COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY

5961 South Mooney Boulevard
Visalia, CA 93277

Initial Study and Mitigated Negative Declaration

STREAM CHANNEL ROUTINE MAINTENANCE AGREEMENT

July 2026

Prepared by
County of Tulare Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division

INITIAL STUDY CHECKLIST

1. Project Title: Tulare County Stream Channel Routine Maintenance Agreement Project

2. Lead Agency: County of Tulare
Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

3. Contact Persons: Denise England (Deputy County Admin Officer) – 559-636-5005
Gary Mills, Chief Planner – 559-624-7199

4. Project Location: The Project area encompasses the County-maintained portions of the following creeks: Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek (**Figure 1 and Figure 2 in Attachment A**). In addition to the creek channels, the Project area encompasses a 100-foot buffer surrounding each creek reach to capture the associated riparian corridor. The Project area comprises approximately 3,502 acres.

5. Applicant: Tulare County, Resource Management Agency
5961 S. Mooney Boulevard
Visalia, California 93277-

6. Owner(s) N/A

7. General Plan Designation: N/A

8. Zoning: N/A; Tulare County Right-of-Way

9. Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.):

Tulare County (County) proposes to enter into a long-term 12-year Streambed Alteration Agreement with the California Department of Fish and Wildlife (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 throughout the County. 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 30 maintenance projects a year over the 12-year life of the RMA. Routine maintenance would primarily 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 standard construction equipment, including, but not limited to: water trucks, excavators, backhoes, graders 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 would include the following:

Removal, Replacement or Repair of Facilities

The County would remove, replace, or repair pipe culverts, outfalls, inlets, manholes, above-ground utilities. Removal or replacement of facilities may require the trimming or removal of vegetation, displacement of sediments and/or placement of materials within creeks and channels, manhole lining, flushing, vactoring, Closed Circuit Television inspections, or electric pole removal/replacement. Excavation from channels would be limited to the removal of accumulated sediment in order to maintain the designed capacity of floodways. 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 "routine" maintenance, a stand-alone §1600 Streambed Alteration Agreement may be necessary.

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 accumulated sediment to maintain the designed capacity of floodways, 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.

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, or have the potential to. The County proposes debris and obstruction removal in creeks and channels. 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 depending on management objectives and existing conditions.

Silt, Sand or Sediment Removal

Sediment management would be limited to the removal or displacement of accumulated silt, sand, gravel, or sediment under dry conditions solely to maintain the designed capacity of floodways. The County would remove material (under dry conditions) from lined and unlined channels where accumulation obstructs or redirects flows, reduces capacity, accelerates erosion, or damages facilities. Methods and locations would be submitted to CDFW for approval through VRFs. Re-vegetation may or may not occur depending on management objectives and site conditions.

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. The County anticipates vegetation control will mostly be completed with chainsaws, string trimmers, or other hand tools. Ride on top or push mowers will also be used to clear out herbaceous growth. Occasionally, a backhoe or small excavator may be necessary to clear out aquatic vegetation or to remove stumps.

The County would cut, trim, or remove the lower branches of large trees to facilitate site inspections, maintain channel

capacity, or reduce ladder fuels near developed areas. Tree removals will be limited to what is necessary to maintain flood capacity and public safety.

Much of what the County will be controlling are invasive species that cause problematic blockages in drainage infrastructure including but not limited to giant reed (*Arundo donax)*, yellow starthistle (*Centaurea solstitialis*), pampasgrass *(Cortaderia selloana*), Scotch broom (*Cytisus scoparius*), English ivy (*Hedera helix*), tree of heaven (*Alianthus altissima*), and Himalayan blackberry (*Rubus armeniacus*). The County would not remove special status plant populations without CDFW approval. Exact methods and locations of vegetation removal activities would be submitted to CDFW for final approval through VRFs.

Goat/Sheep Grazing

The County may contract for goat/sheep grazing services to aid in thatch management, fuel reduction and invasive species removal tasks. This would involve contracting a herd to flash graze specific locations for a short period of time. Herds are moved frequently to avoid overgrazing any particular location and they are kept in place using temporary electric fencing. Herds would be left in a paddock for a period of 1 to 5 days depending on vegetation density and the desired amount of vegetation removal and would then be moved to the next area. A portion of this grazed area would be within riparian areas and fall under the RMA.

