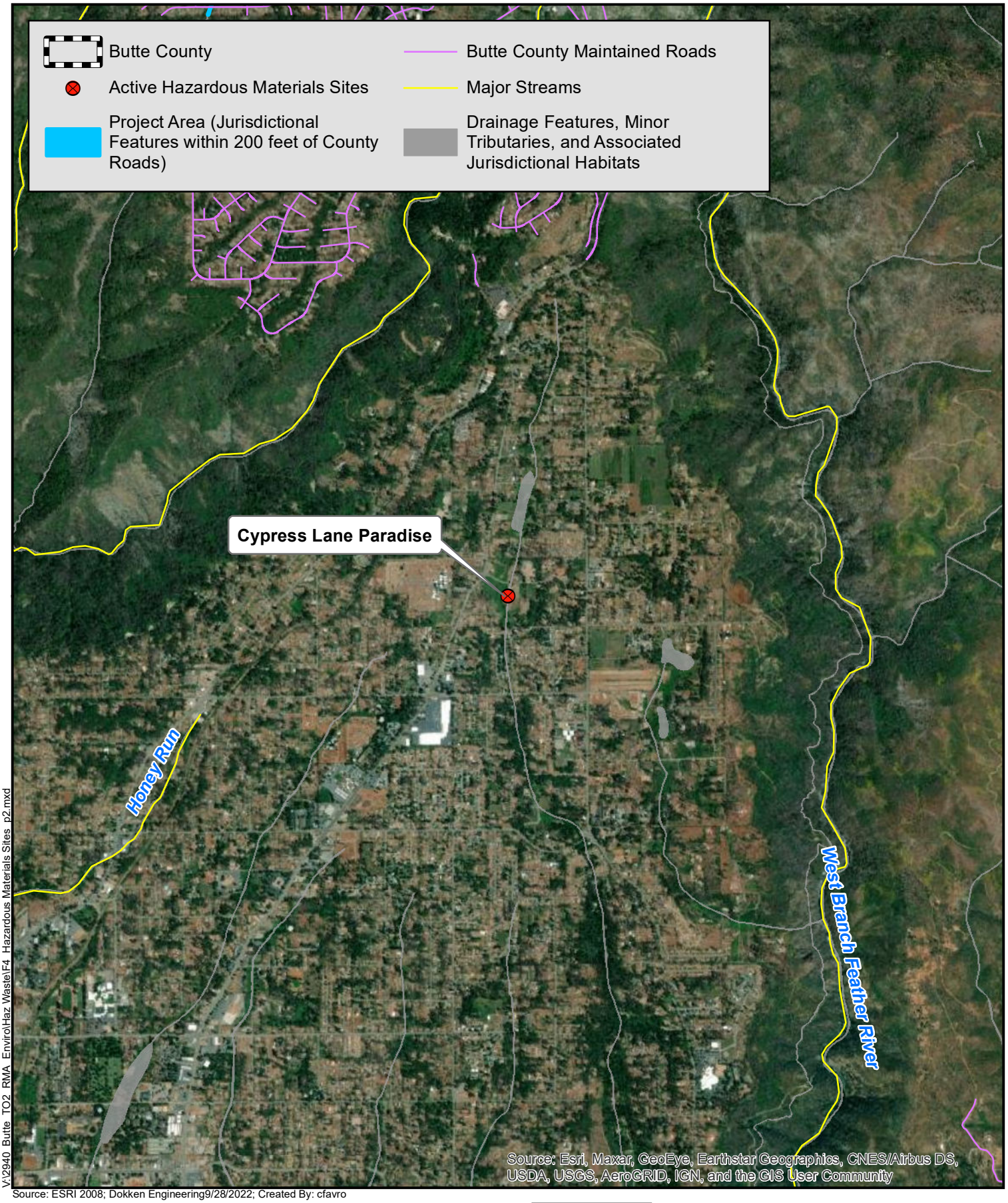

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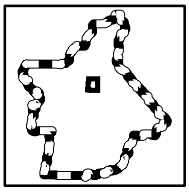

FIGURE 4
Active Hazardous Materials Sites
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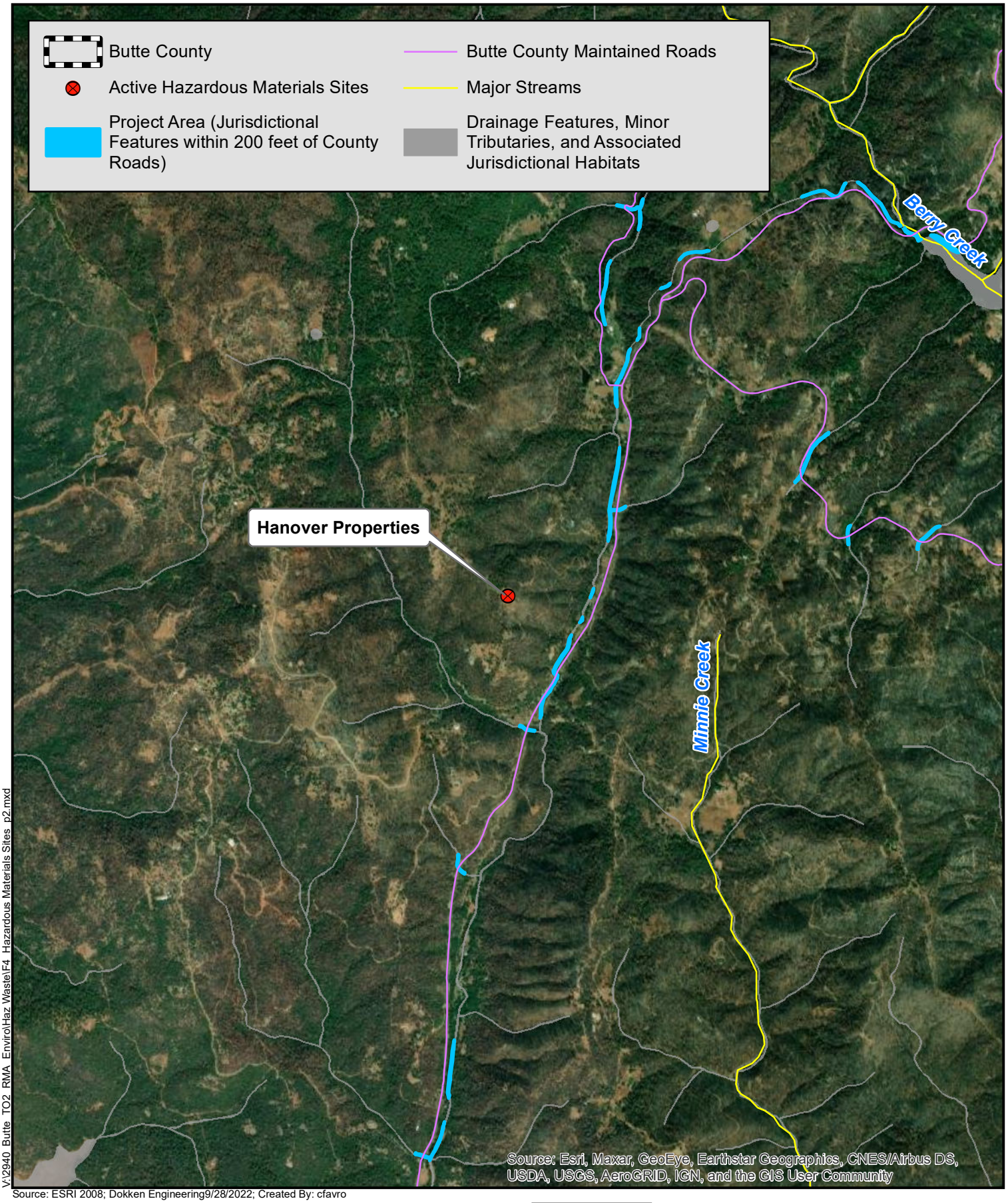

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FIGURE 4
Active Hazardous Materials Sites
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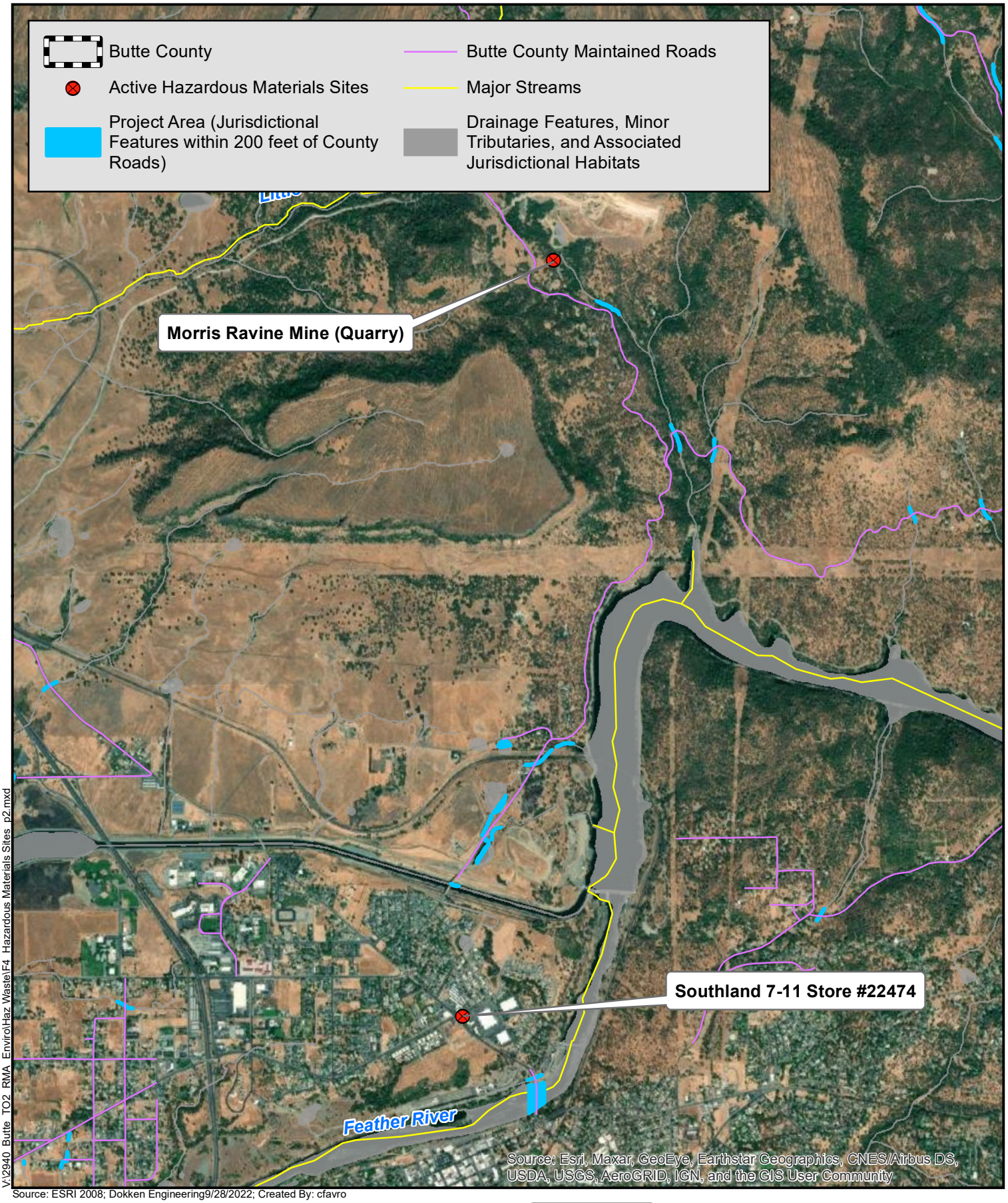

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FIGURE 4
Active Hazardous Materials Sites
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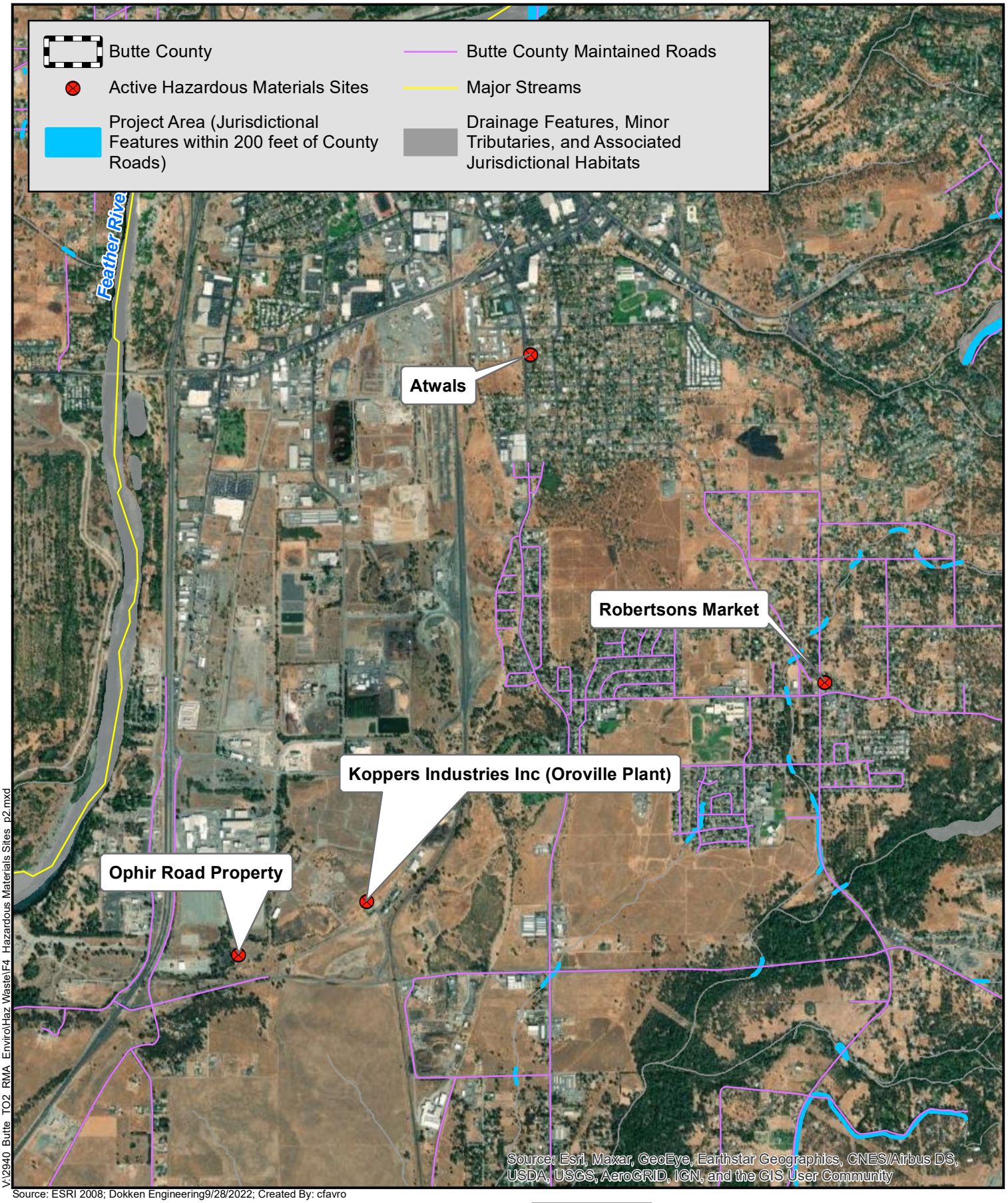

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Source: ESRI 2008; Dokken Engineering9/28/2022; Created By: cfavro

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FIGURE 4
Active Hazardous Materials Sites
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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. There are seven airports within the County: Chico Municipal Airport, Johnsen Airport, Oroville Municipal Airport, Paradise Airport, Paradise Skypark Airport, Ranchaero Airport, and Richvale Airport. Several of these airports are within two miles of a stream or a creek. The project's proposed activities would be short-term maintenance activities limited to existing facilities located on or near the banks of streams and creeks. Therefore, the routine maintenance activities would not result in a safety hazard or excessive noise for people residing or working in the project area. The project would result in *No Impact* related to safety hazard or excessive noise for people residing or working in the project area. No mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project involves routine maintenance activities which would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, *No Impact* would result from development of the proposed project. No mitigation is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. According to Cal Fire, the County contains Moderate to Very High Fire Hazard Severity Zones. The proposed routine maintenance activities would not present conditions that are subject to wildland fires. Proposed routine maintenance activities may include fire fuel reduction activities which would reduce the risk for wildland fires within the County. There is no potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, *No Impact* would result from proposed maintenance activities. No mitigation is required.

1.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact With Mitigation Incorporated. According to the Butte County General Plan 2030, there is moderate to severe potential for erosion hazards in the eastern regions of the County. The proposed routine maintenance activities would comply with the Butte County Code Chapter 33A, the USACE Section 404 Nationwide 3 Maintenance permit, the County's Design and Construction Standards, the County's Groundwater Management Plan, and the conditions of CDFW RMA.

The County would perform the maintenance work at a time and in a manner that minimizes adverse impacts to fish and wildlife resources and provides for the protection and continuance of those resources. Within anadromous fish species habitat (Sacramento River, Feather River, and tributaries), in-channel work would be limited to the period of June 1 to October 15, when flows are low and precipitation events are unlikely. The County would time all maintenance work with an awareness of precipitation and other events that could increase stream flows and an understanding of the amount of time and materials necessary to implement erosion control measures. The County would cease the maintenance work and implement all reasonable erosion control measures before all storm events. In accordance with Mitigation Measure WQ-1, if a precipitation event of over a quarter of an inch within a 24-hour period occurs during maintenance activities, work will be paused for a 24-hour dry-out period. Routine channel maintenance activities would not violate any water quality standards or waste discharge requirements. Therefore, the proposed project would result in *Less Than Significant Impact With Mitigation Incorporated*.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. No groundwater wells would be drilled as a part of the proposed routine maintenance activities. The project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering of the local groundwater table level. Therefore, the project would result in *No Impact*. No mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less Than Significant Impact. Channel maintenance involves the removal/displacement of silt, sand or sediment in the vicinity of man-made facilities or structures which cause an obstruction to the channel's flow. As a part of this routine maintenance project, temporary stream diversions may be required, which may result in increased erosion and a corresponding increase in siltation within the water. However, any increase in flow velocities due to stream diversions would be temporary. As discussed in response a) above, the proposed project would be required to comply with Butte County Code Chapter 33A, the USACE Section 404 Nationwide 3 Maintenance permit, the County's Design and Construction Standards, the County's Groundwater Management Plan, and the conditions of CDFW RMA, which require erosion control BMPs to be implemented. The project would result in a *Less Than Significant Impact*. No mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

No Impact. The project consists of maintenance in the creek channel to preserve the existing drainage patterns and waterway flows. A substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or offsite would not be anticipated to occur. The project would result in *No Impact*. No mitigation is required.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact. The Butte County General Plan 2030 Water Resource Element contains policies that address stormwater runoff capacity. The routine maintenance activities would not create or contribute runoff water. Through routine channel maintenance activities, the existing and planned storm water drainage systems would be able to accommodate planned and future runoff water. The project would not result in additional polluted runoff. Therefore, the project would result in a *Less Than Significant Impact*. No mitigation is required.

iv) Impede or redirect flood flows?

Less Than Significant Impact. The routine maintenance activities would comply with the policies within General Plan 2030 Water Resource Element that address flood flow capacity. The proposed activities would not impede or redirect flood flows. Therefore, the project would result in a *Less Than Significant Impact*. No mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The County is not located in a region that would be impacted by a seiche, or tsunami. The project would not expose people or structures to flood hazard from severe storm events. *No Impact* would occur under this threshold. No mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The routine maintenance activities would comply with Butte County Code Chapter 33A, the USACE Section 404 Nationwide 3 Maintenance permit, the County's Design and Construction Standards, the County's Groundwater Management Plan, and the conditions of CDFW RMA. By complying with the conditions specified in these documents, routine maintenance impacts to water quality are considered a *Less Than Significant Impact*. No mitigation is required.

Mitigation Measures

Mitigation Measure WQ-1

The County will monitor the National Weather Service 72-hour forecast prior to Project activities. If a precipitation event of over a quarter of an inch within a 24-hour period occurs during maintenance activities, work will be paused for a 24-hour dry-out period.

1.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Environmental Setting

Butte County General Plan

The General Plan represents the basic community values, ideals and aspirations with respect to land use, development, transportation, public services, and conservation policy that will govern Butte County through 2030. The land use element of the general plan designates the land use of areas within the County and includes a description of the characteristics and intensity of each land use category. The land use designation within the County includes Agriculture, Residential, Commercial and Office, Industrial, Public/Quasi-Public, Tribal, and Vacant. The routine maintenance activities in this project may occur within any of these land use designations but will be limited to the immediate area surrounding a stream, creek, or other drainage feature.

Discussion

a) Physically divide an established community?

No Impact. All routine maintenance activities would be implemented within existing drainage ways and facilities. Construction activities would not physically disrupt or divide an established community. The project is anticipated to have *No Impact* on established communities. No mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project would not conflict with any applicable land use plan, policy, or regulation, including the Butte County General Plan 2030. *No Impact* due to conflicts with any land use policy is anticipated. No mitigation is required.

1.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The majority of Butte County's sand and gravel deposits occur in two regions, along the Sacramento River and within a band running from north to south down the center of the County. As a routine maintenance project, the project would not change existing land use or result in loss of available known mineral resources or resources zones. Therefore, the project would have *No Impact* on mineral resources. No mitigation is required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The routine maintenance activities would not result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other long use plan. Therefore, the project would have *No Impact* on mineral resources. No mitigation is required.

1.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

Noise is defined as unwanted sound. It is an undesirable by-product of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB).

According to the Butte County General Plan 2030, noise is a concern throughout Butte County, especially in rural areas and in the vicinity of noise-sensitive uses such as residences, schools, and churches. Noise is discussed in the Health and Safety Chapter of the Butte County General Plan 2030.

Butte County Noise Ordinance

Chapter 41A, Noise Control, of the Butte County Code of Ordinance applies to the regulation of noise. The purpose of the noise ordinance is to protect the public welfare by limiting unnecessary, excessive, and unreasonable noise. Section 41A-7 specifies the exterior noise limits that apply to land use zones within the County.

The Butte County Noise Ordinance provides the County with a means of assessing complaints of alleged noise violations and to address noise level violations from stationary sources. The ordinance includes a list of activities

that are exempt from the provisions of the ordinance. Relevant information related to the exterior and interior noise limits set out by the Butte County Noise Ordinance are included below.

Chapter 41A-9 Exemptions

The following exempted activities identified in Chapter 41A-9 is applicable to the proposed routine maintenance project:

(f) Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property or public works project located within one thousand (1,000) feet of residential uses, provided said activities do not take place between the following hours:

- Sunset to sunrise on weekdays and non-holidays;
- Friday commencing at 6:00 p.m. through and including 8:00 a.m. on Saturday, as well as not before 8:00 a.m. on holidays;
- Saturday commencing at 6:00 p.m. through and including 10:00 a.m. on Sunday; and,
- Sunday after the hour of 6:00 p.m.

When an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work into the hours delineated above and to operate machinery and equipment necessary to complete the specific work in progress until that specific work can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less Than Significant Impact. Noise may be generated during routine maintenance activities by traffic associated with transport of heavy materials and equipment to and from maintenance sites and the use of motorized equipment during routine maintenance activities. Noise sources such as lawn mowers, grass trimmers, chainsaws, bobcats and backhoes could be used as maintenance tools. This noise increase would be of short duration and would occur during daytime hours, from sunrise to sunset, per the County's Noise Ordinance. Examples of noise generating actions involved in maintenance activities would generate maximum noise levels, ranging from 74 to 90 dB at a distance of 50 feet (Table 9. Typical Maximum Construction Equipment Noise Levels). Due to noise production being temporary, the project would result in *Less Than Significant Impact* related to ambient noise levels. No mitigation is required.