Goats would not be permitted within the wetted portion of stream channels but would be permitted in adjacent riparian areas under CDFW jurisdiction as well as in dry channels. Goat grazing is particularly useful on steep slopes and other areas where human access is limited or dangerous. 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 to manage soil erosion in critical areas such as outfalls.

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 for any 1 VRF. 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. Addition of new revetment will likely require compensatory mitigation to offset the permanent loss of habitat. No new concrete lining would be installed.

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 from 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.

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 subsurface 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. XPI activities would be completed by qualified archaeologists.

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 are anticipated to include rock slope protection, 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. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs:

Table 1. Anticipated Permanent Impacts (Addition of Fill Projects)

Project Type	Project Size	Area (square feet)	Area (acres)	Volume (cubic yards)	Estimated Projects/Year	Total Permanent Impacts/Year (acres)	Total Permanent Impacts/12 Years (acres)
Outfall Fills	Small	16	0.0004	0.6	10	0.004	0.048
	Large	2,500	0.0574	185.2		0.574	6.888
Bridges/Culvert Fills	Small	100	0.0023	3.7	2	0.005	0.055
	Large	2,500	0.0574	185.2		0.115	1.378
Channel/Basin Fills	Small	40	0.0009	3	2	0.002	0.022
	Large	5,000	0.1148	370.4		0.230	2.755
Total		**10,156**	**0.2332**	**748.1**	**14**	**0.929**	**11.146**

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. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs:

Table 2. Anticipated Temporary Impacts (Removal of Fill Projects)

Project Type	Project Size	Area (square feet)	Area (acres)	Volume (cubic yards)	Estimated Projects/Year	Total Temporary Impacts/Year (acres)	Total Temporary Impacts/12 Years (acres)
Outfall Removal	Small	16	0.0004	0.59	10	0.004	0.048
	Large	6,250	0.1435	463		1.435	17.220
Bridges/Culvert Removal	Small	100	0.0023	3.7	2	0.005	0.055
	Large	6,250	0.1435	463		0.287	3.444
Channel/Basin Sediment Removal	Small	40	0.0009	1.5	10	0.009	0.108
	Large	6,250	0.1435	463		1.435	17.220
Total		**18,906**	**0.4341**	**1,394.79**	**22**	**3.175**	**38.095**

9. **Surrounding land uses and setting (Brief description):** Tulare County is approximately 3.1 million acres. The Project area is within the western portion of the County, which includes the San Joaquin valley floor. Elevation in the valley ranges from approximately 200 to 400 feet above mean sea level. The valley is highly developed, with much of its flat land converted to agricultural uses such as orchards, cropland, and feedlots. Some natural habitat areas still remain within the valley, including the Pixley National Wildlife Refuge. However, these natural areas are generally fragmented and discontinuous, having been divided by roads and extensive agricultural development (**Figure 3. Public Agency Jurisdictions within Tulare County** in **Attachment A**).

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 occurring within USACE jurisdiction, the County will coordinate with USACE, as needed, to obtain any required Section 404 permits.
    - Central Valley Regional Water Quality Board (if a routine maintenance project requires USACE approval, a Section 401 Clean Water Certification may also be required)
    - Tulare County Resource Management Agency

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 include, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc?** Pursuant to AB 52 and SB 18, a Sacred Land File request was submitted to the Native American Heritage Commission on February 4, 2025, and was returned with positive results. On August 21, 2025, tribal consultation notices were sent to eighteen (18) tribal contacts representing ten (10) Native American tribes. The County received responses from North Fork Mono Tribe on August 22, 2025 and Table Mountain Rancheria Tribe on September 19, 2025. Both tribes stated that the Project is not within their area. Additionally, the County received a response from the Dunlap Band Mono Indians Tribe on September 12, 2025 stating that the Project is not within their area and referred the Project to the Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, and the Wuksachi Tribe. No other responses were received within the 30-day response time. Mitigation measures have been included in the project to reduce potential impacts on tribal cultural resources in the event that any potential resources are unearthed during construction-related activities.

A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture / Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology / Soils	☐	Greenhouse Gas Emissions	☐	Hazards and 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

B. DETERMINATION

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 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.

Signature: _____ Date: _____
Gary Mills, Chief Planner

Signature: _____ Date: _____
Denise England, Deputy County Admin Officer

C. EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 point.) 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-2.3 Open Space Character; LU-7.9 Visual Access; SL-1.2 Working Landscapes; SL-1.3 Watercourses; SL-2.1 Designated Scenic Routes and Highways; SL-2.2 Gateway to the Sequoias; and ERM-1.7 Planting of Native Vegetation.

Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant. The RMA Project area contains the Valley Floor[1], a scenic landscape, which has the potential to provide scenic vistas. These landscapes occur near streams, creeks, and other waterways within Tulare County. However, the Project activities include maintenance and repair of infrastructure such as facilities, bridges, channels, and banks, and would not construct a structure that would block views of this landscape. The temporary visual disturbances associated with maintenance work, including an increased presence of vehicles and construction equipment, are unlikely to change the visual quality of the scenic vistas. Therefore, there would be a ***Less Than Significant Impact*** related to scenic vistas. No mitigation is required.

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

Less Than Significant. Currently, there is one officially designated scenic highway and two highways that are

[1]Tulare County. 2010. General Plan Background Report. Available at: https://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf. Accessed March 20, 2026.

eligible for designation within Tulare County[2]. Routine maintenance activities have the potential to occur in creeks adjacent to SR 190 and SR 198, which are both eligible state scenic highways. The Project would focus on maintaining and repairing existing infrastructure, such as facilities, bridges, channels, and banks; therefore, the Project would not damage scenic resources such as historic buildings. The implementation of routine channel maintenance activities may require 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 a ***Less Than Significant Impact*** related to scenic resources. No mitigation is required.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? In urbanized areas, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant. As described in response to questions a) and b), the proposed Project involves the maintenance and repair of infrastructure such as culverts, outfalls, and other facilities. Routine maintenance activities would occur throughout Tulare County, both in urbanized and non-urbanized areas. Routine maintenance activities 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 the existing visual character would be temporary. Additionally, the Project would not conflict with any zoning or other regulations governing scenic quality. Therefore, the Project would have a ***Less Than Significant Impact*** on existing visual character and quality of public views. No mitigation is required.

d) Would the project 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 expected to be implemented during routine maintenance activities, there would be no new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Furthermore, the Project would not introduce any new permanent light sources within the Project area. Thus, there would be ***No Impact*** on day or nighttime views in the area. No mitigation is required.

[2]Caltrans. 2026. State Scenic Highway System Map. Available at: https://experience.arcgis.com/experience/47e2009986264718a5a13a2c81382774. Accessed March 20, 2026.

II. AGRICULTURAL AND FOREST RESOURCES

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 agriculture use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource 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?	☐	☐	☐	☒

Background Information

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the Rural Valley Lands Plan point evaluation system prepared by the County of Tulare 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.

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: AG-1.14 *Right to Farm Noticing*; AG-1.17 *Agricultural Water Resources*; and LU-2.3 *Open Space Character*.

Impact Analysis

a) Would the project 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. Tulare County contains regions of Prime Farmland, Farmland of Statewide Importance, and

Unique Farmland as determined by the Farmland Mapping and Monitoring Program[3]. However, the proposed Project is limited to maintenance activities occurring adjacent to existing roads and bridges, within established streams and channels within County ROW. These activities 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) Would the project conflict with existing zoning for agriculture 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 only be implemented within established streams and drainages in the County ROW and not within agricultural land. ***No Impact*** on lands under Williamson Act Contracts would occur. No mitigation is required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

No Impact. The County contains areas zoned for timber production and public land with forests[4]. However, routine maintenance activities would not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned Timberland Production***. No Impact*** on existing zoning is expected. No mitigation is required.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Routine maintenance activities would not result in the loss or conversion of forest land to non-forest use. All work would be confined to the valley floor along stream channels, and no activities would occur on National Forest Service lands or other forested areas. This would result in ***No Impact***, and no mitigation is required.

e) Would the project 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 new changes to 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.

[3]California Department of Conservation. 2026. Tulare County - Important Farmland Data Availability. Available at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx. Accessed March 20, 2026.

[4]Tulare County. 2010. General Plan Background Report. Available at: https://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf. Accessed March 20, 2026.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☒	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: AQ-1.1: Cooperation with Other Agencies; AQ-1.5: California Environmental Quality Act (CEQA) Compliance; AQ-4.1: Air Pollution Control Technology; and AQ-4.2 Dust Suppression Measures.

Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. According to San Joaquin Valley Air Pollution Control District's (SJVAPCD's) *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI)[5], projects with emissions below the thresholds of significance for criteria pollutants have been determined to not conflict or obstruct implementation of the SJVAPCD's air quality plan. The emissions derived from routine maintenance activities are expected to be minor and are not expected to exceed SJVAPCD's emission thresholds for criteria pollutants. Further, maintenance activities would be conducted over 12 years 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 would be short in duration, these maintenance activities would not conflict with or obstruct the implementation of an applicable air quality plan. Therefore, the Project would result in a ***Less Than Significant Impact***. No mitigation is required.

b) Would the project 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. According to the SJVAPCD's GAMAQI, a project is considered to contribute considerably to a significant cumulative impact if it increases ROG, NOX, SOX, CO, PM10, or PM2.5 by more than its respective significance threshold. The emissions derived from routine maintenance activities are

[5] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Available at: https://www.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed on April 7, 2026.

expected to be minor and are not expected to exceed SJVAPCD's emission thresholds for criteria pollutants. Further, maintenance activities would be conducted over 12 years 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 would be short in duration, these maintenance activities would have less than a cumulatively significant net increase in criteria pollutants. Therefore, the Project would result in a ***Less Than Significant Impact***. No mitigation is required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. A sensitive receptor is a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollution[6]. The individual routine maintenance activities proposed as part of the Project are expected to be short-term and occur periodically over 12 years. With the implementation of air quality best management practices (BMPs), maintenance activities would have a ***Less Than Significant Impact*** related to exposing sensitive receptors to substantial pollutant concentrations. No mitigation is required.

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

Less Than Significant Impact. The proposed routine maintenance activities would involve minor projects along drainage channels and creeks and would likely require standard construction equipment. Any odors or toxic air contaminants generated by the proposed Project would be limited to emissions from construction equipment and would occur at low concentrations and for short durations, resulting in negligible impacts that are not expected to violate SJVAPCD odor regulations. Project activities would not include industrial or intensive agriculture uses. Therefore, the impact is considered to be ***Less Than Significant***. No mitigation is required.

[6] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Available at: https://www.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed on April 7, 2026.

IV. BIOLOGICAL RESOURCES

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 Game or 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, and regulations or by the California Department of Fish and Game or 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, Tulare County Routine Maintenance Agreement Biological Resources Technical Report (BRTR; included as **Attachment B**), and the resources cited in this analysis. The BRTR was completed for a larger project area (i.e., routine maintenance activities that may occur throughout the entire County); therefore, some of the information included in the BRTR is not relevant for this Project.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-1.1 *Protection of Rare and Endangered Species*; ERM-1.2 *(Development in Environmentally Sensitive Areas;* ERM-1.4 *Protect Riparian Areas*; ERM-1.6 *Management of Wetlands*; ERM-1.7 *Planting of Native Vegetation;* ERM-1.8 *Open Space Buffers;* ERM-1.9: *Coordination of Management on Adjacent Lands;* ERM-1.15 *Minimize Lighting Impacts;* ERM-1.16 *Cooperation with Wildlife Agencies;* ERM-5.8 *Watercourse Development;* ERM-1.16 *Cooperation with Wildlife Agencies;* and ERM-5.8 *Watercourse Development.*

Vegetation Communities

A broad-scale method of classifying landscape types is by ecoregion, which are areas where ecosystems are generally similar. The U.S. Environmental Protection Agency has created a hierarchical system for classifying ecoregions throughout the country[7], which is described in more detail in **Attachment B**. The Project area overlaps with one Level III ecoregion: Central California Valley (CCV).

The CCV Ecoregion is characterized by flat, intensively farmed plains with long, hot, dry summers and mild winters. This region was once characterized by extensive prairies, oak savannas, desert grasslands, riparian woodlands, freshwater marshes, and vernal pools; however, over half of the region has been converted to cropland, about three-fourths of which is irrigated.

Hydrology

The Project area is situated within the Tulare Basin watershed, which also overlaps portions of Fresno County, Kings County, and Kern County. The Tulare Basin watershed includes the valley floor alluvial fans of the Kings, Kaweah, Tule, and Kern Rivers that originate from the Sierra Nevada mountains to the east. These four major rivers, as well as a number of lesser streams including Deer Creek and White River, all flow west across the Central Valley and terminate in Tulare Basins' terminal lakes instead of flowing out to the Pacific Ocean.