Table 9. Typical Maximum Construction Equipment Noise Levels

ID	Type of Equipment	Range of Maximum Sound Level Measured at 50 feet (dBA)
1	Pneumatic Tools	78 to 88
2	Pumps	74 to 84
3	Dozers	77 to 90
4	Tractors	77 to 82
5	Front-End Loaders	77 to 90
6	Hydraulic Backhoes	81 to 90
7	Hydraulic Excavators	81 to 90
8	Graders	79 to 89
9	Air Compressors	76 to 89

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The proposed routine maintenance activities would only require use of small construction equipment (such as excavators, backhoes, dump trucks, and bobcats) that would not generate excessive ground borne vibration or noise levels. All potential noise effects to the environment would be temporary. Therefore, construction-related noise would result in a *Less Than Significant Impact*. No mitigation is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The routine maintenance activities have the potential of being implemented less than five miles away from an airport. However, the construction would only require use of small equipment that would not generate excessive noise levels. Moreover, noise generated from construction work would be temporary; therefore, the project would not expose people residing or working in the project area to excessive noise levels. *No Impact* related to excessive noise level exposure is anticipated. No mitigation is required.

1.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The routine maintenance activities would not affect population and housing as the project would only maintain the design capacity of existing drainage features. Construction activities would not involve construction of additional public roadways or infrastructure such as wastewater treatment facilities. *No Impact* would result from the project. No mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The routine maintenance activities would be implemented on existing streams and channels, and would not directly or indirectly induce population growth, displace housing, or necessitate construction of replacement housing. Therefore, *No Impact* would result from the project. No mitigation is required.

1.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection, police protection, schools, parks, and other public facilities?

No Impact. The project is limited to routine maintenance of existing drainage features and facilities. There may be new construction of erosion control features. However, there would be no construction of any habitable structures or other structures that would require public services or impact the service ratios, response times, and other performance objectives of any service providers. Routine channel maintenance activities would not result in a need for additional public services or substantial adverse physical impacts to construction of new public facilities with respect to fire protection, police protection, schools, parks, or other public facilities. Therefore, *No Impact* would result from development of the proposed project. No mitigation is required.

1.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed routine maintenance activities would not affect recreational facilities in the County as the construction would only affect existing drainage channels and other storm water facilities. The activities would not increase the use of existing neighborhood and regional parks or other recreational facilities. Therefore, the project would result in *No Impact*. No mitigation is required.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The proposed routine maintenance would not affect any existing recreational facilities and no impacts to recreational resources are anticipated. *No Impact* would result from the project. No mitigation is required.

1.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. The proposed routine maintenance activities would not affect the County's plans, ordinances, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, *No Impact* would result from the proposed project. No mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?

No Impact. SB 743 was approved in 2013 and revised the method for assessing transportation impacts under CEQA. The Office of Planning and Research has recommended the use of vehicle miles travelled (VMT) as the required metric to replace the automobile delay-based Level of Service (LOS). The VMT assessment is required to satisfy CEQA guidelines that utilize VMT as the required metric to determine transportation impacts. The VMT assessment is based on the criteria outlined in the *BCAG SB 743 Implementation Study Document* (June 24, 2021). According to the BCAG Implementation Study Document, there are several criteria that can be applied to screen projects from VMT project-level assessments. The purpose is to screen out projects that are presumed to have a non-significant

transportation impact based on the facts of a project and to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743.

The proposed routine maintenance activities would involve maintenance, replacement, safety, and repair projects designed to improve the condition of existing channels and falls under *Project Types Not Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel* (California Department of Transportation, 2020). Thus, the project would have *No Impact* with respect to VMT and no VMT analysis would be required. No mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The design features associated with the proposed project would not increase hazards, considering the routine channel maintenance activities will not result in the development of new roadways. Therefore, there would be *No Impact* on hazards due to a geometric design feature. No mitigation is required.

d) Result in inadequate emergency access?

No Impact. Routine channel maintenance activities would not affect emergency vehicle access. The project would result in *No Impact* on emergency access. No mitigation is required.

1.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☒ Yes		☐ No	
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Environmental Setting

Tribal Cultural Resources are defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe and is either on or eligible for the California Historic Register, a local register, or a resource that the lead agency, at its discretion, chooses to treat as such (Public Resources Code Section 21074 (a)(1)). Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the "archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses" (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, sub. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that

defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less Than Significant Impact With Mitigation Incorporated.

A letter and a map depicting the Project vicinity was sent to the Native American Heritage Commission (NAHC) in West Sacramento, asking the commission to review the Sacred Land Files (SLF) for any Native American cultural resources that might be affected by the Project. The request to the NAHC seeks to identify any Native American cultural resources within or adjacent to the Project area. A list of Native American individuals who might have information or concerns about the Project was also requested. On October 18, 2022, Cameron Vela, Cultural Resource Analyst, informed the County via email that a review of the SLF failed to indicate the presence of Native American cultural resources in the project vicinity.

On November 17, 2022, initial consultation letters were sent to the Native American individuals on the list provided by the NAHC. The letters provided a summary of the Project and requested information regarding comments or concerns the Native American community might have about the Project. Two responses were received. On November 25, 2022, the Konkow Valley Band of Maidu responded that the project lies within the Traditional Territory of the Tribe, that continued consultation was requested, and that the waterways of the project are of elevated sensitivity. On November 30, 2022, the Mooretown Rancheria responded that the Tribe has questions regarding the RMA and requests further consultation on the project.

Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area have elevated sensitivity for indigenous cultural resources. Due to this sensitivity, the County will implement measure CUL-3 which will develop an Indigenous Resource Notification Protocol and Treatment Plan (Plan) in coordination with the Konkow Valley Band of Maidu and the Mooretown Rancheria. This Plan will detail how the County, for each RMA activity, will 1) contact the Tribal communities prior to proposed RMA activity, 2) inquire regarding any protection or treatment action base d on indigenous knowledge, 3) allow opportunity for Tribal survey, visitation, or resource gathering prior to RMA activity, and 4) detail treatment recommendations for any indigenous resources discovered during implementation of any RMA activity.

The County will also implement CUL-4 through CUL-8 to ensure that Cultural Resources Awareness training, opportunity for monitoring, and notification of late discovery or human remains occurs during implementation of all RMA activities.

RMA activities have the potential to harm Tribal Cultural Resources if the appropriate mitigation measures are not followed. Adherence to mitigation measures CUL-4 through CUL-8 would ensure the project shall not impact the significance of a Tribal Cultural Resource.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant Impact With Mitigation Incorporated.

A letter and a map depicting the Project vicinity was sent to the Native American Heritage Commission (NAHC) in West Sacramento, asking the commission to review the Sacred Land Files (SLF) for any Native American cultural resources that might be affected by the Project. The request to the NAHC seeks to identify any Native American cultural resources within or adjacent to the Project area. A list of Native American individuals who might have information or concerns about the Project was also requested. On October 18, 2022, Cameron Vela, Cultural Resource Analyst, informed the County via email that a review of the SLF failed to indicate the presence of Native American cultural resources in the project vicinity.

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Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area have elevated sensitivity for indigenous cultural resources. Due to this sensitivity, the County will implement measure CUL-3 which will develop an Indigenous Resource Notification Protocol and Treatment Plan (Plan) in coordination with the Konkow Valley Band of Maidu and the Mooretown Rancheria. This Plan will detail how the County, for each RMA activity, will 1) contact the Tribal communities prior to proposed RMA activity, 2) inquire regarding any protection or treatment action based on indigenous knowledge, 3) allow opportunity for Tribal survey, visitation, or resource gathering prior to RMA activity, and 4) detail treatment recommendations for any indigenous resources discovered during implementation of any RMA activity.

The County will also implement CUL-4 through CUL-8 to ensure that Cultural Resources Awareness training, opportunity for monitoring, and notification of late discovery or human remains occurs during implementation of all RMA activities.

RMA activities have the potential to harm Tribal Cultural Resources if the appropriate mitigation measures are not followed. Adherence to mitigation measures CUL-3 through CUL-8 would ensure the project shall not impact the significance of a Tribal Cultural Resource.

Mitigation Measures

Mitigation Measure CUL-3

Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area have elevated sensitivity for indigenous cultural resources. Due to this sensitivity, the County will develop an Indigenous Resource Notification Protocol and Treatment Plan (Plan) in coordination with the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects. This Plan will detail how the County, for each RMA activity, will 1) contact the Tribal communities prior to proposed RMA activity,

2) inquire if any protection in place treatment is needed, 3) allow opportunity for Tribal survey or visitation prior to RMA activity, and 4) detail treatment recommendations for any indigenous resources discovered during implementation of any RMA activity.

Mitigation Measure CUL-4

The County, in coordination with Mooretown Rancheria, will provide County leadership involved with maintenance projects covered by the RMA with Cultural Resource Awareness Training. Training will be provided annually, and as new staff are hired.

Mitigation Measure CUL-5

The Konkow Valley Band of Maidu and the Mooretown Rancheria will be provided the opportunity to monitor the proposed RMA work. Notification protocol for contacting the Tribal communities will be detailed in the Indigenous Resource RMA Notification Protocol and Treatment Plan (Plan), included as CUL-3.

Mitigation Measure CUL-6

Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area are used for gathering plant resources. If post-maintenance seeding is required, as part of the notification process specified in CR-1, the Tribe will be asked what resource plant species should be included in the seed mix. These species will be included in the seed mix if ecologically appropriate for the location (e.g. locally native with suitable vegetation community, elevation, & soil type).

Mitigation Measure CUL-7

If an archaeological cultural resource is discovered during implementation of any RMA activity, ground disturbing activities shall be suspended 100 feet around the discovery. An archaeologist, who meets the Secretary of Interior Standards in Archaeology, shall assess the discovery. If the discovery involves indigenous resources, the County will contact the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects to assist in assessing the significance of the discovery. The archaeologist, the County, and if applicable Native American tribes shall confer regarding the appropriate treatment of the discovery. Work shall not resume in the area until treatment has been completed or it has been determined by the archaeologist and/or Tribal representative that the archaeological cultural resource is not significant.

Mitigation Measure CUL-8

If human remains are encountered, State Health and Safety Code § 7050.5 states that no further disturbance shall occur until the Butte County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code § 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Butte County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in PRC § 5097.98.

1.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

Solid Waste

Most municipal wastes in the County are hauled to the Neal Road Recycling and Waste Facility, which is owned by the County and managed by the Department of Public Works. The Neal Road Facility is located at 1023 Neal Road, one mile east from State Highway 99, and seven miles southeast of Chico, on 190 acres owned by Butte County. The Neal Road Facility is permitted to accept municipal solid waste, inert industrial waste, demolition materials, special wastes containing nonfriable asbestos, and septage. Hazardous wastes, including friable

asbestos, are not accepted at the Neal Road Facility or any other Butte County disposal facility, and must be transported to a Class I landfill permitted to receive untreated hazardous waste. The facility has a design capacity of 25,271,900 cubic yards and is permitted to accept 1,500 tons per day; however, the average daily disposal into the landfill is approximately 466 tons. The service life of the Neal Road Facility is expected to extend to the year 2048 (CalRecycle SWIS Facility Detail).

Discussion

a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Since the routine maintenance activities would result in minimal disruption of resources, relocation of storm water drainage, electric power, natural gas, or telecommunications facilities is not anticipated. Therefore, *No Impact* would result from the project. No mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The project would not increase water supply demand. Therefore, *No Impact* would result from the project. No mitigation is required.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

No Impact. The project would not affect wastewater treatments. Therefore, *No Impact* would result from the project. No mitigation is required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Solid waste generated by the project would be limited to the debris from the proposed maintenance activities such as silt, gravel, and sediment removal totaling in an estimated 310 cubic yards annually. This quantity is not anticipated to have a significant impact on the capacity of local infrastructure or impair the attainment of solid waste reduction goals. Therefore, *Less Than Significant Impact* would result from the project. No mitigation is required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The project would comply with statues and regulations related to solid waste. No impact would occur under this threshold. Therefore, *No Impact* would result from the project. No mitigation is required.

1.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		☒ Yes		☐ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Environmental Setting

According to Cal Fire, the County contains Fire Hazard Severity Zones that range from Moderate, High, to Very High. As most of the eastern region of the County falls within a designated State Responsibility Area, the State has the fiscal responsibility for preventing and suppressing wildfires.

Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The proposed routine maintenance activities would not impose any impacts to future emergency response plans. Therefore, the project would result in *No Impact*. No mitigation is required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The routine maintenance activities would be implemented within drainage channels and there would be no exacerbation of fire risk due to slope, prevailing winds, and other factors. Furthermore, routine maintenance activities such as fire fuel reduction work may reduce the risk of wildfire. Therefore, the project would result in *No Impact*. No mitigation is required.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project would not require installation of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No new structures would be constructed. Therefore, the project would result in *No Impact*. No mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project consists of minor routine maintenance activities which would not expose people or structures within the County to risks such as flooding or landslides, as maintenance activities would aim to improve the conditions of drainage facilities. Maintenance of drainage channels would include precautions that would prevent and reduce erosion on impacted slopes. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project would result in *No Impact*. No mitigation is required.

1.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. Potential impacts to biological resources and cultural resources associated with the proposed routine maintenance activities were analyzed in this Initial Study. With implementation of Mitigation Measures BIO-1 through BIO-16 and CUL-1, all direct, indirect, and cumulative impacts could be mitigated to less than significant. Impacts as a result of routine maintenance of stream channels are considered *Less Than Significant With Mitigation Incorporated*.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant Impact with Mitigation Incorporated. The proposed project would not induce population growth or result in the development of new housing or employment-generating uses; therefore, it would not combine with cumulative development to create a cumulative effect related to increased demand for services or utilities. Additionally, potential effects due to construction noise, air quality, and water quality would be short term and temporary; therefore, no cumulative impacts are anticipated. Mitigation measures would avoid impacts to cultural resources and hazardous materials such that there would be no cumulative effects to these resources.

While individual routine maintenance activities would not have significant effects to biological resources, the cumulative effect aquatic and riparian habitats may be significant with 20 to 30 projects anticipated per year over a 12 year period. With the incorporation of Mitigation Measure BIO-16, the County would offer compensatory mitigation for permanent effects to biological resources, thus reducing cumulative impacts to *Less Than Significant Impact with Mitigation Incorporated*.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. As discussed in this study, the proposed project could result in impacts on human beings indirectly due to noise impacts. Avoidance and minimization measures included in this study would reduce impacts to less-than-significant levels. The project would result in *Less Than Significant Impact* on substantial adverse effects on human beings. No mitigation is required.

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APPENDIX A. MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation, Monitoring and Reporting Plan

Butte County Routine Maintenance Agreement

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Biological Resources					
BIO-1: Prior to beginning any maintenance work under the RMA, the County maintenance staff and supervisors will receive environmental awareness training. The environmental awareness training program will be developed by a biologist who is knowledgeable about the special status species and other sensitive biological resources within the County. The training programs will include a discussion of the distribution and habitat of special status species within the County, legal protections for these species, penalties for violations, and species-specific protective measures. Interpretation will be provided for non-English speaking personnel. The training program will be provided to all personnel working on each maintenance project prior to work beginning. Training materials will be made available to personnel as pamphlets, information cards, or other methods. Upon completion of environmental awareness training, personnel will sign a form stating they attended the program and understand all required protection measures.	Prior to Maintenance	County			
BIO-2: If water is present within work areas during maintenance activities, and the activity is located within the mapped range and potentially suitable habitat for CRLF, FYLF, Cascades frog, SNYLF, southern long-toed salamander, giant garter snake, and/or western pond turtle, a focused pre-construction survey for the species will be required. Surveys are not required within urban or barren land cover areas lacking water or native vegetation. Pre-construction surveys will be completed by a CDFW-approved Designated Biologist. Methods will include visual encounter surveys (VES) and/or cover object searches and will be conducted in accordance with the most recently adopted survey protocol for the species in question, where applicable. If special status species are identified within a maintenance area, the County will coordinate with CDFW to determine species and project specific measures to avoid take of the species. Such measures may include delaying the start of construction, biological monitoring, exclusion fencing, and/or a water diversion plan.	Prior to Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
BIO-3: The County will time tree and other vegetation removal to avoid the nesting bird season where feasible. The nesting bird season is defined as February 1 through September 15. If tree and vegetation removal and/or construction activities must occur during the nesting bird season (February 1 through September 15), a biologist will conduct pre-construction surveys for nesting birds and raptors no more than 3 days (72 hours) prior to the initiation of tree/vegetation removal and/or initial construction activities. If there is a break in construction activities of more than seven days, then subsequent surveys will be conducted. Surveys will include the entire project area, including staging areas and access routes, plus a 50-foot buffer. Survey results will be documented in a memorandum and submitted to the CDFW through the VRF process. If an active nest is found, active nests should be avoided, and a no disturbance or destruction buffer shall be determined and established by a CDFW-approved Designated Biologist. The buffer shall be kept in place until after the breeding nesting season or the Designated Biologist confirms the young have fledged, are foraging independently, and the nest is no longer active for the season. The extent of these buffers shall be determined by the Designated Biologist and will depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. If construction activities are scheduled to occur outside of the nesting season (September 16 through January 31), then a nesting bird survey is not required, and no further studies are necessary.	Prior to Maintenance	County			
BIO-4: If swallow mud nests occur within a project area, swallow nests will be removed by a qualified biologist in order to exclude nesting swallows and roosting bats from the project area. Swallow nest removal will be timed to occur outside of the nesting season (September 2 through January 31). Nests will be inspected by a biologist and removal may occur only once the nests are determined to be inactive, i.e., the young of the year have fledged and no swallow nesting activity is actively occurring. If nests are occupied	Prior to Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
by roosting bats, then removal must be completed by a qualified bat biologist with knowledge of bat-safe swallow nest removal methods and appropriate bat handling permits. During the nesting season (February 1 through September 1), the County may discourage swallow nest construction by removing partially completed nests. Only nests that are less than one-third complete will be removed by washing or knocking down nests. Once a nest is more than one-third complete, it will not be disturbed until a biologist has determined the nest to be inactive.					
BIO-5: If maintenance activities are planned in suitable burrowing owl habitat, a qualified biologist will conduct a pre-construction survey for burrowing owl following the methodology described in the Staff Report on Burrowing Owl Mitigation (CDFW 2012) within 14 days of the start of construction. If burrowing owls or signs of burrowing owl presence, such as whitewash, feathers, animal dung, etc., are not detected, no further measures will be required. If burrowing owls are observed within 500 feet of the maintenance area, the County will develop an Impact Assessment consistent with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) and submit the Impact Assessment to CDFW prior to maintenance work. The final avoidance and mitigation measures will be determined in coordination with CDFW but the Impact Assessment will, at a minimum, include the following mitigation measure: Occupied burrows will not be disturbed. If occupied burrows are found, the biologist will consult with CDFW to determine appropriate no-work buffer widths. The County will not disturb identified burrowing owl burrows until the biologist verifies it has been cleared and approved by CDFW.	Prior to Maintenance	County			
BIO-6: Maintenance activities occurring within the bed, bank, or channel of the Sacramento River, Feather River, and tributaries to these water bodies that are accessible to anadromous fish species will be limited to the period of July 1 to October 15 to minimize potential impacts to special status fish species. This in-water work window may be adjusted or extended on a case-by-case basis in coordination with CDFW and NMFS. Construction activities will also be timed with awareness of precipitation	During Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
forecasts and likely increases in stream flow. The County will monitor the National Weather Service 72-hour forecast to monitor forecasted rain events. All work within the bed, bank, or channel of any stream will be restricted to periods of dry weather (with less than a 50% chance of precipitation). If a precipitation event of over a quarter inch over a 24-hour period occurs, then work will be paused for a 24-hour dry-out period. All erosion control measures shall be initiated prior to all storm events. Revegetation, restoration, and erosion control work is not confined to this work period. Furthermore, if emergency maintenance is required, seasonal limitations do not apply. Emergency maintenance is defined as immediate emergency work necessary to protect life or property, or to restore public service facilities necessary to maintain service. The County will notify CDFW within 14 days of beginning emergency maintenance work.					
BIO-7: The County will not conduct routine maintenance activities within vernal pools, playas or other wetlands that seasonally remain inundated for periods of two months or longer. Temporary impact areas, including access routes and staging areas, will also be positioned outside of these areas. If maintenance work or associated temporary impact areas are close to one of these habitats (less than 20 feet), the boundary of the work area in proximity to the sensitive habitat must be marked with Environmentally Sensitive Area (ESA) high visibility orange fencing to prevent maintenance equipment or personnel from entering the protected habitat.	Prior to/During Maintenance	County			
BIO-8: Impacts to elderberry shrubs will be avoided during maintenance activities. Where feasible, ground disturbing activities will not encroach within 20 feet of the dripline of an elderberry. The area around elderberry shrubs to be avoided will be marked with ESA high visibility orange fencing prior to construction activities. Herbicides will not be used within the dripline of an elderberry. Insecticides will not be used within 98 feet of an elderberry. All chemicals will be applied using a backpack sprayer or similar direct application method. Weed removal within the dripline of elderberry shrubs will be conducted outside of the VELB adult flight season (August 1 to February 28). If trimming of an elderberry is required, then trimming will be limited to the	Prior to/During Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
period of November 1 through February 28 and will avoid the removal of any branches or stems greater than one inch in diameter. Any trimming required beyond these stipulations will be conducted after consultation with USFWS.					
BIO-9: Structures will be assessed for occupation prior to the initiation of maintenance work. Trees will be assessed for bat occupation/habitat potential prior to any tree removal or trimming. All bat occupation surveys will be completed by a CDFW-approved Designated Biologist. If trees requiring removal are determined to be potential bat habitat, then tree removal will be conducted over two days using a two-step method. The first step, conducted on the first day, will involve removal of all non-bat habitat trees and trimming of major branches of bat habitat trees. The objective of the first step in two-step tree removal is to alter the habitat such that it becomes unsuitable for bats without directly impacting individuals. The second step of tree removal will be conducted on the second day and will include close inspection of the tree by a qualified biologist and, if determined to be unoccupied, full removal of the tree. If maintenance activities on bridges or other structures must occur within or immediately adjacent to bat occupied habitat, a CDFW-approved bat biologist must develop an exclusion plan and submit it to CDFW for review and approval no later than 10 days prior to the start of work. Bat exclusions must be installed prior to the pupping season of April 15 – August 31 under the supervision of a CDFW-approved bat biologist experienced in bat exclusion. Exclusion devices should be inspected a minimum of once per week by a CDFW-approved bat biologist to ensure the devices are effective.	Prior to/During Maintenance	County			
BIO-10: RMA activities on small streams at elevations above 5,500 feet, which may be suitable habitat for Sierra Nevada mountain beaver, will be avoided to the extent feasible. If bank disturbance is planned for streams at these elevations, the County will develop a Sierra Nevada mountain beaver avoidance plan for CDFW approval prior to construction, including protective measures such as pre-construction surveys and biological monitoring as necessary.	Prior to Maintenance	County			
BIO-11: Prior to routine maintenance projects within potential rare plant	Prior to	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
habitat, pre-construction rare plant surveys will be required. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which rare plant surveys are required. If there is suitable habitat for rare plants present ("suitable habitat" for rare plants is defined as any natural vegetation community, excluding agricultural, ornamental, urban, developed, or barren habitat types), then rare plant surveys will be conducted by a biologist or botanist during the appropriate blooming period for the required survey species. The required survey species will be determined based on the location of the maintenance activity, see below. *Sacramento Valley Geographic Subdivision: Survey Area 1* Survey Species: Adobe-lily, Ahart's dwarf rush, Ahart's paronychia, Brazilian watermeal, Butte County golden clover, Butte County meadowfoam, Ferris' milk-vetch, Greene's tuctoria, Hairy Orcutt grass, Hoover's spurge, Red Bluff dwarf rush, Sanford's arrowhead, slender Orcutt grass, woolly rose-mallow *Cascade Range Foothills Geographic Subdivision: Survey Area 2* Survey Species: Adobe-lily, Ahart's dwarf rush, Ahart's paronychia, Butte County checkerbloom, Butte County fritillary, Butte County meadowfoam, California beaked-rush, California satintail, dissected-leaved toothwort, flagella-like atractylocarpus, Red Bluff dwarf rush, white-stemmed clarkia, woolly rose-mallow *Northern Sierra Nevada Foothills Geographic Subdivision: Survey Area 3* Survey Species: Adobe-lily, Ahart's buckwheat, Ahart's paronychia, brownish beaked-rush, Butte County checkerbloom, Butte County fritillary, Butte County golden clover, Butte County meadowfoam, California satintail, dissected-leaved toothwort, Greene's tuctoria, Hoover's spurge, Jepson's onion, Lewis Rose's ragwort, Mildred's clarkia, Mosquin's clarkia, pink creamsacs, Red Bluff dwarf rush, veiny monardella, white-stemmed clarkia, woolly rose-mallow *High Cascade Range Geographic Subdivision: Survey Area 4* Survey Species: Ahart's buckwheat, broad-nerved hump moss, Butte County fritillary, Davy's sedge, dissected-leaved toothwort, English sundew, flat-leaved bladderwort, Hall's rupertia, Jepson's onion, Lewis Rose's	Maintenance				

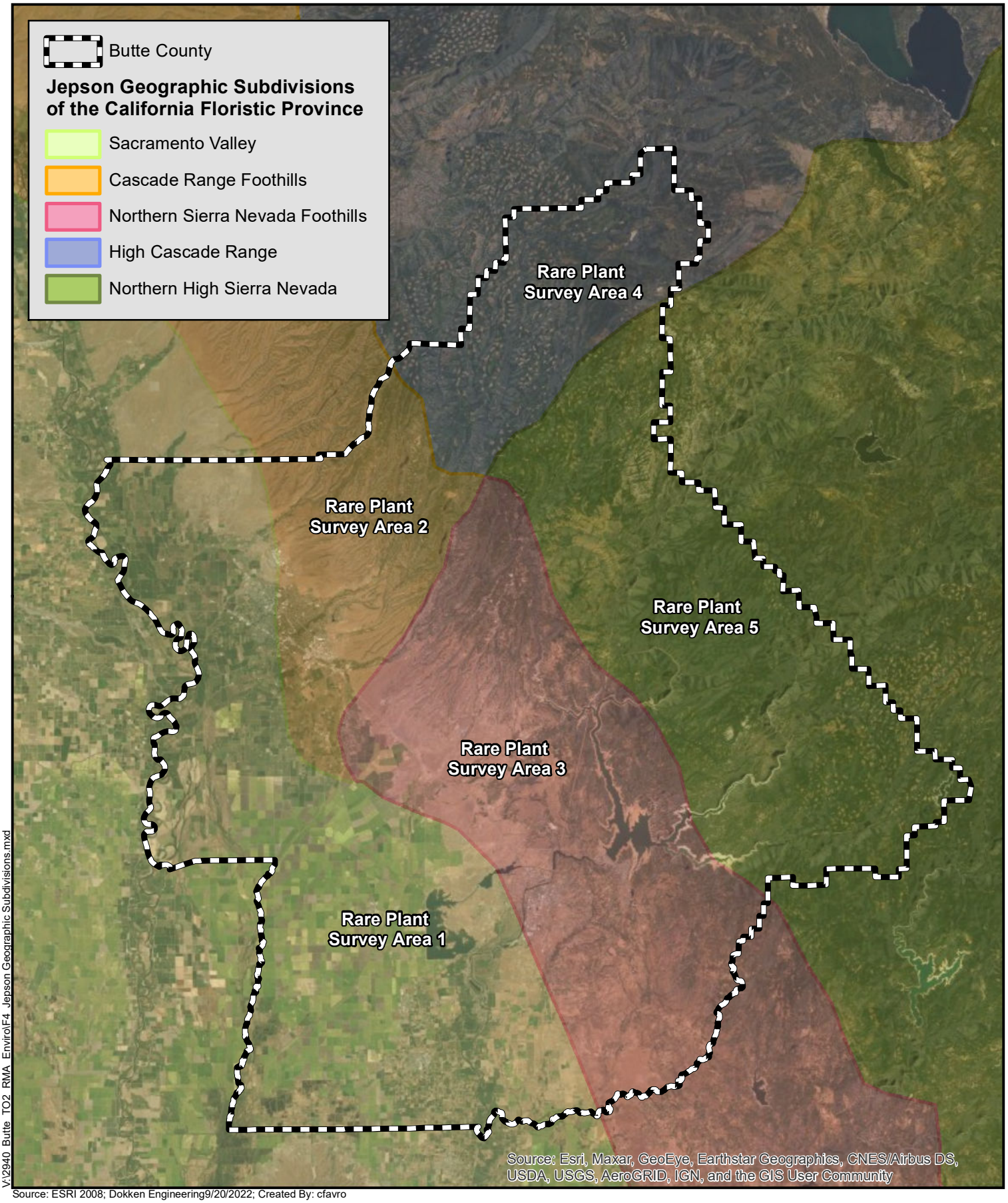
Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
ragwort, long-leaved starwort, long-stiped campion, Mildred's clarkia, Mingan moonwort, mud sedge, scalloped moonwort, water bulrush, western goblin, white-stemmed clarkia *Northern High Sierra Nevada Geographic Subdivision: Survey Area 5* Survey Species: Ahart's buckwheat, brownish beaked-rush, Butte County fritillary, Cantelow's Lewisia, Caribou coffeeberry, Clifton's eremogone, closed-throated beardtongue, dissected-leaved toothwort, fern-leaved monkeyflower, Henderson's bent grass, Jepson's onion, Lewis Rose's ragwort, Mildred's clarkia, minute pocket moss, Mosquin's clarkia, Sanford's arrowhead, Sierra arching sedge, Sierra blue grass, upswept moonwort, white-stemmed clarkia Survey results will be submitted to CDFW as an attachment to the VRFs. Rare plant populations discovered onsite will be protected in place with orange ESA fencing.					
BIO-12: If wildlife is encountered during maintenance activities, work will stop within the area until the animal leaves of its own accord or the animal is relocated by a qualified biologist. If special status wildlife is encountered during maintenance activities, work will stop within the area and CDFW will be contacted to determine appropriate avoidance measures.	During Maintenance	County			
BIO-13: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.	During Maintenance	County			
BIO-14: Prior to arrival at the project site, the County must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.	Prior to Maintenance	County			
BIO-15: Soil disturbance and vegetation trimming/removal will be limited to the minimum area necessary to complete maintenance activities. When feasible, existing vegetation will be protected in place and stumps of removed trees will be left intact to allow the tree to stump sprout and quickly regenerate the habitat. Where ground disturbance occurs, the surface of temporarily impacted	During/Post Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
riparian and wetland habitat will be regraded and restored to pre-maintenance contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.					
BIO-16: Permanent impacts are defined as actions that result in a permanent modification to wetlands, stream channels, or riparian habitats (e.g. new impervious cover, rock slope protection, placement of fill). Mitigation will be calculated based on the area of impact. The County will mitigate for permanent impacts to CDFW jurisdictional habitats by either creating or enhancing habitat areas within the County or purchasing suitable mitigation credits from a CDFW approved mitigation bank. Habitat creation or enhancement projects will be located on property owned by the County or CDFW, designated open space, or existing conservation land to minimize conflict with alternative land uses. Mitigation sites will be monitored for a period of 5 years. A mitigation site will be deemed successful if it meets success standards for plant survivability and non-native cover. If success criteria are not met, corrective actions including supplemental planting, watering, or weeding may be required. Success criteria will be determined in consultation with CDFW during the preparation of an HMMP that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA.	Post Maintenance	County			
Cultural Resources & Tribal Cultural Resources					
CUL-1: In routine maintenance areas, if activities consisting of 1) work beyond the slope of the channel that involves grading deeper than 6" or vegetation removal, 2) open trenching, 3) converting existing concrete-lined channels to a more natural state, or 4) root/stump removal are anticipated, the County must first consult with an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology to determine measures to proceed.	Prior to Maintenance	County			
CUL-2: Routine maintenance activities may require an XPI cultural resources investigation for the presence of a previously unanticipated resource, which requires notification of Native American Tribes and	Prior to Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
opportunity for participation. Should a resource be identified, the activity would no longer be considered a RMA covered activity if avoidance of the resource is not possible.					
CUL-3: Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area have elevated sensitivity for indigenous cultural resources. Due to this sensitivity, the County will develop an Indigenous Resource Notification Protocol and Treatment Plan (Plan) in coordination with the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects. This Plan will detail how the County, for each RMA activity, will 1) contact the Tribal communities prior to proposed RMA activity, 2) inquire if any protection in place treatment is needed, 3) allow opportunity for Tribal survey or visitation prior to RMA activity, and 4) detail treatment recommendations for any indigenous resources discovered during implementation of any RMA activity.	Prior to Maintenance	County			
CUL-4: The County, in coordination with Mooretown Rancheria, will provide County leadership involved with maintenance projects covered by the RMA with Cultural Resource Awareness Training. Training will be provided annually, and as new staff are hired.	Prior to Maintenance	County			
CUL-5: The Konkow Valley Band of Maidu and the Mooretown Rancheria will be provided the opportunity to monitor the proposed RMA work. Notification protocol for contacting the Tribal communities will be detailed in the Indigenous Resource RMA Notification Protocol and Treatment Plan (Plan), included as CUL-3.	Prior to Maintenance	County			
CUL-6: Based on consultation with both the Konkow Valley Band of Maidu and the Mooretown Rancheria, the waterways within the proposed Project Area are used for gathering plant resources. If post-maintenance seeding is required, as part of the notification process specified in CR-1, the Tribe will be asked what resource plant species should be included in the seed mix. These species will be included in the seed mix if ecologically appropriate for the location (e.g. locally native with suitable vegetation community, elevation, & soil type).	Prior to Maintenance	County			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
CUL-7: If an archaeological cultural resource is discovered during implementation of any RMA activity, ground disturbing activities shall be suspended 100 feet around the discovery. An archaeologist, who meets the Secretary of Interior Standards in Archaeology, shall assess the discovery. If the discovery involves indigenous resources, the County will contact the Konkow Valley Band of Maidu, Mooretown Rancheria, and any additional Native American tribes or groups that have requested to be contacted regarding County projects to assist in assessing the significance of the discovery. The archaeologist, the County, and if applicable Native American tribes shall confer regarding the appropriate treatment of the discovery. Work shall not resume in the area until treatment has been completed or it has been determined by the archaeologist and/or Tribal representative that the archaeological cultural resource is not significant.	During Maintenance	County			
CUL-8: If human remains are encountered, State Health and Safety Code § 7050.5 states that no further disturbance shall occur until the Butte County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code § 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Butte County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in PRC § 5097.98.	During Maintenance	County			
Hydrology and Water Quality					
WQ-1: The County will monitor the National Weather Service 72-hour forecast prior to Project activities. If a precipitation event of over a quarter of an inch within a 24-hour period occurs during maintenance activities, work will be paused for a 24-hour dry-out period.	During Maintenance	County			

APPENDIX B. ADDITIONAL FIGURES



V:\2940_Butte_TO2_RMA_Enviro\F4_Jepson Geographic Subdivisions.mxd

Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

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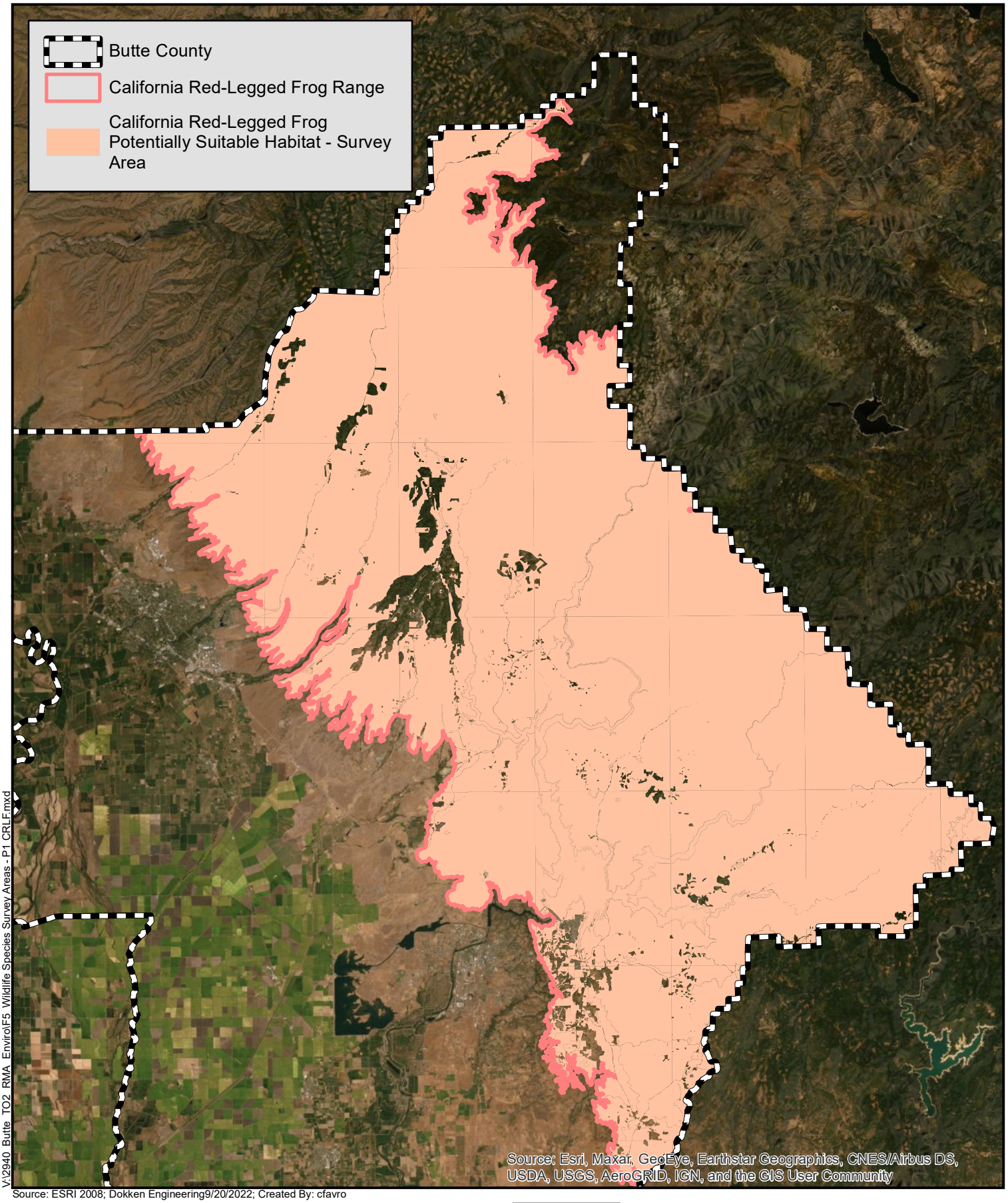
FIGURE 5
Jepson Geographic Subdivisions and Plant Survey Areas
Butte County Routine Maintenance Agreement
Butte County, California



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Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

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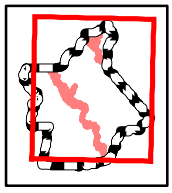
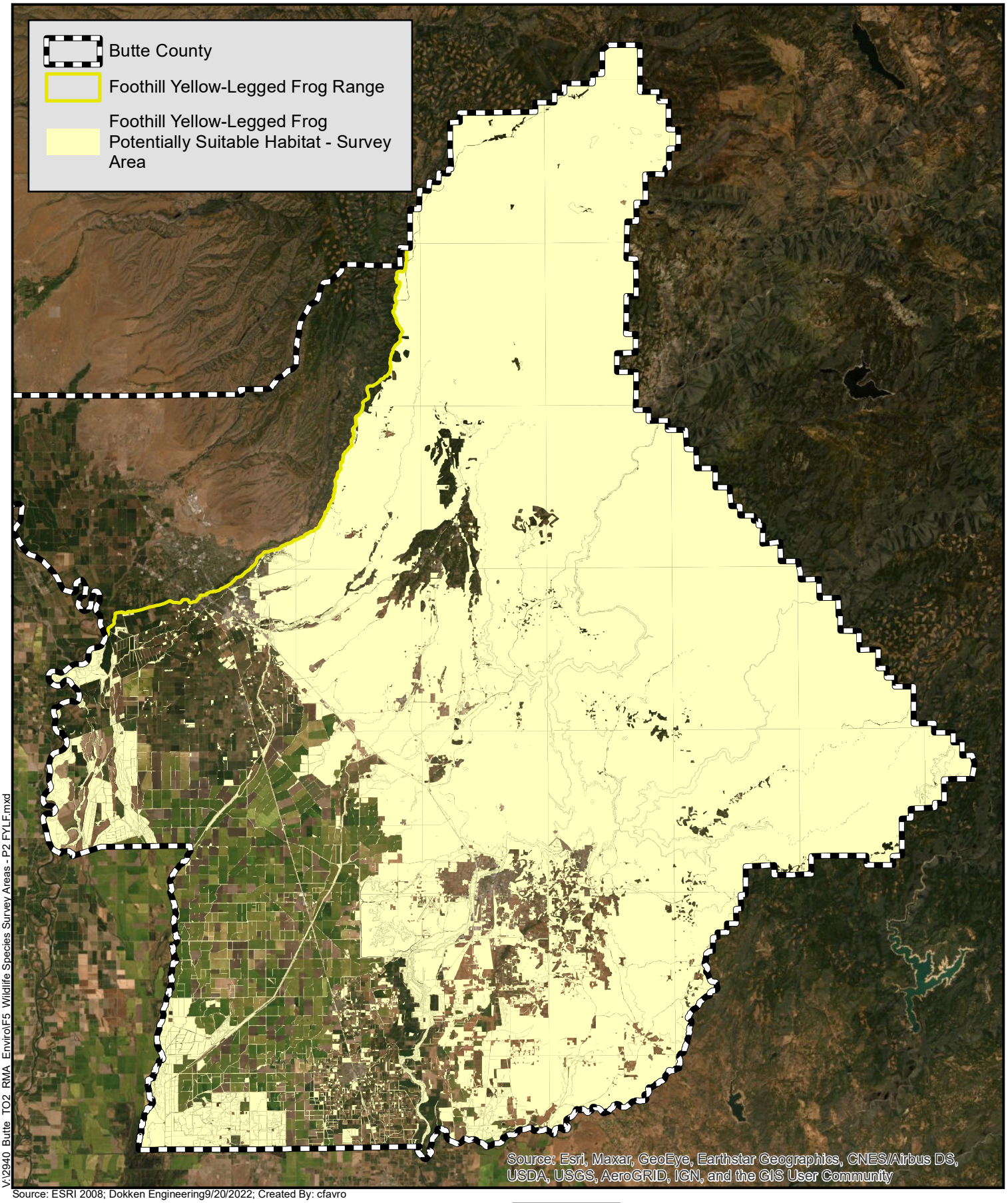


FIGURE 6
Page 1 of 6
Reptile and Amphibian Survey Areas
California Red-Legged Frog
Butte County Routine Maintenance Agreement
Butte County, California



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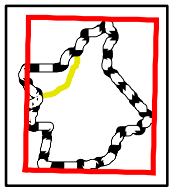
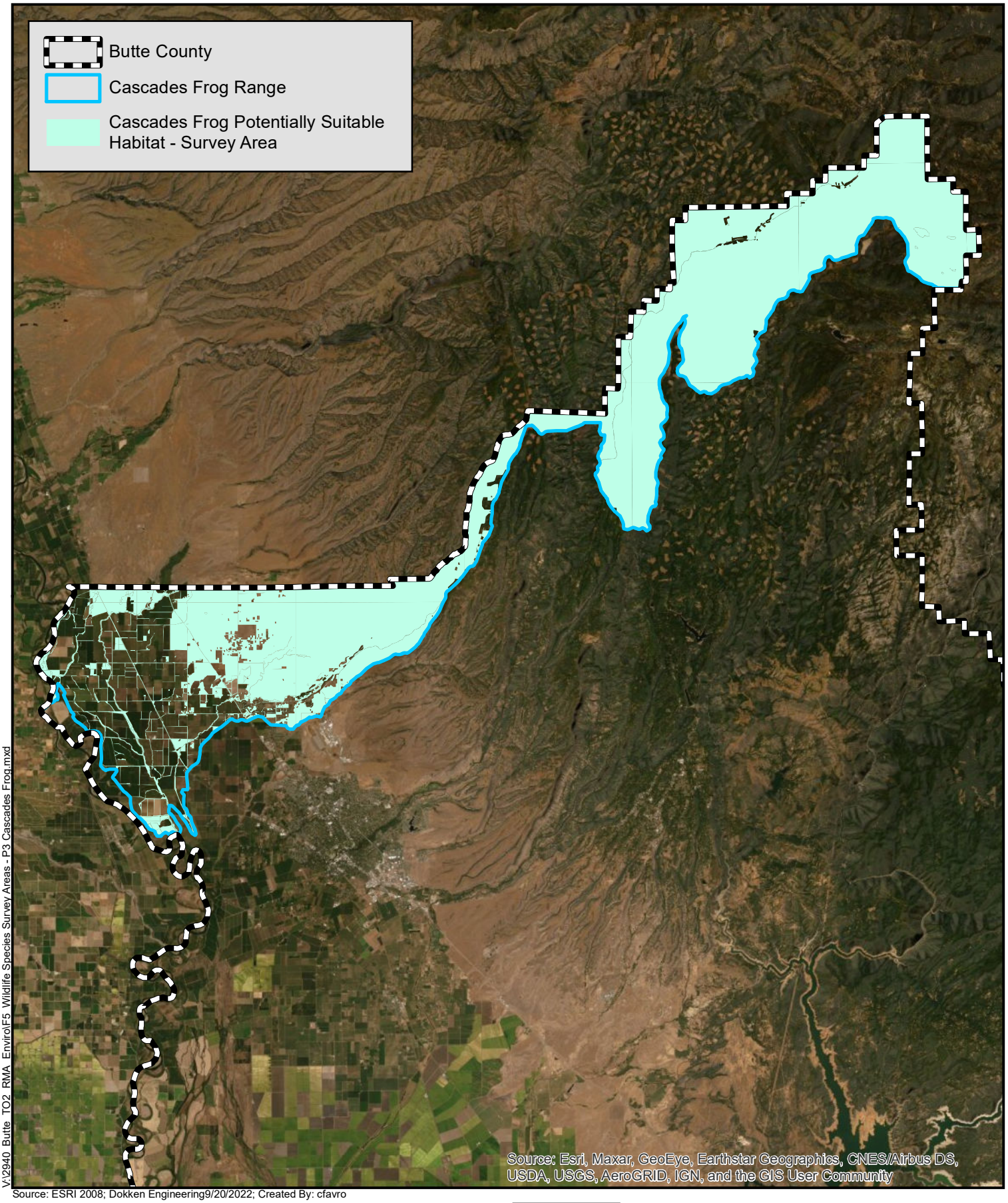


FIGURE 6
Page 2 of 6
Reptile and Amphibian Survey Areas
Foothill Yellow-Legged Frog
Butte County Routine Maintenance Agreement
Butte County, California



V:\2940_Butte_TO2_RMA_EnviroF5_Wildlife Species Survey Areas - P3 Cascades Frog.mxd

Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

0 5 10 Miles

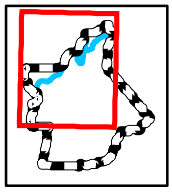
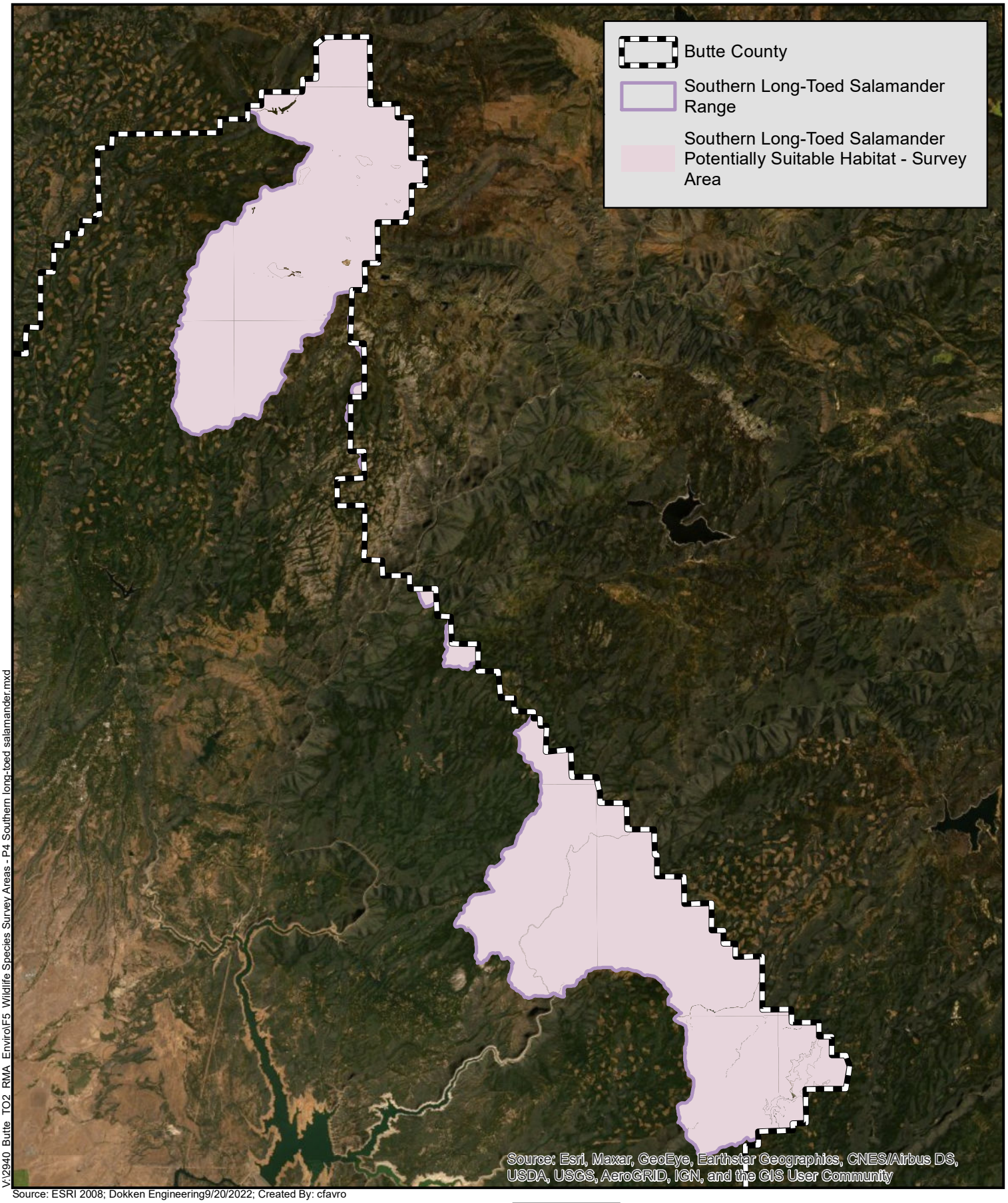


FIGURE 6
Page 3 of 6
Reptile and Amphibian Survey Areas
Cascades Frog
Butte County Routine Maintenance Agreement
Butte County, California



V:\2940_Butte_TO2_RMA_EnviroF5_Wildlife Species Survey Areas - P4 Southern long-toed salamander.mxd

Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

0 5 10 Miles

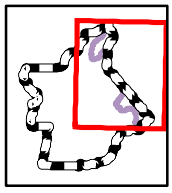
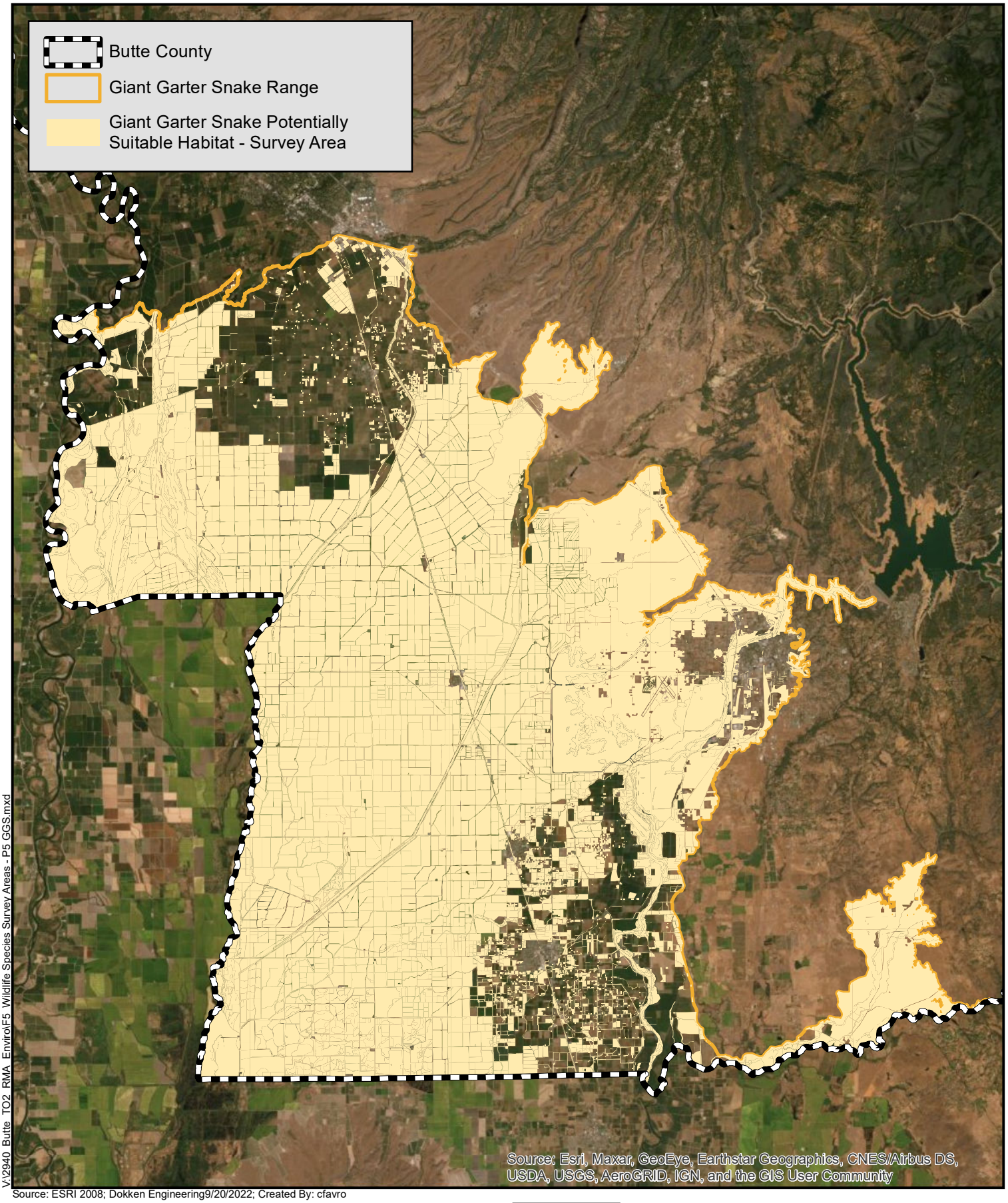


FIGURE 6
Page 4 of 6
Reptile and Amphibian Survey Areas
Southern Long-Toed Salamander
Butte County Routine Maintenance Agreement
Butte County, California



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Source: ESRI 2008; Dokken Engineering9/20/2022; Created By: cfavro

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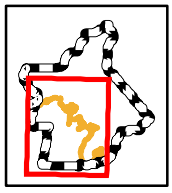
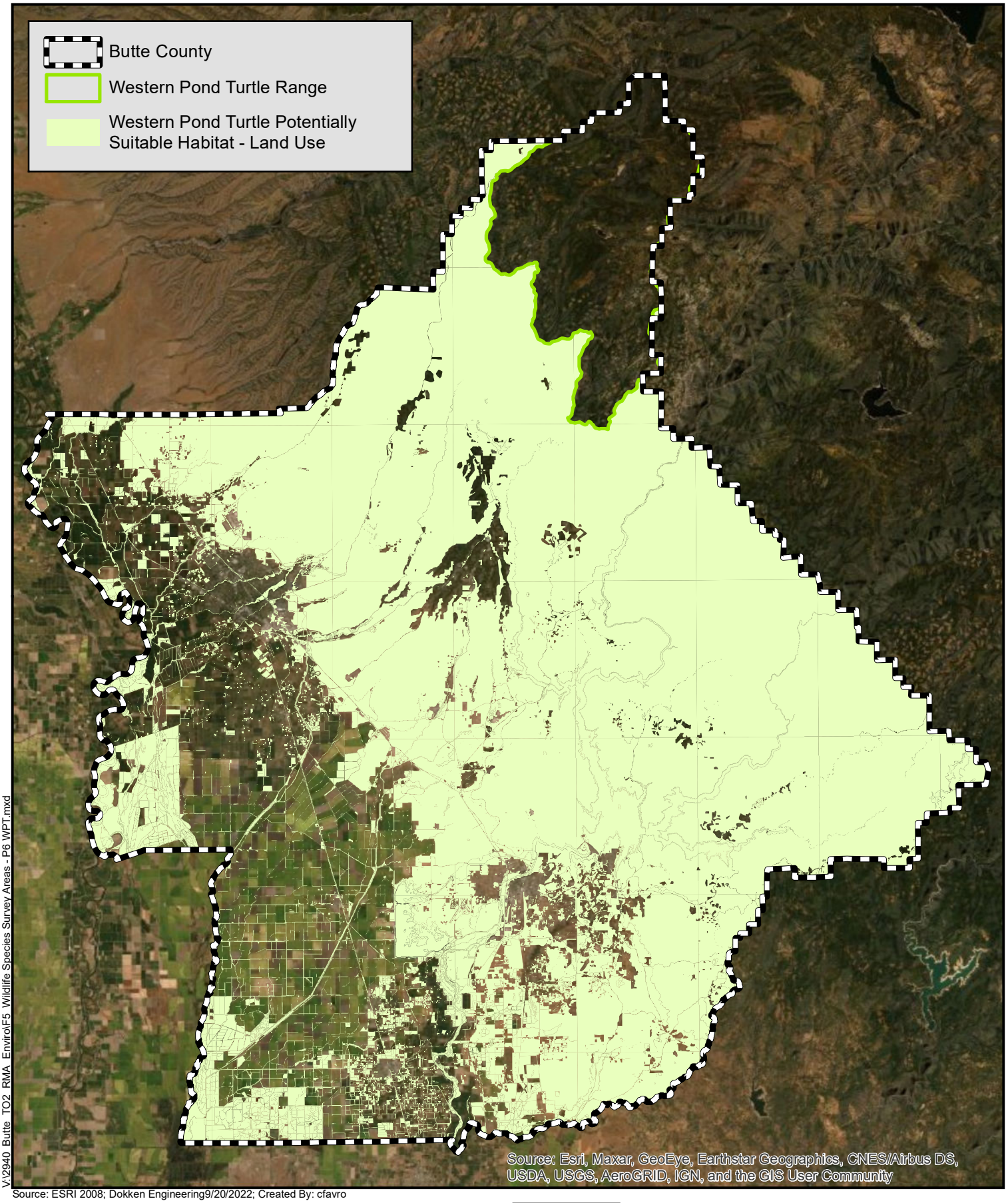


FIGURE 6
Page 5 of 6
Reptile and Amphibian Survey Areas
Giant Garter Snake
Butte County Routine Maintenance Agreement
Butte County, California



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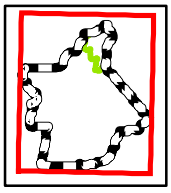


FIGURE 6
Page 6 of 6
Reptile and Amphibian Survey Areas
Western Pond Turtle
Butte County Routine Maintenance Agreement
Butte County, California

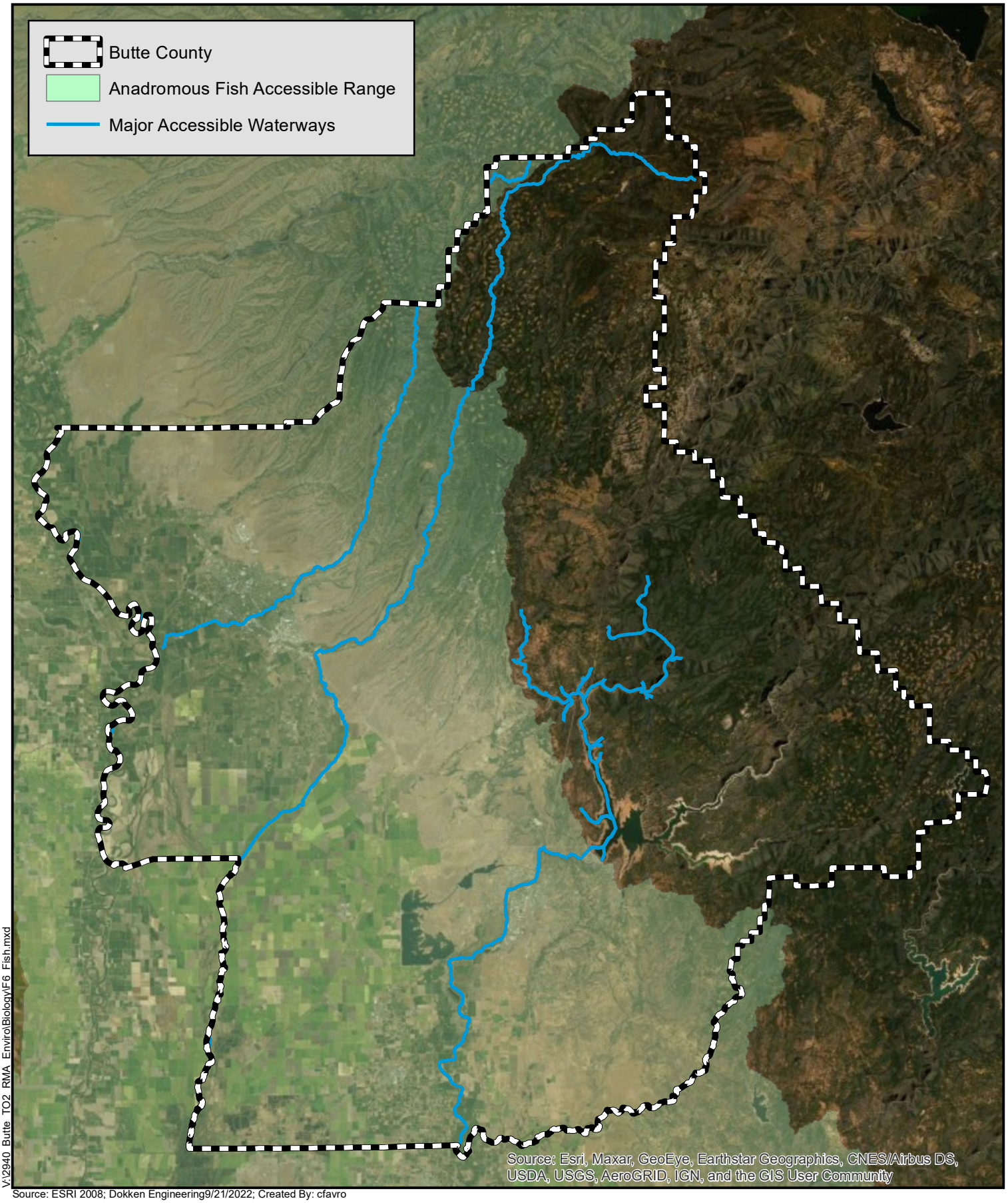


FIGURE 7
Range of Anadromous Fish within Butte County
Butte County Routine Maintenance Agreement
Butte County, California

APPENDIX C. BIOLOGICAL DATABASE SEARCH RESULTS

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: County IS (Butte)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
adobe-lily *Fritillaria pluriflora*	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
Ahart's buckwheat *Eriogonum umbellatum var. ahartii*	PDPGN086UY	None	None	G5T3	S3	1B.2
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	PMJUN011L1	None	None	G2T1	S1	1B.2
Ahart's paronychia *Paronychia ahartii*	PDCAR0L0V0	None	None	G3	S3	1B.1
alder buckthorn *Rhamnus alnifolia*	PDRHA0C010	None	None	G5	S3	2B.2
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
American peregrine falcon *Falco peregrinus anatum*	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Antioch Dunes anthicid beetle *Anthicus antiochensis*	IICOL49020	None	None	G1	S3	
bald eagle *Haliaeetus leucocephalus*	ABNKC10010	Delisted	Endangered	G5	S3	FP
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
big-scale balsamroot *Balsamorhiza macrolepis*	PDAST11061	None	None	G2	S2	1B.2
black swift *Cypseloides niger*	ABNUA01010	None	None	G4	S2	SSC
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	PDONA05053	None	None	G4G5T4	S4	4.2
Brazilian watermeal *Wolffia brasiliensis*	PMLEM03020	None	None	G5	S2	2B.3
broad-nerved hump moss *Meesia uliginosa*	NBMUS4L030	None	None	G5	S3	2B.2
brownish beaked-rush *Rhynchospora capitellata*	PMCYP0N080	None	None	G5	S1	2B.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
Butte County checkerbloom *Sidalcea robusta*	PDMAL110P0	None	None	G2	S2	1B.2
Butte County fritillary *Fritillaria eastwoodiae*	PMLIL0V060	None	None	G3Q	S3	3.2
Butte County golden clover *Trifolium jokerstii*	PDFAB40310	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Butte County meadowfoam *Limnanthes floccosa ssp. californica*	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
Butte County morning-glory *Calystegia atriplicifolia ssp. buttensis*	PDCON04012	None	None	G5T3	S3	4.2
California alkali grass *Puccinellia simplex*	PMPOA53110	None	None	G3	S2	1B.2
California beaked-rush *Rhynchospora californica*	PMCYP0N060	None	None	G1	S1	1B.1
California black rail *Laterallus jamaicensis coturniculus*	ABNME03041	None	Threatened	G3T1	S1	FP
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
California red-legged frog *Rana draytonii*	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California satintail *Imperata brevifolia*	PMPOA3D020	None	None	G4	S3	2B.1
California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Callahan's mariposa-lily *Calochortus syntrophus*	PMLIL0D1S0	None	None	G2	S2	1B.1
Cantelow's lewisia *Lewisia cantelovii*	PDPOR04020	None	None	G3	S3	1B.2
Caribou coffeeberry *Frangula purshiana ssp. ultramafica*	PDRHA0H061	None	None	G4T2T3	S2S3	1B.2
Cascades frog *Rana cascadae*	AAABH01060	None	Candidate Endangered	G3G4	S3	SSC
chaparral sedge *Carex xerophila*	PMCYP03M60	None	None	G2	S2	1B.2
chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha pop. 11*	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
Clifton's eremogone *Eremogone cliftonii*	PDCAR17010	None	None	G3	S3	1B.3
closed-throated beardtongue *Penstemon personatus*	PDSCR1L4Y0	None	None	G2	S2	1B.2
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G3G4	S3S4	SSC
Coastal and Valley Freshwater Marsh *Coastal and Valley Freshwater Marsh*	CTT52410CA	None	None	G3	S2.1	
Colusa layia *Layia septentrionalis*	PDAST5N0F0	None	None	G2	S2	1B.2
Conservancy fairy shrimp *Branchinecta conservatio*	ICBRA03010	Endangered	None	G2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	None	G2	S1S2	
Davy's sedge *Carex davyi*	PMCYP033H0	None	None	G3	S3	1B.3
dissected-leaved toothwort *Cardamine pachystigma var. dissectifolia*	PDBRA0K1B1	None	None	G3G5T2Q	S2	1B.2
dwarf resin birch *Betula glandulosa*	PDBET02030	None	None	G5	S2	2B.2
English sundew *Drosera anglica*	PDDRO02010	None	None	G5	S2	2B.3
Feather River stonecrop *Sedum albomarginatum*	PDCRA0A030	None	None	G2	S2	1B.2
felt-leaved violet *Viola tomentosa*	PDVIO04280	None	None	G3	S3	4.2
fern-leaved monkeyflower *Erythranthe filicifolia*	PDPHR01150	None	None	G2	S2	1B.2
Ferris' milk-vetch *Astragalus tener var. ferrisiae*	PDFAB0F8R3	None	None	G2T1	S1	1B.1
Fisher *Pekania pennanti*	AMAJF01020	None	None	G5	S2S3	SSC
flagella-like atractylocarpus *Campylopodiella stenocarpa*	NBMUS84010	None	None	G5	S1?	2B.2
flat-leaved bladderwort *Utricularia intermedia*	PDLNT020A0	None	None	G5	S3	2B.2
foothill yellow-legged frog *Rana boylii*	AAABH01050	None	Endangered	G3	S3	SSC
fringed myotis *Myotis thysanodes*	AMACC01090	None	None	G4	S3	
Gallaway's amphipod *Stygobromus gallawayae*	ICMAL05E10	None	None	G1	S1	
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
Great Valley Cottonwood Riparian Forest *Great Valley Cottonwood Riparian Forest*	CTT61410CA	None	None	G2	S2.1	
Great Valley Mixed Riparian Forest *Great Valley Mixed Riparian Forest*	CTT61420CA	None	None	G2	S2.2	
Great Valley Valley Oak Riparian Forest *Great Valley Valley Oak Riparian Forest*	CTT61430CA	None	None	G1	S1.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Great Valley Willow Scrub *Great Valley Willow Scrub*	CTT63410CA	None	None	G3	S3.2	
greater sandhill crane *Antigone canadensis tabida*	ABNMK01014	None	Threatened	G5T5	S2	FP
green sturgeon - southern DPS *Acipenser medirostris pop. 1*	AFCAA01031	Threatened	None	G2T1	S1	
Greene's tuctoria *Tuctoria greenei*	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Hall's rupertia *Rupertia hallii*	PDFAB62010	None	None	G2G3	S2S3	1B.2
hardhead *Mylopharodon conocephalus*	AFCJB25010	None	None	G3	S3	SSC
heartscale *Atriplex cordulata var. cordulata*	PDCHE040B0	None	None	G3T2	S2	1B.2
Henderson's bent grass *Agrostis hendersonii*	PMPOA040K0	None	None	G2Q	S2	3.2
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G3G4	S4	
Hoover's spurge *Euphorbia hooveri*	PDEUP0D150	Threatened	None	G1	S1	1B.2
Jepson's onion *Allium jepsonii*	PMLIL022V0	None	None	G2	S2	1B.2
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
lesser saltscale *Atriplex minuscula*	PDCHE042M0	None	None	G2	S2	1B.1
Lewis Rose's ragwort *Packera eurycephala var. lewisrosei*	PDAST8H182	None	None	G4T2	S2	1B.2
loggerhead shrike *Lanius ludovicianus*	ABPBR01030	None	None	G4	S4	SSC
long-eared myotis *Myotis evotis*	AMACC01070	None	None	G5	S3	
long-leaved starwort *Stellaria longifolia*	PDCAR0X0M0	None	None	G5	S2	2B.2
long-stiped campion *Silene occidentalis ssp. longistipitata*	PDCAR0U161	None	None	G4T2Q	S2	1B.2
merlin *Falco columbarius*	ABNKD06030	None	None	G5	S3S4	WL
midvalley fairy shrimp *Branchinecta mesovallensis*	ICBRA03150	None	None	G2	S2S3	
Mildred's clarkia *Clarkia mildrediae ssp. mildrediae*	PDONA050Q2	None	None	G3T2T3	S3?	1B.3