Historically, water from the Sierra Nevada would flow into the valley to create broad deltaic fans composed of dozens of channels and sloughs that shifted periodically during flood events. Today, the region receives water from five sources: precipitation, runoff from rivers and streams, groundwater, State Water Project delivery, and Central Valley Project delivery. Public agencies, water banks, and private landowners closely manage water in the County. Dams occur on all four major rivers. During years of high rainfall, flood control concerns influence water movement; however, in drier years, surface water movement throughout the basin is primarily by gravity flow in natural stream channels and constructed canals or ditches. Pumping occurs in many locations to distribute irrigation water or drain water[8].

Special-Status Species

Special-status plant and wildlife species are those that meet one or more of the following criteria: (1) have been listed or proposed for listing as threatened or endangered under the FESA; (2) have been listed or are candidates for listing under the CESA, or are protected under other state regulations; (3) have been designated as a Species of Special Concern (SSC) or Fully Protected (FP) by CDFW; and/or (4) have been assigned a status of 1, 2, or 3 by the California Native Plant Society (CNPS).

Online databases from USFWS[9] and CDFW[10] were queried to produce a list of special-status species that have the potential to occur within the County. The CNPS Rare Plant Inventory database was queried for a list of special-status plants with the potential to occur in the types of habitat that may occur within the RMA Project areas[11]. The full

[7] Griffith, G.E., Omernik, J.M., Smith, D.W., Cook, T.D., Tallyn, E., Moseley, K., and Johnson, C.B. 2016. *Ecoregions of California* (poster): U.S. Geological Survey Open-File Report 2016–1021, with map, scale 1:1,100,000. Available at: http://dx.doi.org/10.3133/ofr20161021. Accessed on April 6, 2026.

[8] Tulare Basin Watershed Partnership. 2026. Hydrology of the Tulare Basin. Available at: https://www.tularebasinwatershedpartnership.org/hydrology. Accessed on February 13, 2026.

[9] U.S. Fish and Wildlife Service (USFWS). 2026. Information for Planning and Consultation Tool. Available at: https://ipac.ecosphere.fws.gov/. Accessed on February 13, 2026.

[10] California Department of Fish and Wildlife (CDFW). 2026. California Natural Diversity Database, updated February 1, 2026. Available at: https://apps.wildlife.ca.gov/cnddb-subscriptions/downloads. Accessed on February 13, 2026.

[11] California Native Plant Society (CNPS). 2026. Rare Plant Inventory. Available at: https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants. Accessed on February 13, 2026.

findings of these database searches are presented in the BRTR (**Attachment B**). The County does not support marine or anadromous species; therefore, there are no species under the jurisdiction of the NMFS that have the potential to occur in the Project area or otherwise be affected by the Project.

Based on the results of these database searches, 36 special-status species were determined to have the potential to occur within the creeks, waterways, and associated riparian corridors and floodplains that will be affected by maintenance activities under the RMA. **Table 3. Special-Status Species Potentially Occurring in the Project Area** lists the regulatory status and habitat requirements for each of these 36 special-status species with potential to occur in the Project area.

Table 3. Special-Status Species Potentially Occurring in the Project Area

Species Name	Status	Habitat Requirements
Amphibians (2)		
California tiger salamander – Central California distinct population segment (DPS) *Ambystoma californiense*	• Federal: T • State: T • CDFW: WL	Vernal pools, seasonal ponds, grassland, and oak savannah plant communities. Requires terrestrial habitat and temporary ponds for breeding.
Western spadefoot *Spea hammondii*	• Federal: PT • State: - • CDFW: SSC	Open areas with sandy or gravelly soils near vernal/temporary pools formed by heavy winter rains for reproduction.
Birds (6)		
Burrowing owl *Athene cunicularia*	• Federal: - • State: CE • CDFW: SSC	Arid, open areas with sparse vegetation cover, such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats.
Loggerhead shrike *Lanius ludovicianus*	• Federal: - • State: - • CDFW: SSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.
Swainson's hawk *Buteo swainsoni*	• Federal: - • State: T • CDFW: -	Grasslands, riparian areas, and agricultural or ranch lands with groves or lines of trees.
Tricolored blackbird *Agelaius tricolor*	• Federal: - • State: T • CDFW: -	Freshwater marsh, swamp, and wetland communities. Requires desne cattails, tules, willow, or other tall/dense vegetation.
Western snowy plover *Anarhynchus nivosus nivosus*	• Federal: - • State: E • CDFW: -	Sandy or gravelly beaches along the coast, estuarine salt ponds, and evaporation ponds in agricultural areas.
Willow flycatcher *Empidonax traillii*	• Federal: - • State: E • CDFW: -	Dense riparian systems or willow thickets in proximity to wetlands, ponds, or backwaters.
Invertebrates (2)		
Crotch's bumble bee *Bombus crotchii*	• Federal: - • State: CE • CDFW: -	Grassland, shrubland, and chaparral habitats with diverse floral resources and loose soils, mulch, rock piles, or other nesting habitat.