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Mingan moonwort *Botrychium minganense*	PPOPH010R0	None	None	G4G5	S3	2B.2
minute pocket moss *Fissidens pauperculus*	NBMUS2W0U0	None	None	G3?	S2	1B.2
Mosquin's clarkia *Clarkia mosquinii*	PDONA050S0	None	None	G2	S2	1B.1
mud sedge *Carex limosa*	PMCYP037K0	None	None	G5	S3	2B.2
North American porcupine *Erethizon dorsatum*	AMAFJ01010	None	None	G5	S3	
Northern Basalt Flow Vernal Pool *Northern Basalt Flow Vernal Pool*	CTT44131CA	None	None	G3	S2.2	
northern goshawk *Accipiter gentilis*	ABNKC12060	None	None	G5	S3	SSC
Northern Hardpan Vernal Pool *Northern Hardpan Vernal Pool*	CTT44110CA	None	None	G3	S3.1	
northern harrier *Circus hudsonius*	ABNKC11011	None	None	G5	S3	SSC
northern slender pondweed *Stuckenia filiformis ssp. alpina*	PMPOT03091	None	None	G5T5	S2S3	2B.2
Northern Volcanic Mud Flow Vernal Pool *Northern Volcanic Mud Flow Vernal Pool*	CTT44132CA	None	None	G1	S1.1	
obtuse starwort *Stellaria obtusa*	PDCAR0X0U0	None	None	G5	S4	4.3
osprey *Pandion haliaetus*	ABNKC01010	None	None	G5	S4	WL
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G4	S3	SSC
pappose tarplant *Centromadia parryi ssp. parryi*	PDAST4R0P2	None	None	G3T2	S2	1B.2
pink creamsacs *Castilleja rubicundula var. rubicundula*	PDSCR0D482	None	None	G5T2	S2	1B.2
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Red Bluff dwarf rush *Juncus leiospermus var. leiospermus*	PMJUN011L2	None	None	G2T2	S2	1B.1
Sacramento anthicid beetle *Anthicus sacramento*	IICOL49010	None	None	G1	S4	
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
scalloped moonwort *Botrychium crenulatum*	PPOPH010L0	None	None	G4	S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sierra arching sedge *Carex cyrtostachya*	PMCYP03M00	None	None	G2	S2	1B.2
Sierra blue grass *Poa sierrae*	PMPOA4Z310	None	None	G3	S3	1B.3
Sierra marten *Martes caurina sierrae*	AMAJF01014	None	None	G4G5T3	S3	
Sierra Nevada mountain beaver *Aplodontia rufa californica*	AMAFA01013	None	None	G5T3T4	S2S3	SSC
Sierra Nevada red fox - southern Cascades DPS *Vulpes vulpes necator pop. 1*	AMAJA03016	None	Threatened	G5TNR	S1	
Sierra Nevada yellow-legged frog *Rana sierrae*	AAABH01340	Endangered	Threatened	G1	S1	WL
silver-haired bat *Lasionycteris noctivagans*	AMACC02010	None	None	G3G4	S3S4	
slender Orcutt grass *Orcuttia tenuis*	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
slender silver moss *Anomobryum julaceum*	NBMUS80010	None	None	G5?	S2	4.2
song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
southern long-toed salamander *Ambystoma macrodactylum sigillatum*	AAAAA01085	None	None	G5T4	S3	SSC
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
subtle orache *Atriplex subtilis*	PDCHE042T0	None	None	G1	S1	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tall alpine-aster *Oreostemma elatum*	PDASTEA020	None	None	G2	S2	1B.2
Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010	None	None	G4	S2	SSC
Tracy's sanicle *Sanicula tracyi*	PDAPI1Z0K0	None	None	G4	S4	4.2
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
upswept moonwort *Botrychium ascendens*	PPOPH010S0	None	None	G3G4	S2	2B.3
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2T3	S3	
veiny monardella *Monardella venosa*	PDLAM18082	None	None	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	
water bulrush *Schoenoplectus subterminalis*	PMCYP0Q1G0	None	None	G4G5	S3	2B.3
water star-grass *Heteranthera dubia*	PMPON03010	None	None	G5	S2	2B.2
watershield *Brasenia schreberi*	PDCAB01010	None	None	G5	S3	2B.3
Wawona riffle beetle *Atractelmis wawona*	IICOL58010	None	None	G3	S1S2	
western bumble bee *Bombus occidentalis*	IIHYM24250	None	None	G2G3	S1	
western goblin *Botrychium montanum*	PPOPH010K0	None	None	G3	S2	2B.1
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G4G5T4	S3S4	SSC
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western red bat *Lasiurus blossevillii*	AMACC05060	None	None	G4	S3	SSC
western ridged mussel *Gonidea angulata*	IMBIV19010	None	None	G3	S1S2	
western spadefoot *Spea hammondii*	AAABF02020	None	None	G2G3	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-stemmed clarkia *Clarkia gracilis ssp. albicaulis*	PDONA050J1	None	None	G5T3	S3	1B.2
willow flycatcher *Empidonax traillii*	ABPAE33040	None	Endangered	G5	S1S2	
woolly meadowfoam *Limnanthes floccosa ssp. floccosa*	PDLIM02043	None	None	G4T4	S3	4.2
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	PDMAL0H0R3	None	None	G5T3	S3	1B.2
yellow warbler *Setophaga petechia*	ABPBX03010	None	None	G5	S3S4	SSC
Yuma myotis *Myotis yumanensis*	AMACC01020	None	None	G5	S4	

Record Count: 145

CNPS Rare Plant Inventory

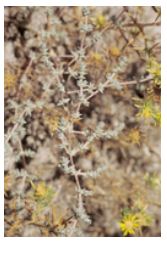
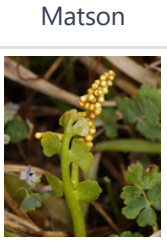
California Native Plant Society

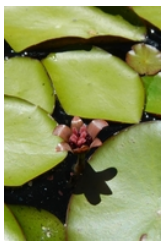
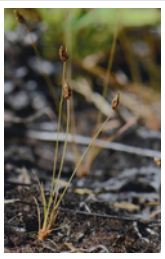
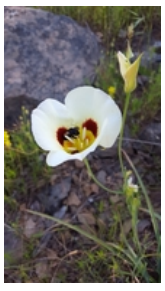
Search Results

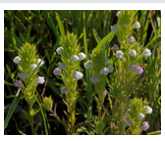
125 matches found. Click on scientific name for details

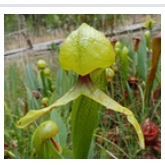
Search Criteria: County is one of [**BUT**]

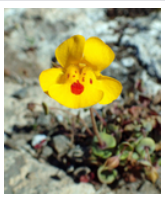
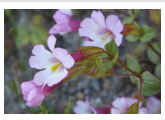
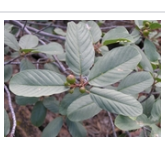
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Agrostis hendersonii	Henderson's bent grass	Poaceae	annual herb	Apr-Jun	None	None	G2Q	S2	3.2	 ©2005 Steve Matson
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	None	None	G2	S2	1B.2	 © 2019 Steven Perry
Allium sanbornii var. *sanbornii*	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	None	None	G4T3T4	S3S4	4.2	 ©2018 Steven Perry
Anomobryum julaceum	slender silver moss	Bryaceae	moss		None	None	G5?	S2	4.2	 © 2013 Scot Loring
Arctostaphylos mewukka ssp. *truei*	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	None	None	G4?T3	S3	4.2	 © 2008 George W. Hartwell
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	None	None	G3	S3	4.2	No Photo Available
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4	S4	4.3	 ©2012 Tim Kellison
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	No Photo Available
Atriplex cordulata var. *cordulata*	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G3T2	S2	1B.2	 © 1994 Robert E.

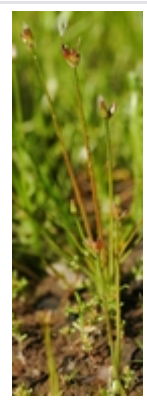
										Preston, Ph.D.
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1	 © 2000 Robert E. Preston, Ph.D.
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	(Apr)Jun-Sep(Oct)	None	None	G1	S1	1B.2	 © 2000 Robert E. Preston, Ph.D.
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual/perennial herb	Aug	None	None	G5	S4	4.2	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	 ©1998 Dean Wm. Taylor
Betula glandulosa	dwarf resin birch	Betulaceae	perennial deciduous shrub	May-Jul	None	None	G5	S2	2B.2	 © 2015 Dean Wm. Taylor
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	None	None	G3G4	S2	2B.3	 © 2005 Steve Matson
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S3	2B.2	 © 2016 Steve Matson
Botrychium minganense	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	None	None	G4G5	S3	2B.2	 © 2011 Aaron E. Sims
Botrychium montanum	western goblin	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	None	None	G3	S2	2B.1	 ©2012 Belinda Lo

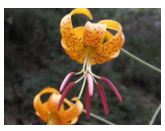
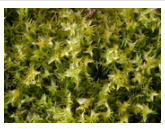
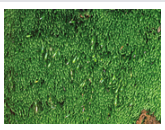
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	None	None	G5	S3	2B.3	 ©2014 Kirsten Bovee
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	 © 2011 Steven Perry
Brodiaea sierrae	Sierra foothills brodiaea	Themidaceae	perennial bulbiferous herb	May-Aug	None	None	G3	S3	4.3	 © 2006 George W. Hartwell
Bryum chryseum	brassy bryum	Bryaceae	moss		None	None	G5	S3	4.3	No Photo Available
Bulbostylis capillaris	thread-leaved beakseed	Cyperaceae	annual herb	Jun-Aug	None	None	G5	S3	4.2	 ©2016 Ryan Batten
Calochortus syntrophus	Callahan's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jun	None	None	G2	S2	1B.1	 ©2018 Julie Kierstead Nelson
Calycadenia oppositifolia	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	None	None	G3	S3	4.2	No Photo Available
Calystegia atriplicifolia ssp. *buttensis*	Butte County morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Jul	None	None	G5T3	S3	4.2	 ©2018 Sierra Pacific Industries
Campylopodiella stenocarpa	flagella-like atractylocarpus	Dicranaceae	moss		None	None	G5	S1?	2B.2	No Photo Available
Cardamine pachystigma var. *dissectifolia*	dissected-leaved toothwort	Brassicaceae	perennial rhizomatous herb	Feb-May	None	None	G3G5T2Q	S2	1B.2	No Photo Available

dissectifolia	toothwort									Available
Carex cyrtostachya	Sierra arching sedge	Cyperaceae	perennial herb	May-Aug	None	None	G2	S2	1B.2	No Photo Available
Carex davyi	Davy's sedge	Cyperaceae	perennial herb	May-Aug	None	None	G3	S3	1B.3	No Photo Available
Carex geyeri	Geyer's sedge	Cyperaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S4	4.2	 © 2011 Ryan Batten
Carex limosa	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	2B.2	 Steve Matson 2009
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	 ©2010 Vernon Smith
Centromadia parryi ssp. *parryi*	pappose tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.2	No Photo Available
Centromadia parryi ssp. *rudis*	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	None	None	G4G5T4	S4	4.2	No Photo Available
Clarkia gracilis ssp. *albicaulis*	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	None	None	G5T3	S3	1B.2	No Photo Available
Clarkia mildrediae ssp. *lutescens*	golden-anthered clarkia	Onagraceae	annual herb	Jun-Aug	None	None	G3T3	S3	4.2	No Photo Available
Clarkia mildrediae ssp. *mildrediae*	Mildred's clarkia	Onagraceae	annual herb	May-Aug	None	None	G3T2T3	S3?	1B.3	No Photo Available
Clarkia mosquinii	Mosquin's clarkia	Onagraceae	annual herb	May-Jul(Sep)	None	None	G2	S2	1B.1	No Photo Available
Claytonia palustris	marsh claytonia	Montiaceae	perennial herb	May-Oct	None	None	G4	S4	4.3	 ©2006 Dean Wm. Taylor,

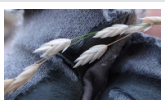
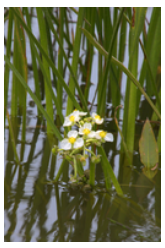
										Ph.D.
Claytonia parviflora ssp. *grandiflora*	streambank spring beauty	Montiaceae	annual herb	Feb-May	None	None	G5T3	S3	4.2	No Photo Available
Cryptantha rostellata	red-stemmed cryptantha	Boraginaceae	annual herb	Apr-Jun	None	None	G4	S3	4.2	No Photo Available
Cypripedium californicum	California lady's-slipper	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	None	None	G4	S4	4.2	 © 2012 Barry Rice
Cypripedium fasciculatum	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	None	None	G4	S4	4.2	 © 2013 Scot Loring
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	None	None	G4	S4	4.2	 ©2021 Scot Loring
Darlingtonia californica	California pitcherplant	Sarraceniaceae	perennial rhizomatous herb (carnivorous)	Apr-Aug	None	None	G4	S4	4.2	 © 2021 Scot Loring
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2?	1B.2	No Photo Available
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G3	S3	4.2	No Photo Available
Drosera anglica	English sundew	Droseraceae	perennial herb (carnivorous)	Jun-Sep	None	None	G5	S2	2B.3	 Barry Rice 2007
Eremogone cliftonii	Clifton's eremogone	Caryophyllaceae	perennial herb	Apr-Sep	None	None	G3	S3	1B.3	No Photo Available
Erigeron inornatus var. *calidipetris*	hot rock daisy	Asteraceae	perennial herb	Jun-Sep	None	None	G5T3	S3	4.3	 ©2006 Dean Wm. Taylor
Erigeron petrophilus var. *sierrensis*	northern Sierra daisy	Asteraceae	perennial rhizomatous herb	Jun-Oct	None	None	G4T4	S4	4.3	No Photo Available
Eriogonum	Ahart's	Polygonaceae	perennial herb	Jun-Sep	None	None	G5T3	S3	1B.2	

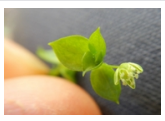
umbellatum var. *ahartii*	buckwheat									No Photo Available
Eriophorum gracile	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	None	None	G5	S4	4.3	 ©2011 Steven Perry
Erythranthe filicifolia	fern-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	 Belinda Lo, 2020
Erythranthe glaucescens	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	None	None	G3G4	S3S4	4.3	 Neal Kramer 2020
Erythranthe inconspicua	small-flowered monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	 © 2017 Debra L. Cook
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	FT	None	G1	S1	1B.2	No Photo Available
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2	 ©2021 Scot Loring
Frangula purshiana ssp. *ultramafica*	Caribou coffeeberry	Rhamnaceae	perennial deciduous shrub	May-Jul	None	None	G4T2T3	S2S3	1B.2	 ©2014 Kirsten Bovee
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3Q	S3	3.2	 ©2009 Sierra Pacific Industries
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2G3	S2S3	1B.2	 © 2015 Steve Matson
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3	 © 2019 Barry

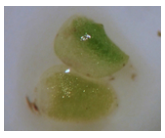
										Breckling
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	 © 2017 John Doyen
Hesperocyparis bakeri	Baker cypress	Cupressaceae	perennial evergreen tree		None	None	G3	S3	4.2	 © 2021 Scot Loring
Heteranthera dubia	water star-grass	Pontederiaceae	perennial herb (aquatic)	Jul-Oct	None	None	G5	S2	2B.2	 ©2010 Louis-M. Landry
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	 © 2020 Steven Perry
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G4	S3	2B.1	 © 2020 Matt C. Berger
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	 © 2004 Carol W. Witham
Juncus leiospermus var. *leiospermus*	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	None	None	G2T2	S2	1B.1	 ©2016 Dylan Neubauer
Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	Feb-May	None	None	G3	S3	4.2	 © 2009 Zoya Akulova
Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	None	None	G2	S2	1B.2	 © 2013 Jake Ruygt

Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	 © 2007 Len Blumin
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	 © 2010 Aaron Schusteff
Lewisia cantelovii	Cantelow's lewisia	Montiaceae	perennial herb	May-Oct	None	None	G3	S3	1B.2	 ©2005 Steve Matson
Lewisia kelloggii ssp. *hutchisonii*	Hutchison's lewisia	Montiaceae	perennial herb	(Apr)May-Aug	None	None	G3G4T3Q	S3	3.2	 Dean Wm. Taylor 2006
Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None	G4T3	S3	4.2	 © 2008 Sierra Pacific Industries
Limnanthes floccosa ssp. *californica*	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	FE	CE	G4T1	S1	1B.1	 © 2007 George W. Hartwell
Limnanthes floccosa ssp. *floccosa*	woolly meadowfoam	Limnanthaceae	annual herb	Mar-May(Jun)	None	None	G4T4	S3	4.2	 © 2021 Scot Loring
Meesia triquetra	three-ranked hump moss	Meesiaceae	moss	Jul	None	None	G5	S4	4.2	 Steve Matson 2008
Meesia uliginosa	broad-nerved hump moss	Meesiaceae	moss	Jul-Oct	None	None	G5	S3	2B.2	 ©2013 Scot Loring
Microseris sylvatica	sylvan microseris	Asteraceae	perennial herb	Mar-Jun	None	None	G4	S4	4.2	No Photo Available
Mielichhoferia elongata	elongate copper moss	Mielichhoferiaceae	moss		None	None	G5	S3S4	4.3	 © 2012 John Game

Monardella venosa	veiny monardella	Lamiaceae	annual herb	May-Jul	None	None	G1	S1	1B.1	 © 2007 George W. Hartwell
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	 ©2021 Scot Loring
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	 © 2013 Justy Leppert
Oreostemma elatum	tall alpine-aster	Asteraceae	perennial herb	Jun-Aug	None	None	G2	S2	1B.2	No Photo Available
Packera eurycephala var. *lewisrosei*	Lewis Rose's ragwort	Asteraceae	perennial herb	Mar-Jul(Aug-Sep)	None	None	G4T2	S2	1B.2	No Photo Available
Paronychia ahartii	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	None	None	G3	S3	1B.1	 © 2004 Carol W. Witham
Peltigera gowardii	western waterfan lichen	Peltigeraceae	foliose lichen (aquatic)		None	None	G4?	S3	4.2	 © 2021 Scot Loring
Penstemon heterodoxus var. *shastensis*	Shasta beardtongue	Plantaginaceae	perennial herb	May-Sep	None	None	G5T3	S3	4.3	 Sierra Pacific Industries (2009)
Penstemon personatus	closed-throated beardtongue	Plantaginaceae	perennial herb	Jun-Sep(Oct)	None	None	G2	S2	1B.2	No Photo Available
Perideridia bacigalupii	Bacigalupi's yampah	Apiaceae	perennial herb	Jun-Aug	None	None	G3	S3	4.2	No Photo Available
Piperia colemanii	Coleman's rein orchid	Orchidaceae	perennial herb	Jun-Aug	None	None	G4	S4	4.3	 © 2005 Dean Wm. Taylor
Plagiobryoides	wine-colored	Bryaceae	moss		None	None	G3G4	S3S4	4.2	

vinosula	tufa moss									No Photo Available
Poa sierrae	Sierra blue grass	Poaceae	perennial rhizomatous herb	Apr-Jul	None	None	G3	S3	1B.3	 © 2012 Belinda Lo
Polygonum bidwelliae	Bidwell's knotweed	Polygonaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	 ©2020 Neal Kramer
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G3	S2	1B.2	No Photo Available
Rhamnus alnifolia	alder buckthorn	Rhamnaceae	perennial deciduous shrub	May-Jul	None	None	G5	S3	2B.2	No Photo Available
Rhynchospora californica	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	None	None	G1	S1	1B.1	No Photo Available
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	None	None	G5	S1	2B.2	 ©2004 Dean Wm. Taylor
Rupertia hallii	Hall's rupertia	Fabaceae	perennial herb	Jun-Aug(Sep)	None	None	G2G3	S2S3	1B.2	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	 ©2013 Debra L. Cook
Sanicula tracyi	Tracy's sanicle	Apiaceae	perennial herb	Apr-Jul	None	None	G4	S4	4.2	 ©2014 Zoya Akulova
Schoenoplectus subterminalis	water bulrush	Cyperaceae	perennial rhizomatous herb (aquatic)	Jun-Aug(Sep)	None	None	G4G5	S3	2B.3	 Dean Wm. Taylor (1996)
Sedum albomarginatum	Feather River stonecrop	Crassulaceae	perennial herb	May-Jun	None	None	G2	S2	1B.2	No Photo Available

Sidalcea gigantea	giant checkerbloom	Malvaceae	perennial rhizomatous herb	(Jan-Jun)Jul-Oct	None	None	G3	S3	4.3	 ©2018 Sierra Pacific Industries
Sidalcea robusta	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr-Jun	None	None	G2	S2	1B.2	No Photo Available
Silene occidentalis ssp. *longistipitata*	long-stiped campion	Caryophyllaceae	perennial herb	Jun-Aug	None	None	G4T2Q	S2	1B.2	 © 2013 Kirsten Bovee
Silene occidentalis ssp. *occidentalis*	Western campion	Caryophyllaceae	perennial herb	Jun-Aug	None	None	G4T3	S3	4.3	 ©2011 Sierra Pacific Industries
Stellaria longifolia	long-leaved starwort	Caryophyllaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S2	2B.2	 ©2016 Keir Morse
Stellaria obtusa	obtuse starwort	Caryophyllaceae	perennial rhizomatous herb	May-Sep(Oct)	None	None	G5	S4	4.3	 ©2014 Kirsten Bovee
Streptanthus drepanoides	sickle-fruit jewelflower	Brassicaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3	 ©2012 Julie Kierstead Nelson
Streptanthus longisiliquus	long-fruit jewelflower	Brassicaceae	perennial herb	Apr-Sep	None	None	G3	S3	4.3	 ©2008 Sierra Pacific Industries
Stuckenia filiformis ssp. *alpina*	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2	 Dana York (2016)

Trichodon cylindricus	cylindrical trichodon	Ditrichaceae	moss		None	None	G4G5	S2	2B.2	No Photo Available
Trifolium jokerstii	Butte County golden clover	Fabaceae	annual herb	Mar-May	None	None	G2	S2	1B.2	No Photo Available
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	G1	S1	1B.1	 ©2008 F. Gauna
Utricularia intermedia	flat-leaved bladderwort	Lentibulariaceae	perennial stoloniferous herb (carnivorous) (aquatic)	Jul-Aug	None	None	G5	S3	2B.2	 Barry Rice 2004
Utricularia minor	lesser bladderwort	Lentibulariaceae	perennial stoloniferous herb (carnivorous) (aquatic)	(May-Jun)Jul-Aug	None	None	G5	S3	4.2	 Barry Rice 2009
Vaccinium coccineum	Siskiyou Mountains huckleberry	Ericaceae	perennial deciduous shrub	Jun-Aug	None	None	G3Q	S2S3	3.3	No Photo Available
Viola tomentosa	felt-leaved violet	Violaceae	perennial herb	(Apr)May-Oct	None	None	G3	S3	4.2	No Photo Available
Wolffia brasiliensis	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr-Dec	None	None	G5	S2	2B.3	 © 2021 Scot Loring

Showing 1 to 125 of 125 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 24 June 2022].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: June 23, 2022
Project Code: 2022-0057404
Project Name: Butte County Routine Maintenance Agreement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0057404
Event Code: None
Project Name: Butte County Routine Maintenance Agreement
Project Type: Culvert Repair/Replacement/Maintenance
Project Description: Butte County Routine Maintenance Agreement
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.72373975,-121.57949566249943,14z

Counties: California

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Sierra Nevada Yellow-legged Frog *Rana sierrae* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/9529	Endangered

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Butte County Meadowfoam *Limnanthes floccosa ssp. californica* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4223	Endangered
Greene's Tuctoria *Tuctoria greenei* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573	Endangered
Hairy Orcutt Grass *Orcuttia pilosa* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2262	Endangered
Hoover's Spurge *Chamaesyce hooveri* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3019	Threatened
Layne's Butterweed *Senecio layneae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4062	Threatened
Slender Orcutt Grass *Orcuttia tenuis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

Critical habitats

There are 9 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Butte County Meadowfoam *Limnanthes floccosa ssp. californica* https://ecos.fws.gov/ecp/species/4223#crithab	Final
California Red-legged Frog *Rana draytonii* https://ecos.fws.gov/ecp/species/2891#crithab	Final
Conservancy Fairy Shrimp *Branchinecta conservatio* https://ecos.fws.gov/ecp/species/8246#crithab	Final
Greene's Tuctoria *Tuctoria greenei* https://ecos.fws.gov/ecp/species/1573#crithab	Final
Hairy Orcutt Grass *Orcuttia pilosa* https://ecos.fws.gov/ecp/species/2262#crithab	Final
Hoover's Spurge *Chamaesyce hooveri* https://ecos.fws.gov/ecp/species/3019#crithab	Final
Vernal Pool Fairy Shrimp *Branchinecta lynchi* https://ecos.fws.gov/ecp/species/498#crithab	Final

NAME	STATUS
Vernal Pool Tadpole Shrimp *Lepidurus packardi* https://ecos.fws.gov/ecp/species/2246#crithab	Final
Yellow-billed Cuckoo *Coccyzus americanus* https://ecos.fws.gov/ecp/species/3911#crithab	Final

IPaC User Contact Information

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APPENDIX D. SPECIAL STATUS SPECIES POTENTIAL TABLE

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California red-legged frog	*Rana draytonii*	Fed: State: CDFW:	T - SSC	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Associated with humid forests, woodlands, grasslands, coastal scrub, and streamsides. Requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat; estivation occurs from late summer to early winter. If wetlands are dry, requires animal burrows or other moist refuges. Occurs close to permanent and quiet stream pools, marshes, and ponds. Breeds from March to July in northern regions and January to July in southern regions. Occurs from elevations near sea level to 5,200 feet.	CH	**High Potential**: The County contains potentially suitable deep permanent water sources and riparian habitat that is suitable for the species. There have been two recently (<30 years) documented CNDDB occurrences of the species within the County. Additionally, there is final critical habitat for the species within the County (USFWS 2010).
California tiger salamander – Central California DPS	*Ambystoma californiense pop. 1*	Fed: State: CDFW:	T T WL	Habitat is limited to vernal pools, seasonal ponds, grassland, and oak savannah plant communities. Requires terrestrial habitat and temporary ponds for breeding. Prefers to be underground in animal burrows (typically in California ground squirrel, valley pocket gophers, and moles burrows). Occurs from elevations near sea level to 2,000 feet.	HP	**Presumed Absent:** The County contains potentially suitable vernal pools and springs for the species. There are no recently documented CNDDB occurrences of this species within the County; the last occurrence was in 1965. The species is now largely extirpated from its Central California range and is not considered to occur north of Yolo County (CDFW 2009).
Cascades frog	*Rana cascadae*	Fed: State: CDFW:	- CT, E SSC	Occurs in northern California and regions throughout the Cascades Mountains of Oregon and Washington. Found in wet mountain areas in open coniferous forests and areas near timberline such as streams, pools, and areas with marshes. Typically occurs near water (including regions with winter snow) and hibernates during the winter in mud. Females lay eggs in water. Occurs in elevations higher than 2,000 feet.	HP	**Moderate Potential:** The County contains potentially suitable creeks, streams, wetlands, and riparian habitat, as well as coniferous forests over 2,000 feet in elevation. There have been three historic and two recent (2014, 2015) documented CNDBB occurrences of the species within the County.
Foothill yellow-legged frog	*Rana boylii*	Fed: State:	- T	Inhabits shallow streams and riffles with rocky substrate and open, sunny banks in	HP	**High Potential**: The County contains potentially suitable streams, rivers, and

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	SSC	a variety of habitats including chaparral and woodland forests. Tadpoles require water for at least three or four months to complete development. Breeds March to May, with eggs laid in clusters on the downstream side of rocks in shallow, slow-moving water, attached to rocks, pebbles, and vegetation. Occurs from elevations near sea level to 6,700 feet.		creeks as well as woodland forests. There have been no recently documented CNDDB occurrences of the species within the County; however, the County is known to be within the historic range of the species (Calherps 2022) and there are numerous recent research-grade iNaturalist occurrences of the species within the County (iNaturalist 2022).
Sierra Nevada yellow-legged frog	*Rana sierrae*	Fed: State: CDFW:	E T WL	Occurs within northern and central Sierra Nevada. Inhabits streams, lakes and ponds within montane riparian, lodgepole pine, subalpine conifer, and wet meadow communities. Breeding habitat requires a deep, permanent water source that does not dry out in summer and at depths preventing bottoms from freezing in winter; fish must not be present. Breeds after water source is free of ice (June-August); occurs at mid to high elevations (4,500-12,000 feet).	HP	**Low Potential:** The County contains potentially suitable streams, lakes, and ponds, and there have been four historic CNDBB occurrences of the species within the County. However, there is only a small portion of the County that occurs within the species' elevation range and has potential to support the species, and recent observations of the species are limited to higher elevation forests in neighboring counties. The 2000 petition to list the species under the FESA states that Butte County populations of the species are extirpated.
Southern long-toed salamander	*Ambystoma macrodactylum sigillatum*	Fed: State: CDFW:	- - SSC	Species inhabits alpine meadows, high mountain ponds, and lakes. Adults spend most of their life under wood, logs, rocks, bark, or burrows excavated by ground squirrel and moles in vicinity to breeding sites (ponds, lakes and streams). Breeding requires permanent or temporary ponds, lakes and flooded meadows.	HP	**Moderate Potential:** There have been four recent CNDDB occurrences of the species within the County, the most recent one being in 2014. The County contains potentially suitable ponds, lakes, and riparian habitat; however, there is only a small portion of the County that occurs within the species' elevation range and has potential to support the species.
Western spadefoot	*Spea hammondii*	Fed: State: CDFW:	- - SSC	Inhabits open areas with sandy or gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Burrows underground from most of the year and is active above ground during rainfall. Requires vernal, shallow, temporary	HP	**High Potential:** The County contains temporary pond and vernal pool habitat which is suitable breeding habitat for the species. Additionally, there have been six recent and four historic CNDDB occurrences of the species within the County.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				pools formed by heavy winter rains for reproduction. These pools must be free of bullfrogs, fish, and crayfish. Breeds from late winter to March.		
Bird Species						
American peregrine falcon	*Falco peregrinus anatum*	Fed: State: CDFW:	D D FP	Inhabits riparian areas and coastal and inland wetland habitats yearlong. During the breeding season, occurs near wetlands, lakes, rivers, or other water where it nests on high cliffs, banks, dunes, and mounds; may nest on man-made structures and occasionally tree or snag cavities. Nesting locations must contain protected cliffs or ledges for cover. Nests are usually scrapes on a depression or ledge in an open site. Breeds from early March to late August.	HP	**High Potential:** The County contains riparian and inland wetland habitat suitable for the species. Nesting locations such as cliffs, mounds, and man-made structures are present for the species. Additionally, there have been four recent CNDDB occurrences of the species within the County.
Bald eagle	*Haliaeetus leucocephalus*	Fed: State: CDFW:	D E FP	Occurs near ocean shores, lakes, rivers, rangelands, and coastal wetlands for nesting and wintering; nesting occurs within one mile of a water source with abundant fish near mountain forests and woodlands. Nests in large, old growth, or dominant live trees with open branches. Prefers ponderosa pines and often chooses the largest tree in a stand. Usually will not nest near evident human disturbance. Prefers lower elevations and not found in the high Sierra Nevada. The breeding season is from February through July.	HP	**High Potential:** The County contains lakes and rivers that are suitable for the species. There are also old growth forests and ponderosa pine stands suitable for the species to nest in within the County. Furthermore, there have been eight recent CNDDB occurrences of the species within the County.
Bank swallow	*Riparia riparia*	Fed: State: CDFW:	- T -	A migratory colonial nester inhabiting lowland and riparian habitats west of the deserts during spring through fall. Majority of current breeding populations occur along the Sacramento and Feather Rivers in the north Central Valley. Forages in grassland, brushland, wetlands, and cropland during migration. Requires vertical banks or cliffs with fine textured/sandy soils for	HP	**High Potential:** The County contains riparian habitat that is suitable for the species. Both the Sacramento and Feather Rivers run through the County, where the majority of breeding populations are known to occur. The County also has wetlands and lakes that can potentially be used for migrating and nesting individuals. There have been 32 recent and eight historic occurrences of the species within the County.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes, or the ocean. Breeds from May through July.		
Black swift	*Cypseloides niger*	Fed: State: CDFW:	- - SSC	Returns to California in May and breeds locally in the Sierra Nevada and Cascade Range, the San Gabriel, San Bernardino, and San Jacinto Mountains, and in coastal bluffs and mountains from San Mateo County to San Luis Obispo County from June through August. Nests in small colonies within moist crevices or caves on sea cliffs over the surf, or within cliffs of deep canyons behind or immediately adjacent to waterfalls. Nests are constructed of mud mixed with moss, ferns, seaweed, and other plant materials, kept moist by mist from the surf or waterfalls. Forages over many habitats and may undergo long distance foraging flights. Avoids arid regions. Breeds early June to late August.	HP	**Presumed Absent:** The County contains riparian habitat; however, there is only one CNDDB occurrence of the species within the entire County (recorded in 2010), and due to the species' migratory patterns it is unlikely to be encountered in the County outside of the nesting season.
Burrowing owl	*Athene cunicularia*	Fed: State: CDFW:	- - SSC	Inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Associated with open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old small mammal burrows but may dig own burrow in soft soil. Nests are lines with excrement, pellets, debris, grass, and feathers. May use pipes, culverts, and nest boxes, and even buildings where burrows are scarce. Breeding occurs March through August (below 5,300 feet).	HP	**Low Potential:** The County contains potentially suitable habitat for the species and there are eight CNDDB occurrences of the species in the County, the most recent of which was documented in 2018. The anticipated maintenance areas would be concentrated around waterways and riparian habitats; however, the species is known to occupy culverts on occasion and open floodplains in proximity to potential maintenance areas. There is a low potential that this species would be encountered during work covered under the RMA.
California black rail	*Laterallus jamaicensis coturniculus*	Fed: State: CDFW:	- T FP	Inhabits brackish and freshwater emergent wetlands in delta and coastal locations, including the San Francisco Bay area, Sacramento-San Joaquin Delta, Morro Bay, the Salton Sea, and lower	HP	**Moderate Potential:** A majority this rare species' population occurs in tidal salt marshes of the northern San Francisco Bay region, mostly in San Pablo and Suisun Bays. Smaller populations occur in freshwater

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				Colorado River. Occurs in tidal emergent wetlands dominated by pickleweed, in brackish marshes dominated by bulrushes with pickleweed, and in freshwater wetlands dominated by bulrushes, cattails, and saltgrass. Prefers high wetland areas, away from areas experiencing fluctuating water levels. Requires vegetation providing adequate overhead cover for nesting. Eggs are laid from March through June.		marshes in the foothills of the Sierra Nevada. There have been 10 historic and one recent (2008) occurrences of the species within the County. The more recent occurrence within the County is a part of the known resident population of the species in the Sierra Nevada foothills.
Greater sandhill crane	*Antigone canadensis tabida*	Fed: State: CDFW:	- T FP	Has a range that spans from Siberia and Alaska to California's Central Valley. Found near large freshwater marshes and ponds during the summer and on grainfields or prairies during the winter. In non-migratory populations, they lay eggs anytime between December and August. In migratory populations, sandhill cranes usually lay their eggs in April and May. Once very common breeders, unregulated hunting and habitat loss has resulted in a drastic reduction in population. Wintering populations of sandhill cranes find their home in the agricultural fields and wetlands of California's Central Valley. Population levels remain low; however, local habitat restoration and farmland management may serve to benefit the species.	HP	**Moderate Potential:** The County contains marshes and ponds that are potentially suitable for the species. The County falls within the species' geographic wintering range. Furthermore, there have been two recent (2003) and two historic CNDDB occurrences of the species within the County.
Least Bell's vireo	*Vireo bellii pusillus*	Fed: State: CDFW:	E E -	Summer resident of southern California inhabiting low elevation riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite and other low, dense vegetation as nesting site. Forages in dense brush and occasionally treetops. Known to occur in all four southern California national forests, with the largest population in the Los Padres National Forest (below 2,000 feet).	A	**Presumed Absent:** While the County contains riparian habitat, the species' small range occurs in southern and Baja California. There have been two historic CNDDB occurrences of the species within the County and both occurred 116 years ago.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Loggerhead shrike	*Lanius ludovicianus*	Fed: State: CDFW:	- - SSC	Associated with open canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Inhabits open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Rarely found in urbanized areas, but will inhabit open cropland. Nests are built on stable branches in densely-foliaged shrubs or trees. Breeds from March through May.	HP	**Low Potential:** The County contains valley foothill riparian habitats and open cropland which the species may inhabit. In addition, there is only one recent (2002) CNDDB occurrence of the species within the County and it is considered to have a low potential to occur.
Merlin	*Falco columbarius*	Fed: State: CDFW:	- - WL	Inhabits areas near forests, rivers, lakes, and bogs. The prairie subspecies inhabits riparian habitats and deciduous trees. Occurs in grasslands, open forests, and coastal areas during migratory seasons. Nests in confiders and deciduous trees, typically in abandoned nests of crows and hawks. Rarely nests in tree cavities, cliffs, or the ground. Breeds in semi-open areas with trees.	HP	**Moderate Potential:** The County contains lakes that are potentially suitable for the species. However, there has only been one recent CNDDB occurrence of the species within the County. There are five recent (since 2019) research-grade occurrences of the species within Butte County recorded on iNaturalist, and the species has a moderate potential to occur (iNaturalist 2022).
Northern goshawk	*Accipiter gentilis*	Fed: State: CDFW:	- - SSC	Inhabits dense, mature conifer and deciduous forest, with meadows, other openings, and riparian areas of north coast coniferous forest, subalpine coniferous forest, and upper montane coniferous forest communities. In winter may occur along the north coast throughout foothills, and in northern deserts, in pinyon-juniper and low-elevation riparian habitats. Nesting habitat includes north-facing slopes near water; breeds in February to April. Occurs at mid to high elevations.	HP	**Moderate Potential:** The County contains riparian areas of low-high elevations that are potentially suitable for the species. There are 10 CNDDB occurrences of the species within the County, the most recent of which was documented in 2004.
Northern harrier	*Circus hudsonius*	Fed: State: CDFW:	- - SSC	Occurs in flat, or hummocky, open areas of tall, dense grasses and moist or dry shrubs. Inhabits meadows, grasslands, open rangelands, desert sinks, and fresh or saltwater emergent wetland communities. Nesting occurs on the	HP	**Moderate Potential:** The County contains water sources, foraging, and nesting habitat that is potentially suitable for the species. There are two historic CNDDB occurrences of the species within the County and several research-grade iNaturalist occurrences of

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				ground within grasslands, grain fields, sagebrush or other shrubby vegetation. Nest sites are often chosen at marsh edges or in proximity to water. Breeds April through September (0-5,700 feet).		the species recorded since 2019 (iNaturalist 2022).
Osprey	*Pandion haliaetus*	Fed: State: CDFW:	- - WL	Inhabits coastlines, lakes, and rivers. Often found flying over bodies of water while hunting. Nests on the top of big trees close to water (water 12 miles away maximum). Some return to the same nest every year.	HP	**High Potential:** The County contains lakes and riparian habitat that are potentially suitable for the species. There are tree communities close to water that are potentially suitable for the species to nest in. There are 10 recent and one historic CNDDB occurrences of the species within the County. Several of these occurrences were on the Sacramento River. There have been more than 1,400 observations of this species within the County from citizen science data (iNaturalist 2022; eBird 2022).
Song Sparrow ("Modesto" population)	*Melospiza melodia pop. 1*	Fed: State: CDFW:	- - SSC	Found exclusively in the north-central portion of the Central Valley, with highest densities in the Butte Sink and Sacramento-San Joaquin River Delta. Usually found in open brushy habitats, along the borders of ponds or streams, abandoned pastures, desert washes, thickets, or woodland edges. Has a strong affinity for emergent freshwater marshes dominated by tules and cattails, riparian willow thickets, and valley oak forests with a blackberry understory. Nests found in base of shrubs or clumps of grass, requiring low, dense vegetation for cover, usually near water. Breeds from March through August.	A	**Presumed Absent:** While the County may contain habitats that are potentially suitable for the species, only the southwest region of the County is within the range of the species. There is only one CNDDB occurrence of the species within the County, which was documented 91 years ago. Due to the lack of recent occurrences the species is presumed absent.
Swainson's hawk	*Buteo swainsoni*	Fed: State: CDFW:	- T -	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.	HP	**High Potential:** The County contains riparian habitat, grasslands, and agricultural areas that are potentially suitable for this species. There are 16 recent and 10 historic CNDDB occurrences of the species within the County.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Tricolored blackbird	*Agelaius tricolor*	Fed: State: CDFW:	- T SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a foraging area containing insect prey, and is within 0.3 miles of open water. Forages in wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests in dense cattails, tules, willow, blackberry, wild rose, or tall herbs. Nests mid-March to early August, but may extend until October or November in the Sacramento Valley region.	HP	**High Potential:** The County contains suitable marsh, swamp, and wetland habitat for nesting and foraging. Furthermore, there are 30 CNDDB occurrences of the species within the County, most recently from 2015.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Fed: State: CDFW:	T E -	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June to August.	CH	**High Potential:** The County contains riparian habitats that are potentially suitable for the species. There are 11 recent and 12 historic CNDDB occurrences of the species within the County. There have been 22 observations of this species from citizen science data (iNaturalist 2022; eBird 2022). Furthermore, there is mapped final critical habitat for the species within the County (USFWS 2021).
Willow flycatcher	*Empidonax traillii*	Fed: State: CDFW:	- E -	Requires dense riparian systems or willow thickets in proximity to wetlands, ponds, or backwaters for nesting and roosting. Found at elevations up to 8, 000 feet. Nests in deciduous shrubs or trees, especially willow, from April through August.	HP	**Low Potential**: The County contains riparian habitats and wetlands that are potentially suitable for the species. There is only one CNDDB occurrence of the species within the County, documented in 1992. There have been approximately 320 observations of this species within the County from citizen science data (eBird 2022).
Yellow warbler	*Setophaga petechia*	Fed: State: CDFW:	- - SSC	Breeds in several southern California mountain ranges and throughout most of San Diego County. Prefers to nest in areas with trees and shrubs typical of low, open-canopy riparian woodland. Known to breed in riparian woodlands	HP	**High Potential:** The County contains riparian habitats and woodland in close proximity to wetland, lake, and other bodies of water. There is one CNDDB occurrence of the species within the County (2002). However, this species is considered to have a high

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				from coastal and desert lowlands and montane shrubbery in open conifer forests. Occurs up to 8,000 feet in the Sierra Nevada. Breeds April to August.		potential of occurring based on the 1,140 observations of this species within the County from citizen science data (eBird 2022).
Fish Species						
Chinook salmon – Central Valley spring-run ESU	*Oncorhynchus tshawytscha pop. 11*	Fed: State: CDFW:	T T -	Spawn upstream of the Sacramento and San Joaquin River watersheds. Occur in tributary streams to the Sacramento River and spawn in the main river, depending on dam operations for maintenance of suitable habitat. Suitable habitat conditions include streams with large gravel, small cobble, vegetation, and cold and turbid water.	HP	**High Potential:** The Sacramento River runs through the western border of the County and the County contains streams that are potentially suitable for the species. There are three CNDDB occurrences of the species within the County, the most recent recorded in the Lower Feather River. The species has a high potential to occur, within specific watersheds within the County.
Chinook salmon – Sacramento River winter-run ESU	*Oncorhynchus tshawytscha pop. 7*	Fed: State: CDFW:	E E -	Spawns in the main channel of the Sacramento River. May also occur in major tributaries to the Sacramento River. Suitable habitat conditions include streams with large gravel, small cobble, vegetation, and cold and turbid water.	HP	**Low Potential:** The species has been documented in the main stem of the Sacramento River upstream of the County. The species may be present in in the Sacramento River along the western border of the County.
Green sturgeon – southern DPS	*Acipenser medirostris pop. 1*	Fed: State: CDFW:	T - -	Inhabit the Sacramento and San Joaquin rivers and Delta. Spawn in the upper mainstem of the Sacramento River, also in the Feather and Yuba rivers. Extremely marine-oriented and frequents coastal bays and estuaries often. Spawns in gravel and cobble floors in fast flowing rivers.	HP	**Low Potential:** The species is known to use the Sacramento River along the western boundary of the County. There are no CNDDB records of the species within the County; however, it has a low potential to occur within the Sacramento River and its tributaries.
Hardhead	*Mylopharodon conocephalus*	Fed: State: CDFW:	- - SSC	Resident of Sacramento-San Joaquin and Russian River drainages. Inhabits low to mid-elevation lakes, reservoirs and streams, with preference to pools and runs with deep clear water, slow velocities and sand-gravel-boulder substrates. Prefers water temperatures at or above 68ºF and adequate flows to maintain dissolved oxygen levels. Spawning occurs from May through June in Central Valley streams and may extend into August in foothill streams, in gravel or rocky substrate. Juveniles	HP	**Low Potential:** The Sacramento River runs through the western border of the County. There is one recent CNDDB occurrence of the species within the County, documented in 2007 in the North Fork Feather River.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				require adequate vegetative cover along stream or lake margins.		
Steelhead – Central Valley DPS	*Oncorhynchus mykiss irideus pop. 11*	Fed: State: CDFW:	T - -	Utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawns in coastal watersheds while rearing occurs in freshwater or estuary habitats prior to emigrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October to May with spawning in January to April.	HP	**Moderate Potential:** Historically, the species spawned in the Sacramento River. There are five CNDDB occurrences of the species within the County, recorded in the Upper Sacramento River, the Lower Feather River, Butte Creek, Big Chico Creek, and Lower Stony Creek. This species is considered to have a moderate potential of occurring within specific watersheds in the County.
Invertebrate Species						
Conservancy fairy shrimp	*Branchinecta conservation*	Fed: State: CDFW:	E - -	Inhabits relatively large and turbid clay bottomed playa vernal pools. Requires pools to continuously hold water for a minimum of 19 days and must remain inundated into the summer months. Occupied playa pools typically are 1 to 88 acres in size, but may utilize smaller, less turbid pools.	CH	**Moderate Potential:** The County contains vernal pools that are potentially suitable for the species. There have been four recent and two historic occurrences of the species within the County. Additionally, there is final critical habitat for the species within the County (USFWS 2006).
Vernal pool fairy shrimp	*Branchinecta lynchi*	Fed: State: CDFW:	T - -	In California, species inhabits portions of Tehama County, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species is associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within	CH	**High Potential:** The County is well within the range of the species and contains vernal pools that are potentially suitable for the species. There have been 49 CNDDB occurrences of the species within the County. Furthermore, there is final critical habitat for this species mapped within the County (USFWS 2006).

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				pools reaching 75 F. Young emerge during cold-weather winter storms.		
Vernal pool tadpole shrimp	*Lepidurus packardi*	Fed: State: CDFW:	E - -	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	CH	**High Potential:** The County contains vernal pools that are potentially suitable for the species. There have been 39 CNDDB occurrences of the species within the County. Furthermore, there is final critical habitat for this species mapped within the County (USFWS 2006).
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Fed: State: CDFW:	T - -	Requires red or blue elderberry (*Sambucus sp.*) as host plants. Occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. Adults are active, feeding, and breeding from March until June (sea level-3,000 feet).	HP	**High Potential:** The County contains potentially suitable riparian habitat and valley oak woodland. Additionally, there are 22 CNDDB occurrences of the species within the County, the most recent recorded in 2014.
Mammal Species						
American badger	*Taxidea taxus*	Fed: State: CDFW:	- - SSC	Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Inhabits forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows. Maintains burrows within home ranges estimated between 338-1,700 acres, dependent on seasonal activity. Burrows are frequently re-used, but new burrows may be created nightly. Young are born in March and April within burrows dug in relatively dry, often sandy, soil, usually in areas with sparse overstory cover. Somewhat tolerant of human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 feet).	A	**Presumed Absent:** This species primarily occurs in the Great Plains of North America. While the County has woodland and marshes that are potentially suitable for the species, the maintenance is focused on the waterways and riparian habitats. As such, the species is unlikely to be impacted by any work done under the RMA. In addition, there have been no CNDDB occurrences of the species within the County. The nearest occurrence outside of the County is in Glenn County, approximately 12 miles away from the County boundaries.
Fisher	*Pekania pennanti*	Fed: State: CDFW:	- - SSC	Inhabits mature, dense habitats of north coast coniferous forest and old growth and riparian forest communities with a high percent of canopy closure, large trees and snags with cavities and other deformities, large diameter downed	A	**Presumed Absent:** The County contains riparian forests but lacks sufficient old growth forest habitat. There have been no recent and only one historic (1969) CNDDB occurrence of the species within the County. Furthermore, there is only a small portion of

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				wood and multiple canopy layers. Forest structural composition is critical for species; diversity in tree size and shape, light gaps and associated understory vegetation, natural structures (downed trees, broken limbs, snags, etc.) and limbs close to the ground. Breeds from late February to late April (1,970-8,530 feet). In the southern Sierra Nevada, the species is not found at elevations below 4,500 feet.		the County that occurs within the species' elevation range. Due to the lack of suitable habitat at an appropriate elevation range for the species, as well as the lack of recent occurrences, the species is presumed absent.
Pallid bat	*Antrozous pallidus*	Fed: State: CDFW:	- - SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year-round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet).	HP	**High Potential:** The County contains potentially suitable habitat for the species, including roosting sites such as trees, crevices, and bridges. Furthermore, there are three recent (2004-2006) occurrences of the species throughout the County; therefore, it has a high potential to occur.
Sierra Nevada mountain beaver	*Aplodontia rufa californica*	Fed: State: CDFW:	- - SSC	Species occurs in high mountain peaks with forested areas including coniferous and deciduous forests that contain second growth tree species and shrubs near water. Deep soils for burrowing are required by the species. The species diet includes forbs, grasses, and ferns such as sword fern and bracken ferns. Breeding occurs between November to March.	HP	**Moderate Potential:** The County contains forested areas in close proximity to water at high elevations that are potentially suitable for the species. There are five recent (2010-2014) CNDDB occurrences of the species within the County. The species has a wide home range is known to occur in isolated, disjunct populations; therefore, the species has a moderate potential to occur within the County.
Sierra Nevada red fox	*Vulpes vulpes necator*	Fed: State: CDFW:	E T -	Inhabits a wide range of habitats such as alpine and barren areas, subalpine forests, red fir forests, and mixed conifer forests at high elevations (upwards of 5,000 feet in the southern Cascades and 7,000 feet in the central Sierra Nevada). Historically distributed much of the	HP	**Presumed Absent:** The County contains potentially suitable habitats such as conifer forests at high elevations. However, there are no recent CNDDB occurrences of the species within the County and the closest recent occurrence is approximately 15 miles away from the County boundaries. In

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				Sierra Nevada, the southern Cascades near Lassen Peak and Mount Shasta, and the Klamath Mountains near Mount Eddy and the eastern Trinity Alps. The species has been observed in the Lassen Peak region and central Sierra Nevada in recent decades.		addition, there has been no documented occurrences of the species within the County within citizen science data (iNaturalist 2022). The County is not within the historical distribution of the species.
Townsend's big-eared bat	*Corynorhinus townsendii*	Fed: State: CDFW:	- - SSC	Species occurs throughout California in all habitats except subalpine and alpine communities. Requires caves, mines tunnels, buildings or man-made structures for day and night roosts. Rarely roots in tree cavities, limited to males and non-reproductive females. Young born May-June (0-6,561 feet 10,800 feet elevation).	HP	**Low Potential:** The County contains potentially suitable habitat for the species. There is only one historic (1990) occurrence of the species within the County; however, the County is within the species' range. The species may roost within bridges that could be affected by maintenance work and the species has a low potential to occur.
Western mastiff bat	*Eumops perotis californicus*	Fed: State: CDFW:	- - SSC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Prefers open, rugged, rocky areas where suitable crevices are available for day roosts. Roots in cliff face crevices (usually granite or consolidated sandstone), high buildings, trees and tunnels. Roosting sites must have a minimum 10-foot vertical drop. Births early April through August or September (sea level-8,475 feet).	HP	**Moderate Potential:** The County contains woodland and grassland habitats that are potentially suitable for the roosting and foraging of the species. There are eight CNDDB occurrences of the species within the County (1973-1999), which are documented on the Sacramento River and Feather River. The species is considered to have a moderate potential of occurrence due to the locations of its historic occurrences.
Western red bat	*Lasiurus blossevillii*	Fed: State: CDFW:	- - SSC	The species is found around North America, ranging from southern Canada, through the western United States, down to Central America and to the northern part of South America. These bats are migratory, similar to birds. They migrate to the southern parts of the Americas when it gets cold, and head north when the weather starts to warm up in northern parts. Unlike many bats, which roost in caves, this species will most likely be found in the forest roosting under leaves. The species is	HP	**High Potential:** The County contains riparian habitats that are potentially suitable for the roosting and foraging of the species. There are four CNDDB occurrences of the species within the County (1999-2006), which are documented on the Sacramento River and the West Branch Feather River. The species has a high potential to occur due to suitable habitat and recent occurrences.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				found in the foliage of trees and shrubs in forests, most commonly 1.5 to 12 m above the ground. The species often relies on riparian trees for roosting and foraging, and has been associated with mature stands of cottonwood, sycamore, and willows adjacent to streams. The species has also been associated with some fruit trees in orchards, and some evidence has been found to indicate that they may occasionally use caves. They can often be seen feeding in rural and suburban areas, around streetlights and other light sources. Mating occurs August-September and delayed fertilization to the following year and births are May-July.		
Reptile Species						
Coast horned lizard	*Phrynosoma blainvillii*	Fed: State: CDFW:	- - SSC	Inhabits valley-foothill hardwood, conifer forest, and riparian habitats, as well as pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes or flood plains. Frequently found near ant hills. Egg laying occurs from May to June, and some females may lay two clutches per year (sea level-8,000 feet).	A	**Low Potential:** The County contains chaparral, woodland, grassland, and riparian habitats that are potentially suitable for the species. Very few occurrences of the species have been documented within or adjacent to the County and the species is more commonly associated with upland habitats that will not be impacted by routine maintenance activities. The species is considered to have a low potential of occurring
Giant gartersnake	*Thamnophis gigas*	Fed: State: CDFW:	T T -	A highly aquatic species that inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland vegetation, such as	HP	**High Potential:** The County contains acres of wetland, pond, and riparian habitat that is potentially suitable for the species. Furthermore, there are 35 recent and seven historic CNDDB occurrences of the species in the County.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season. Mating occurs in the spring and females bear live young.		
Western pond turtle	*Emys marmorata*	Fed: State: CDFW:	- - SSC	A fully aquatic turtle of ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with aquatic vegetation. Suitable habitat includes woodland, forests, and grasslands. Requires logs, rocks, cattail mats, and exposed banks for basking. Suitable upland habitat (sandy banks or grassy open field) is required for reproduction, which begins in April and ends with egg laying as late as August (sea level to 4,700 feet).	HP	**High Potential:** The County contains riparian habitats, creeks, streams, and lakes that are potentially suitable for the species. Furthermore, there are 20 recent CNDDB occurrences of the species within the County.
Plant Species						
Adobe-lily	*Fritillaria pluriflora*	Fed: State: CNPS:	- - 1B.2	A perennial bulbiferous herb inhabiting adobe soils within chaparral, cismontane woodlands, and valley and foothill grasslands. Flowers February-April (200-2,300 feet).	A	**Moderate Potential:** The County contains vernal pools with adobe soils which may be suitable for the species Furthermore, there are seven historic CNDDB occurrences and one recent (2019) occurrence of the species within the County.
Ahart's buckwheat	*Eriogonum umbellatum var. ahartii*	Fed: State: CNPS:	- - 1B.2	A perennial herb native to limited foothill regions in Butte County. Found on serpentine slopes in oak or conifer woodlands. Blooms June to September (1,000-6,000 feet).	HP	**High Potential:** the species is endemic to the foothill regions of the County. The County contains woodlands that are potentially suitable for the species, and there are 21 recent CNDDB occurrences of the species within the County.
Ahart's dwarf rush	*Juncus leiospermus var. ahartii*	Fed: State: CNPS:	- - 1B.2	An annual herb inhabiting grassland swales, gopher mounds, and vernal pool margins of mesic valley and foothill grassland communities. Flowers March-May (100-750 feet).	HP	**Moderate Potential**: The County contains vernal pools and grasslands that are potentially suitable for the species. There are four recent and three historic CNDDB occurrences of the species within the County.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Ahart's paronychia	*Paronychia ahartii*	Fed: State: CNPS:	- - 1B.2	An annual herb inhabiting well-drained, rocky outcrops and volcanic upland of cismontane woodland, valley and foothill grassland, and vernal pool communities. Flowers February-June (100-1,675 feet).	HP	**Moderate Potential:** The County contains foothill grassland and vernal pools that are potentially suitable for the species. There are three recent and two historic CNDDB occurrences of the species within the County.
Alder buckthorn	*Rhamnus alnifolia*	Fed: State: CNPS:	- - 2B.2	A perennial deciduous shrub inhabiting meadows and seeps in riparian scrub, lower montane coniferous forest, and upper montane coniferous forest communities. Predominately found along wet meadow edges, seeps, and stream banks. Flowers May-July (4,800-6,600 feet).	HP	**Presumed Absent:** The County contains riparian habitat and streams that are potentially suitable for the species; however, while the only CNDDB occurrence of the species within the County was 41 years ago. Furthermore, the species' pattern of occurrences places it at a higher elevation range than that found in the County, and it is presumed absent.
Big-scale balsamroot	*Balsamorhiza macrolepis*	Fed: State: CNPS:	- - 1B.2	A perennial herb inhabiting open grassy or rocky slopes and valleys within chaparral, cismontane woodland, valley and foothill grassland communities; sometimes occurs in serpentinite soils. Flowers March-June (300-5,100 feet).	A	**Presumed Absent:** The maintenance that will be performed is focused on waterways and riparian habitats. As such, key habitat features for this species such as rocky slopes within woodland and grassland communities are unlikely to be impacted by the work done. In addition, there are only three historic CNDDB occurrences of the species within the County, reported over 100 years ago.
Brazilian watermeal	*Wolffia brasiliensis*	Fed: State: CNPS:	- - 2B.3	A perennial herb inhabiting ponds, marshes, swamps, and other shallow freshwater communities. Flowers April-December (65-330 feet).	HP	**Low Potential:** The County contains ponds and lakes that are potentially suitable for the species. The species is considered to have low potential to occur due to the three recent CNDDB occurrences within the County.
Broad-nerved hump moss	*Meesia uliginosa*	Fed: State: CNPS:	- - 2B.2	A moss native to California, inhabiting damp soil in bogs, fens, meadows, and seeps in subalpine and upper montane coniferous forest communities. Flowers in July and October (4,300-9,200 feet).	HP	**Low Potential:** The County contains damp soil and riparian habitats that are potentially suitable for the species. The species is considered to have low potential to occur due to the two recent CNDDB occurrences within the County.
Brownish beaked-rush	*Rhynchospora capitellata*	Fed: State: CNPS:	- - 2B.2	This grass like herb occurs in wetland and salt-marsh communities. Often found in wetland-riparian habitats within the	HP	**Moderate Potential:** The County contains wetland and riparian habitats that are potentially suitable for the species. There are six recent and one historic CNDDB

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				foothills of northern California (0-6,000 feet).		occurrences of the species within the County.
Butte County checkerbloom	*Sidalcea robusta*	Fed: State: CNPS:	- - 1B.2	A perennial herb that is endemic to Butte Co. Found in foothill woodland and chaparral communities where it blooms from April to June (0-5,000 feet).	HP	**High Potential:** The species is endemic to the County. There are 20 recent and 18 historic CNDDB occurrences of the species within the County. Several of these occurrences are located on or nearby waterways such as the Little Chico Creek.
Butte County fritillary	*Fritillaria eastwoodiae*	Fed: State: CNPS:	- - 3.2	A perennial bulbiferous herb inhabiting serpentine soils in chaparral, cismontane woodland, and openings of lower montane coniferous forest. Flowers March-June (165-4,920 feet).	HP	**High Potential:** The County has woodland habitat that is potentially suitable for the species. There are 78 recent and 30 historic CNDDB occurrences of the species within the County. Many of these occurrences are on waterways such as the Feather River.
Butte County golden clover	*Trifolium jokerstii*	Fed: State: CNPS:	- - 1B.2	An herb inhabiting mesic soils in vernal pools, valley grassland, and foothill grassland communities. It is endemic to Butte County, California, where it is known from eight or nine occurrences near Oroville. Blooms March-May (160-1,600 feet).	HP	**High Potential:** The species is endemic to the County. There are 10 recent CNDDB occurrences and one historic CNDDB occurrence of the species within the County.
Butte County meadowfoam	*Limnanthes floccose ssp. californica*	Fed: State: CNPS:	E E 1B.1	An annual herb inhabiting mesic soils in vernal pools, valley grassland, and foothill grassland communities. It has only been found in a narrow 28-mile strip along the eastern Sacramento Valley in Butte County. Blooms March-May (150-3,050 feet).	CH	**High Potential:** The species is endemic to the County. There are 20 recent CNDDB occurrences and one historic CNDDB occurrence of the species within the County. Furthermore, there is final critical habitat for the species within the County (USFWS 2006).
California alkali grass	*Puccinellia simplex*	Fed: State: CNPS:	- - 1B.2	An annual herb native to California, inhabiting alkaline and vernally mesic soils in sinks, flats, and lake margins. Associated with chenopod scrub, meadows, seeps, valley grassland, foothill grassland, and vernal pool communities. Blooms March-May (0-3,050 feet).	HP	**Presumed Absent:** The County contains vernal pools and grasslands that are potentially suitable for the species. The only CNDDB occurrences of the species within the County are historic (1982-1991), documented within the Grey Lodge Wildlife Area. The Grey Lodge Wildlife Area is managed by CDFW and the project would be limited to County-maintained land. Due to the localized occurrences of the species within State-owned land, the species is presumed absent from the project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
California beaked-rush	*Rhynchospora californica*	Fed: State: CNPS:	- - 1B.1	A perennial herb endemic to California, inhabiting lower montane coniferous forest, bogs, seeps, wet meadows, and freshwater marsh. Blooms May-July (150-3,300 feet).	HP	**Low Potential:** The County contains wetlands and marshes that are potentially suitable for the species. There are 3 recent CNDDB occurrences and one historic CNDDB occurrence of the species within the County.
California satintail	*Imperata brevifolia*	Fed: State: CNPS:	- - 2B.1	A perennial herb inhabiting mesic soils within springs, meadows, streambanks, floodplain, chaparral, coastal scrub, Mojave desert scrub, and riparian scrub communities. Blooms September-May (0-4,000 feet).	HP	**Low Potential:** The County contains riparian habitats that are potentially suitable for the species. There are two historic (1989) CNDDB occurrences of the species within the County, located along seeps and drainages.
Callahan's mariposa-lily	*Calochortus syntrophus*	Fed: State: CNPS:	- - 1B.1	A perennial herb native to California. Inhabits blue-oak woodlands, cismontane woodland, and stony sandstone. Blooms May-June (1,725-3,755 feet).	A	**Presumed Absent:** The maintenance that will be performed is focused on waterways and riparian habitats. As such, key habitat features for this species such as stony sandstone and woodlands are unlikely to be impacted by the work. In addition, there are no CNDDB occurrences of the species within the County.
Cantelow's lewisia	*Lewisia cantelovii*	Fed: State: CNPS:	- - 1B.2	A perennial herb inhabiting mesic, granitic, and serpentine seeps of broad-leafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest communities. Flowers May-October (1,080-4,500 feet)	HP	**Moderate Potential:** The County contains potentially suitable habitat for the species. In addition, most of the five recent and one historic CNDDB occurrences of the species within the County are located near the North Fork Feather River.
Caribou coffeeberry	*Frangula purshiana ssp. ultramafica*	Fed: State: CNPS:	- - 1B.2	Shrub that usually is found in non-wetlands but can occur within wetlands. Found in the northern High Sierra foothills (2,400-6,000 feet).	HP	**Low Potential:** The County contains potentially suitable habitat for the species at appropriate elevation. There is only one CNDDB occurrence of the species within the County, recorded in 2015.
Chaparral sedge	*Carex xerophila*	Fed: State: CNPS:	- - 1B.2	A perennial herb native to California, inhabiting serpentine or dry, gabbroic soils of chaparral, cismontane woodland, or lower montane coniferous forest communities. Flowers March-June (1,480-2,530 feet).	A	**Presumed Absent:** The maintenance that will be performed is focused on waterways and riparian habitats. As such, key habitat features such as chaparral and dry soils are unlikely to be effected by the work done. There are three recent CNDDB occurrences of the species within the County; however, these are outside of areas covered under the RMA and the species is presumed absent from the County's CDFW jurisdictional habitat.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Clifton's eremogone	*Eremogone cliftonii*	Fed: State: CNPS:	- - 1B.3	Found in the foothill regions of the High Sierra in northern California, usually near meadows or oak/conifer woodland. Blooms April to September (1,000-6,000 feet).	HP	**High Potential:** The County contains woodland and other habitats that are potentially suitable for this species. Most of the 27 recent and two historic CNDDB occurrences of the species within the County are clustered along the eastern boundary. Many of these occurrences are in close proximity to creeks such as the Cedar Creek and Dogwood Creek.
Close-throated beardtongue	*Penstemon personatus*	Fed: State: CNPS:	- - 1B.2	A perennial herb endemic to northern California and found in yellow pine forest communities. Blooms beginning in June, and can bloom until August (3,000-6,000 feet).	HP	**Low Potential:** The County contains forest communities that are potentially suitable for the species. There are five recent CNDDB occurrences and one historic CNDDB occurrence of this species within the County with several of these occurrences located near a creek.
Colusa layia	*Layia septentrionalis*	Fed: State: CNPS:	- - 1B.2	An annual herb endemic to foothill woodland, chaparral, and valley grassland regions of northern California. Blooms in April and May (0-3,000 feet).	A	**Presumed Absent:** The County contains potentially suitable habitat; however, the species is unlikely to occur in riparian habitats that would fall under CDFW jurisdiction. Furthermore, there is one historic (1969) occurrence of the species and more fieldwork is needed to verify this occurrence.
Cylindrical trichodon	*Trichodon cylindricus*	Fed: State: CNPS:	- - 2B.2	A moss native to California. Species inhabits broadleafed upland forest, meadows and seeps, and upper montane coniferous forest. Can be found on roadsides and sandy areas (165-6,570 feet).	HP	**Presumed Absent:** The County contains some habitats that are potentially suitable for the species; however, there have been no CNDDB occurrences of the species within the County.
Davy's sedge	*Carex davyi*	Fed: State: CNPS:	- - 1B.3	A perennial herb inhabiting moist meadows of subalpine coniferous forest and upper montane coniferous forest. Flowers May-August (4,900-10,500 feet).	HP	**Low Potential:** There is one CNDDB occurrence of the species within the County, reported in 2013 along Upper Willow Creek in the far eastern part of the County. The majority of the County's area is below the species' elevation range, but the species has a low potential to occur within maintenance areas due to the known population on Upper Willow Creek.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Dissected-leaved toothwort	*Cardamine pachystigma var. dissectifolia*	Fed: State: CNPS:	- - 1B.2	A perennial, rhizomatous herb that can be found in both wetland and non-wetland communities. Its habitat includes chaparral in the northern California foothills (0-6,500 feet).	HP	**Moderate Potential:** The County contains wetlands that are potentially suitable for the species. There are 15 recent and four historic CNDDB occurrences of the species within the County.
Dwarf resin birch	*Betula glandulosa*	Fed: State: CNPS:	- - 2B.2	A shrub native to California. Inhabits streams, meadow edges, bogs, lower montane coniferous forests, and subalpine coniferous forest. Flowers May-June (4,265-7545 feet).	HP	**Presumed Absent:** The County contains streams and riparian habitats that are potentially suitable for the species. However, there are no recent CNDDB occurrences of the species within the County. The only occurrence of the species was 126 years ago and the species has not been documented in the County since; therefore, it is presumed absent.
English sundew	*Drosera anglica*	Fed: State: CNPS:	- - 2B.3	A perennial herb native to California. Inhabits bogs and meadows. Flowers June-August (4,265-7,000 feet).	HP	**Low Potential:** The County contains meadows and riparian habitats that are potentially suitable for the species. There is one recent (2011) CNDDB occurrence of this species within the County.
Feather River stonecrop	*Sedum albomarginatum*	Fed: State: CNPS:	- - 1B.2	A perennial herb found in pine forest and chaparral communities in Butte Co and Plumas Co. Blooms between May and June (600-6,000 feet).	A	**Presumed Absent:** The maintenance that will be performed is focused on waterways and riparian habitats. The species' habitat is chaparral and pine forests and as such, the species is presumed absent from areas covered under the RMA. Furthermore, the one recent (2015) CNDDB occurrence of the species within the County is on a serpentine slope, not within CDFW jurisdictional habitat.
Fern-leaved monkeyflower	*Erythranthe filicifolia*	Fed: State: CNPS:	- - 1B.2	Native to the foothill slopes of the northern High Sierra. Flowers between April and August. Often found on granite slabs (1,000- 5,000 feet).	HP	**Moderate Potential:** The County contains foothill slopes that are potentially suitable for the species. There are 16 recent and two historic CNDDB occurrences of this species within the County with several of these occurrences located near a creek.
Ferris' milk-vetch	*Astragalus tener var. ferrisiae*	Fed: State: CNPS:	- - 1B.1	An annual herb inhabiting vernally mesic meadows and seeps and subalkaline flats within valley and foothill grassland communities. Known only from six extant occurrences. Flowers April-May (0-250 feet).	HP	**Low Potential:** The County contains meadows that are potentially suitable for the species. There are five recent and two historic CNDDB occurrences of this species within the County with several of these occurrences located near a creek.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Flagella-like atractylocarpus	*Campylopodiella stenocarpa*	Fed: State: CNPS:	- - 2B.2	A bryophytic moss native to California. Generally found in cismontane woodland habitat. No identified blooming period (330 - 1,640 feet).	HP	**Low Potential:** The County contains potentially suitable habitat for the species. There is one documented CNDDB occurrence within the County, within Upper Bidwell Park (2001). The species has a low potential to occur within maintenance areas outside of this known population.
Flat-leaved bladderwort	*Utricularia intermedia*	Fed: State: CNPS:	- - 2B.2	An annual herb native to California. Inhabits shallow water less than 1 meter, marshes, vernal pools, and lake margins. Flowers between July-September (3,935-8,860 feet).	HP	**Low Potential:** The County contains shallow water, vernal pools, and marshes that are potentially suitable for the species. The species is considered to have low potential to occur due the one historic (1989) CNDDB occurrences within the County.
Greene's tuctoria	*Tuctoria greenei*	Fed: State: CNPS:	E R 1B.1	An annual grass endemic to California, inhabiting vernal pools in open grassland on the eastern side of the Sacramento and San Joaquin Valleys. It is only found in these seasonally wet areas. Blooms from May-September (100-3,500 feet).	CH	**Moderate Potential:** The County contains vernal pools that are potentially suitable for the species. There are seven CNDDB occurrences of the species within the County. Furthermore, there is final critical habitat for the species within the County (USFWS 2006).
Hairy Orcutt grass	*Orcuttia pilosa*	Fed: State: CNPS:	E E 1B.1	An annual herb endemic to California, inhabiting vernal pools in rolling topography on alluvial fans and stream terraces in the Central Valley. Occurs along the eastern edge of the San Joaquin and Sacramento valleys from Tehama County south to Stanislaus County and through Merced and Madera counties. Flowers May-September (upwards of 650 feet).	CH	**Low Potential:** The County contains vernal pools that are potentially suitable for the species and is within the range of the species. While there are no CNDDB occurrences of the species within the County, there are dozens of occurrences in the neighboring Glenn and Tehama counties. One of such occurrences is located in the Vina Plains in Tehama County, less than 5 miles north of the County boundaries. Additionally, there is final critical habitat for the species within the County (USFWS 2006).
Hall's rupertia	*Rupertia hallii*	Fed: State: CNPS:	- - 1B.2	A perennial herb native to California, inhabits cismontane woodland and lower montane coniferous forest. Flowers between June-September (1,790-7,380 feet).	HP	**High Potential:** The County contains woodlands that are potentially suitable for the species. There are 14 recent CNDDB occurrences of the species within the County, with many of those in close proximity to creeks, such as the northern part of Butte Creek.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Heartscale	*Atriplex cordulata var. cordulata*	Fed: State: CNPS:	- - 1B.2	An annual herb inhabiting saline or alkaline soils of chenopod scrub, meadows and seeps, and sandy valley and foothill grassland communities. Often found on roadsides. Flowers June-July (0-1,840 feet).	HP	**Presumed Absent:** The County contains habitat that is potentially suitable for the species and the species has been documented within the Grey Lodge Wildlife Area multiple times, according to both CNDDB and Calflora (the most recent occurrence is from 2012). However, the Grey Lodge Wildlife Area marks the northernmost extent of the species' distribution, and County maintenance activities would not occur on this State-owned land. The species is presumed absent from County maintenance areas.
Henderson's bent grass	*Agrostis hendersonii*	Fed: State: CNPS:	- - 3.2	An annual herb inhabiting mesic soils within vernal pools and valley and foothill grassland habitats. Flowers April-June (230-1,000 feet).	HP	**Low Potential:** The County contains vernal pools that are potentially suitable for the species. There are two recent and two historic CNDDB occurrences of the species within the County.
Hoover's spurge	*Euphorbia hooveri*	Fed: State: CNPS:	T - 1B.2	An annual endemic to California, inhabiting vernal pools, valley grasslands, freshwater wetlands, and wetland-riparian communities. Blooms from July-October (80-820 feet).	HP	**Low Potential:** The County contains vernal pools and wetlands that are potentially suitable for the species. There are one recent and three historic CNDDB occurrences are within the County. Furthermore, there is final critical habitat for the species mapped within the County (USFWS 2006).
Hutchison's lewisia	*Lewisia kelloggii ssp. hutchisonii*	Fed: State: CNPS:	- - 3.2	A perennial herb endemic to California, inhabiting decomposed granite, slate, and volcanic rubble in conifer forests. Flowers July-August (5,900-7,000 feet).	A	**Presumed Absent:** There are no CNDDB occurrences of this species within the County. In addition, the maintenance that will be performed is focused on waterways and riparian habitats, neither of which are habitats that the species is found in.
Jepson's onion	*Allium jepsonii*	Fed: State: CNPS:	- - 1B.2	A perennial bulb inhabiting open, serpentine or volcanic slopes, and flats of chaparral, cismontane woodland, and lower montane coniferous forest communities. Flowers April-August (980-4,330 feet).	HP	**Moderate Potential:** The County contains woodlands that are potentially suitable for this species. There are 20 recent and two historic CNDDB occurrences of the species, with many of those located in close proximity to a creek or river.
Lesser saltscale	*Atriplex minuscula*	Fed: State: CNPS:	- - 1B.1	An annual herb inhabiting sandy, alkaline soils of chenopod scrub, valley and foothill grassland, and playas	HP	**Presumed Absent:** The County contains habitat that is potentially suitable for the species and the species has been

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				communities. Flowers May-October (0-660 feet).		documented within the Grey Lodge Wildlife Area multiple times, according to both CNDDB and Calflora (the most recent occurrence is from 1998). However, the Grey Lodge Wildlife Area marks the northernmost extent of the species' distribution, and County maintenance activities would not occur on this State-owned land. The species is presumed absent from County maintenance areas.
Lewis Rose's ragwort	*Packera eurycephala var. lewisrosei*	Fed: State: CNPS:	- - 1B.2	A minorly toxic perennial herb found in foothill woodland and chaparral communities of Butte Co and Plumas Co. Blooms between May and October (600-6,000 feet).	HP	**Moderate Potential:** The County contains woodlands that are potentially suitable for the species. There are 21 recent and five historic occurrences of the species within the County. Many of these occurrences are in close proximity to creeks.
Long-leaved starwort	*Stellaria longifolia*	Fed: State: CNPS:	- - 2B.2	A perennial rhizomatous herb inhabiting mesic soils and moist areas of bog and fen, meadow and seep, riparian woodland and upper montane coniferous forest communities. Flowers May-August (3,000-6,000 feet).	HP	**Moderate Potential:** The County contains riparian habitats that are potentially suitable for the species. There are three recent and two historic occurrences of the species within the County.
Long-stiped campion	*Silene occidentalis ssp. longistipitata*	Fed: State: CNPS:	- - 1B.2	A perennial herb native to California inhabiting chaparral communities and lower and upper montane coniferous forests. Flowers between June-August (3,280-6,560 feet).	HP	**Moderate Potential:** The County contains woodlands that are potentially suitable for the species. There are four recent and two historic occurrences of the species within the County, some within close proximity to creeks.
Mildred's clarkia	*Clarkia mildrediae ssp. mildrediae*	Fed: State: CNPS:	- - 1B.3	An annual herb limited to Butte Co and Plumas Co. Found in pine forest communities in the foothill regions of the High Sierra Nevada (600-6,100 feet).	HP	**High Potential:** The County contains woodland communities that are potentially suitable for the species. There are 37 recent and five historic CNDDB occurrences of this species within the County. Many of these occurrences are located in close proximity to creeks.
Mingan moonwort	*Botrychium minganense*	Fed: State: CNPS:	- - 2B.2	A rhizomatous fern inhabiting mesic soils of bogs and fens, lower montane coniferous forests, meadow and seeps edges and upper montane coniferous forest communities. Spores produced July-September (4,775-10,170 feet).	HP	**Moderate Potential:** The County contains woodland habitats that are potentially suitable for the species. There are 13 recent and one historic CNDDB occurrences of the species within the County. Some of these occurrences are in close proximity to creeks.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Minute pocket moss	*Fissidens pauperculus*	Fed: State: CNPS:	- - 1B.2	Is a moss native to California, inhabiting North Coast coniferous forest habitat that contains damp coastal soil. Is found in elevations ranging from 30-3,300 feet.	HP	**Low Potential:** The County contains habitat that is potentially suitable for this species. There are three recent (2002-2009) CNDDB occurrences of this species within the County.
Mosquin's clarkia	*Clarkia mosquinii*	Fed: State: CNPS:	- - 1B.1	An annual herb that is specific to foothill regions in northern California. Finds its home in disturbed foothill woodland communities (0-4,500 feet).	HP	**High Potential:** The County contains woodland communities that are potentially suitable for this species. There are 70 recent and three historic CNDDB occurrences of the species within the County. Many of these occurrences are located in close proximity to creeks.
Mud sedge	*Carex limosa*	Fed: State: CNPS:	- - 2B.2	A perennial rhizomatous herb native to California, inhabiting bogs, lower and upper montane coniferous forest, meadows and marshes. Flowers between June-August (3,935-8,860 feet).	HP	**Low Potential:** The County contains meadows and marshes that are potentially suitable for this species. There is one recent and one historic CNDDB occurrence of this species within the County.
Northern slender pondweed	*Stuckenia filiformis ssp. alpina*	Fed: State: CNPS:	- - 2B.2	A perennial herb rhizomatous herb inhabiting shallow, clear water of lakes, drainage channels and marshes and swamps. Flowers May-July (1,000-7,050 feet).	A	**Presumed Absent:** While the County contains lakes, drainage channels and marshes that are potentially suitable for the species, there are no recent CNDDB occurrences of the species within the County. There are no recent occurrences of the species in the surrounding counties.
Pappose tarplant	*Centromadia parryi ssp. parryi*	Fed: State: CNPS:	- - 1B.2	An annual herb inhabiting chaparral, coastal scrub, meadows, seeps, marshes, swamps (coastal salt), and valley foothill grasslands often with alkaline soils. Flowers May-November (0-1,375 feet).	HP	**Presumed Absent:** While the County contains lakes, drainage channels and marshes that are potentially suitable for the species, there are no recent CNDDB occurrences of the species within an open meadow habitat in the Grey Lodge Wildlife Area. Because the habitat of the only occurrence of the species within the County is not CDFW jurisdictional under this RMA, the species is presumed absent from areas covered under the RMA.
Pink creamsacs	*Castilleja rubicundula var. rubicundula*	Fed: State: CNPS:	- - 1B.2	An annual hemiparasitic herb inhabiting serpentinite soils of chaparral, cismontane woodland, meadows, seeps, valley grassland, and foothill grassland communities. Flowers April-June (65-3,000 feet).	A	**Low Potential:** The County contains habitat that is potentially suitable for the species. There are four CNDDB occurrences of the species within the County; however, all but one are considered extirpated. The single presumed extant CNDDB occurrence of the

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						species is from 1988 within the Grey Lodge Wildlife Area. The species has a low potential to occur in the County's maintenance areas outside of this known population.
Recurved larkspur	*Delphinium recurvatum*	Fed: State: CNPS:	- - 1B.2	A perennial herb inhabiting poorly drained, fine, alkaline soils in chenopod scrub, Atriplex scrub, cismontane woodland, and valley and foothill grassland communities. Flowers March-June (10-2,600 feet).	A	**Presumed Absent:** The County contains grassland communities that are potentially suitable for the species within the County. However, the most recent (1897) occurrence of the species within the County has since been extirpated.
Red Bluff dwarf rush	*Juncus leiospermus var. leiospermus*	Fed: State: CNPS:	- - 1B.1	An annual herb inhabiting vernally mesic soils of chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pool communities. Flowers April-June (100-4,100 feet).	HP	**Moderate Potential:** The County contains grasslands and vernal pools that are potentially suitable for the species. There are 16 recent and five historic CNDDB occurrences of the species within the County.
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: State: CNPS:	- - 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds, and ditches. Flowers May-October (0-2,130 feet).	HP	**Moderate Potential:** The County contains marshes, ponds, and ditches that are potentially suitable for the species. There are four recent and three historic CNDDB occurrences of the species within the County.
Scalloped moonwort	*Botrychium crenulatum*	Fed: State: CNPS:	- - 2B.2	A fern native to California, inhabiting wetlands, meadows, freshwater-marsh, bogs and fens, and yellow pine forest communities. Blooms June-September (4,900-11,900 feet.).	HP	**Moderate Potential:** The County contains marshes and wetlands that are potentially suitable for the species. There are five recent CNDDB occurrences of the species within the County.
Sierra arching sedge	*Carex cyrtostachya*	Fed: State: CNPS:	- - 1B.2	A perennial herb inhabiting mesic lower montane coniferous forest, meadows and seeps, marshes and swamps, and margins of riparian forest communities. Flowers May-August (2,000-4,460 feet).	HP	**Moderate Potential:** The County contains marshes and wetlands that are potentially suitable for the species. There are five recent CNDDB occurrences of the species within the County.
Sierra blue grass	*Poa sierrae*	Fed: State: CNPS:	- - 1B.3	A perennial grass inhabiting openings and shady moist slopes, often on mossy rocks, in canyons within lower montane coniferous forest communities. Flowers April-June (1,200-5,000 feet).	HP	**High Potential:** The County contains riparian habitats that are potentially suitable for the species. There are 14 recent CNDDB occurrences of the species within the County and many of the occurrences are located in close proximity to creeks and other bodies of water.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Siskiyou Mountains huckleberry	*Vaccinium coccineum*	Fed: State: CNPS:	- - 3.3	A shrub native to California and found in Oregon. Inhabits lower and upper montane coniferous forests. Flowers between June-August (3,595-7,005 feet).	HP	**Presumed Absent:** The County contains meadows that are potentially suitable for the species. However, there are no CNDDB or Calflora occurrences of the species within the County.
Slender Orcutt grass	*Orcuttia tenuis*	Fed: State: CNPS:	T E 1B.1	An annual herb inhabiting vernal pools, often within gravelly soils. Flowers May-October (115-5,775 feet).	HP	**Low Potential:** The County contains vernal pools that are potentially suitable for the species and there are three recent CNDDB occurrences of the species within the County.
Subtle orache	*Atriplex subtilis*	Fed: State: CNPS:	- - 1B.2	An annual herb inhabiting saline depressions of valley and foothill grassland communities. Flowers June-October (130-330 feet).	HP	**Presumed Absent:** The County contains habitat that is potentially suitable for the species within the County. The only occurrence of the species within the County is located within the Grey Lodge Wildlife Area. However, the Grey Lodge Wildlife Area marks the northernmost extent of the species' distribution, and County maintenance activities would not occur on this State-owned land. The species is presumed absent from County maintenance areas.
Tall alpine-aster	*Oreostemma elatum*	Fed: State: CNPS:	- - 1B.2	A perennial herb native to California, inhabiting bogs, meadows and seeps, and upper montane coniferous forests. Flowers between June-August (3,295-6,890 feet).	A	**Presumed Absent:** The County contains meadows that are potentially suitable for the species. However, there are no recent CNDDB occurrences of the species within the County. The closest occurrence is approximately 14 miles away from the County boundaries.
Upswept moonwort	*Botrychium ascendens*	Fed: State: CNPS:	- - 2B.3	A fern native to California, inhabiting mesic soils in wetland, meadow, lower montane coniferous forest, and yellow pine forest habitats. Flowers July-August (3,600-10,000 feet).	HP	**Moderate Potential:** The County contains wetlands and meadows that are potentially suitable for the species. There are six recent and one historic CNDDB occurrences of the species within the County.
Veiny monardella	*Monardella venosa*	Fed: State: CNPS:	- - 1B.1	An annual herb inhabiting heavy clay soils in cismontane woodlands, valley grasslands, and foothill grasslands. Flowers May-July (195-1,350 feet).	HP	**Moderate Potential:** The County contains heavy clay soils in cismontane woodlands, valley grasslands, and foothill grasslands that are potentially suitable for the species. Furthermore, there are 12 Calflora occurrences of the species within the County (1882-2007).

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Water bulrush	*Schoenoplectus subterminalis*	Fed: State: CNPS:	- - 2B.3	A perennial rhizomatous herb native to California, also found in other areas of North America and beyond. It is aquatic and inhabits bogs, marshes and swamps, and montane lake margins. Flowers between June-August (2,460-7,380 feet).	HP	**Low Potential:** The County contains marshes and lakes that are potentially suitable for the species. Furthermore, there are three Calflora occurrences of the species within the County (1989, 2004).
Water star-grass	*Heteranthera dubia*	Fed: State: CNPS:	- - 2B.2	A perennial herb native to California, inhabiting alkaline soils and still/slow-moving waters of marshes, swamps, and wetland-riparian habitats. Flowers July-August (100-4,900 feet).	A	**Presumed Absent:** The County contains riparian habitats that are potentially suitable for the species. However, there are no recent CNDDB occurrences of the species within the County and the closest recent occurrence to the County is in Modoc County.
Watershield	*Brasenia schreberi*	Fed: State: CNPS:	- - 2B.3	A perennial rhizomatous aquatic herb inhabiting ponds, slow streams, and freshwater marsh and swamp communities. Flowers June-September (100-7,200 feet).	A	**Presumed Absent:** The County contains riparian habitats that are potentially suitable for the species. However, there are no recent CNDDB occurrences of the species within the County and the closest recent occurrence to the County is approximately 20 miles away from the County boundaries.
Western goblin	*Botrychium montanum*	Fed: State: CNPS:	- - 2B.1	A perennial rhizomatous herb native to California, inhabiting mesic soils in meadows, seeps, and upper/lower montane coniferous forests. Flowers July-September (4,800-7,000 feet).	HP	**Moderate Potential:** The County contains meadows that are potentially suitable for the species. There are six recent and one historic CNDDB occurrence of the species within the County and several of the occurrences are in close proximity to creeks.
White-stemmed clarkia	*Clarkia gracilis ssp. albicaulis*	Fed: State: CNPS:	- - 1B.2	An annual herb endemic to California, inhabiting serpentine soils in chaparral and foothill woodland communities. Flowers May-July (800-3,600 feet).	HP	**High Potential:** The County contains woodland communities that are potentially suitable for the species. There are 17 recent and five historic CNDDB occurrences of the species within the County. Many of these occurrences are located in close proximity of water.
Wooly rose-mallow	*Hibiscus lasiocarpos var. occidentalis*	Fed: State: CNPS:	- - 1B.2	A perennial rhizomatous herb inhabiting freshwater wetlands, wet banks, and marsh communities. Often found in-between riprap on levees. Flowers June-September (0-400 feet).	HP	**Moderate Potential:** The County contains wetlands and marsh communities that are potentially suitable for the species. There are five recent and 19 historic CNDDB occurrences of the species within the County. There are dozens of occurrences of the species along the Sacramento River.

APPENDIX E. HAZARDOUS WASTE RECORDS SEARCH RESULTS

SITES IDENTIFIED WITH WASTE CONSTITUENTS ABOVE HAZARDOUS WASTE LEVELS OUTSIDE THE WASTE MANAGEMENT UNIT

COUNTY	CITY	REGION	SWAT F	WASTE DISCHARGER SYSTEM NO.	SOLID WASTE ID NO.	WASTE MANAGEMENT UNIT NAME	FACILITY NAME	AGENCY NAME
DEL NORTE	CRESCENT CITY	1	2	1A880520NSL-01		DEL NORTE COUNTY- PESTICIDE STORAGE	DEL NORTE PESTICIDE STORAGE AR	DEL NORTE, COUNTY OF
CONTRA COSTA	PITTSBURG	2	1	2 071059002-02	07-A1-0001	U.S. STEEL CORP.-PITTSBURG SITE LA	WDR-USS-POSCO	USS-POSCO
SOLANO	VALLEJO	2	1	2 482011003-01	48-AA-0008	US NAVY MARE ISLAND SANITARY LANDFILL	WDR-NAVAL SHIPYARD/CLASS I LAN	MARE ISLAND NAVAL SHIPYARD
CONTRA COSTA	RICHMOND	2	3	2 071007002-01		CHEVRON CHEMICAL COMPANY-OLD SITES	WDR-ORTHO DIV-RICHMOND PLANT	CHEVRON CHEMICAL COMPANY
MONTEREY	FORT ORD (Marina)	3	1	3 270301004-01	27-AA-0015	FORT ORD LANDFILL	SANITARY LANDFILL	U.S. ARMY, FORT ORD
SANTA BARBARA	LOMPOC	3	3	3 420305001-01	42-AA-0017	LOMPOC CITY LANDFILL	SOLID WASTE DISPOSAL SITE	LOMPOC CITY
LOS ANGELES	MONTEREY PARK	4	1	4B190332001-01	19-AM-0001	OPERATING INDUSTRIES LANDFILL	OPERATING INDUSTRIES, INC.	OPERATING INDUSTRIES, INC.
TULARE	WOODLAKE	5F	1	5D540300010-01	54-AA-0007	TULARE COUNTY-WOODLAKE LANDFILL	WOODLAKE SWDS	TULARE, COUNTY OF
FRESNO	FRESNO	5F	2	5D100300001-01		MCKINLEY AVE. YARD	T.H. AGRICULTURE AND NUTRITION	NORTH AMERICAN PHILLIPS
KINGS	CORCORAN	5F	2	5D160302001-01	16-AA-0011	KINGS COUNTY-CORCORAN LANDFILL	CORCORAN SWDS	KINGS COUNTY WASTE MGMT AUTH.
FRESNO	FRESNO	5F	3	5D100319001-01	10-AA-0013	ORANGE AVENUE DISPOSAL COMPANY	ORANGE AVENUE LANDFILL	ORANGE AVENUE DISP CO. INC
TULARE	EXETER	5F	3	5D540300003-01	54-AA-0002	TULARE COUNTY-EXETER DISPOSAL SITE	EXETER SWDS	TULARE, COUNTY OF
MERCED	ATWATER	5F	4	5C240115001-01		ATWATER CITY	BERT CRANE ROAD LANDFILL	ATWATER, CITY OF
FRESNO	FOWLER	5F	5	5D100325N01-01		FOWLER CITY	FOWLER CITY LANDFILL (OLD)	FOWLER, CITY OF
BUTTE	OROVILLE	5R	2	5A042005001-01		KOPPERS COMPANY-OROVILLE SITE	KOPPERS WOOD PRESERVING ISW	KOPPERS INDUSTRIES INC.
BUTTE	CHICO	5R	4	5A040302N01-01		CHICO CITY BURN DUMP	HUMBOLDT ROAD LANDFILL	CHICO, CITY OF
SACRAMENTO	SACRAMENTO	5S	1	5A340700003-01	34-AA-0008	US AIR FORCE-MCCLELLAN AFB LANDFILL	CLASS III SITE 8 (CLOSURE)	US AIR FORCE-MCCLELLAN AFB
SACRAMENTO	MATHER (Rancho Cordova)	5S	2	5A340700001-01		US AIR FORCE-MATHER FIELD LANDFILL	MATHER AFB ENVIRONMENTAL MGMT	US AIR FORCE – MATHER AFB
SACRAMENTO	SACRAMENTO	5S	3	5B342000N01-01		SACRAMENTO ARMY DEPOT	SACRAMENTO ARMY DEPOT	U.S. ARMY
SAN JOAQUIN	STOCKTON	5S	3	5 390002NUR-01	39-AA-0006	US NAVY COMMUNICATIONS LANDFILL	U.S.N. COMMUNICATION STA. LANDF	U.S. NAVY COMMUNICATIONS
SAN JOAQUIN	FRENCH CAMP	5S	3	5 390003NUR-01		US ARMY-SHARPE ARMY DEPOT	US ARMY-SHARPE ARMY DEPOT	US ARMY
SAN JOAQUIN	TRACY	5S	5	5 390006NUR-01		SITE 300 (OTHER 39 WMUS)	LAWRENCE LIVERMORE LAB	LAWRENCE LIVERMORE LABS
INYO	KEELER	6V	1	6B142000041-01	14-AA-0008	US TUNGSTEN OWENS LAKE LANDFILL	OWENS LAKE LANDFILL	UMETCO MINERALS CORPORATION
ORANGE	FULLERTON	8	1	8300002NUR-01		MCCOLL SITE	MCCOLL SLUDGE DISPOSAL SITE	TOXIC SUBSTANCES CONTROL DIVIS
RIVERSIDE	RIVERSIDE	8	1	8 330325001-01		STRINGFELLOW QUARRY ACID PITS	STATE OF CALIFORNIA-STRINGFELLOW	TOXIC PROGRAM MANAGEMENT SECT

APPENDIX F. LIST OF ABBREVIATED TERMS

Abbreviation	Full Meaning
AB	Assembly Bill
BCAG	Butte County Association of Governments
BCAQMD	Butte County Air Quality Management District
BMPs	Best Management Practices
BRCP	Butte Regional Conservation Plan
CAP	Climate Action Plan
CDFW	California Department of Fish and Wildlife
CDTSC	California Department of Toxic Substances Control
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Butte County
CRLF	California red-legged frog
dB	Decibel
dbh	Diameter at Breast Height
DPS	Distinct Population Segment
EIR	Environmental Impact Report
ESA	Environmentally Sensitive Area
ESU	Evolutionary Significant Unit
FMMP	Farmland Mapping and Monitoring Program
FP	Fully Protected
FYLF	Foothill yellow-legged frog
GHG	Greenhouse gas
HCP	Habitat Conservation Plan
HMMP	Habitat Mitigation and Monitoring Plan
LOS	Level of Service
NCCP	Natural Community Conservation Plan

NMFS	National Marine Fisheries Service
NOx	Nitrogen oxides
NSVAB	Northern Sacramento Valley Air Basin
OHWM	Ordinary High Water Mark
RMA	Routine Maintenance Agreement
ROG	Reactive organic gases
SB	Senate Bill
SSC	Species of Special Concern
SVAB	Sacramento Valley Air Basin
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VELB	Valley elderberry longhorn beetle
VES	Visual encounter survey
VMT	Vehicle miles travelled
VRF	Verification Request Form
WL	Watch List
XPI	Extended Phase 1