Species Name	Status	Habitat Requirements
Monarch butterfly *Danaus plexippus*	• Federal: PT • State: - • CDFW: -	Fields, meadows, weedy areas, marshes, and roadsides with diverse floral resources and proximity to their obligate host plants in the *Asclepias* genus.
Mammals (6)		
American badger *Taxidea taxus*	• Federal: - • State: - • CDFW: SSC	Forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows with friable soils.
Pallid bat *Antrozous pallidus*	• Federal: - • State: - • CDFW: SSC	Deserts, grasslands, shrublands, woodlands, and forests. Roosts in caves, crevices, hollow trees, bridges, and buildings.
San Joaquin kit fox *Vulpes macrotis mutica*	• Federal: E • State: T • CDFW: -	Open, level (less than 5 percent slopes) alkali scrub/shrub and arid grassland communities with scattered shrubby vegetation.
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	• Federal: E • State: E • CDFW: -	Chenopod scrub, saltbrush scrub and sink scrub in the Tulare lake basin. Requires friable soils away from seasonal flooding.
Townsend's big-eared bat *Corynorhinus townsendii*	• Federal: - • State: - • CDFW: SSC	Caves, mines tunnels, buildings or man-made structures for day and night roosts.
Western mastiff bat *Eumops perotis californicus*	• Federal: - • State: - • CDFW: SSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral.
Reptiles (5)		
Bakersfield legless lizard *Anniella grinnelli*	• Federal: - • State: - • CDFW: SSC	Moist, loose soils with plant cover. Habitat includes pine-oak woodlands, desert scrubs, sandy washes, and streams.
Blunt-nosed leopard lizard *Gambelia sila*	• Federal: E • State: E • CDFW: FP	Alkali flats, arroyos, canyons, and washes with shrubby vegetation in the San Joaquin Valley. Shrubs should be large to provide thermoregulation/shelter but should be dispersed sparsely throughout the landscape.
Coast horned lizard *Phrynosoma blainvillii*	• Federal: - • State: - • CDFW: SSC	Valley-foothill hardwood, conifer forest, riparian, pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes or floodplains.
Northern California legless lizard *Annellia pulchra*	• Federal: - • State: - • CDFW: SSC	Moist, loose soils with plant cover. Habitat includes pine-oak woodlands, desert scrubs, sandy washes, and streams.
Northwestern pond turtle *Emys marmorata*	• Federal: PT • State: - • CDFW: SSC	Ponds, lakes, rivers, streams, irrigation ditches with aquatic vegetation, and other similar aquatic habitat in proximity to upland habitat including grasslands, woodland, and forests.

Species Name	Status	Habitat Requirements
Plants (15)		
Alkali mariposa lily *Calochortus striatus*	• Federal: - • State: - • CNPS: 1B.2	Alkaline and mesic soils within meadows and seeps in chaparral. Flowers April-June (230-5,200 feet).
Alkali-sink goldfields Lasthenia chrysantha	• Federal: - • State: - • CNPS: 1B.1	Alkali sinks, valley grassland, vernal pools, saline flats, and wetland-riparian areas. Blooms February to April (<0-655 feet)
California satintail *Imperata brevifolia*	• Federal: - • State: - • CNPS: 2B.1	Mesic, often alkali, soils within springs, meadows, streambanks, floodplain, chaparral, coastal scrub, and riparian scrub communities. Blooms September-May (0-4,000 feet).
Earlimart orache *Atriplex cordulata var. erecticaulis*	• Federal: - • State: - • CNPS: 1B.2	Saline or alkaline soils of valley and foothill grassland communities. Flowers August-September (0-330 feet).
Hoover's spurge *Euphorbia hooveri*	• Federal: T • State: - • CNPS: 1B.2	Vernal pools, valley grasslands, freshwater wetlands, and wetland-riparian communities. Blooms from July-October (80-820 feet).
Lesser saltscale *Atriplex minuscula*	• Federal: - • State: - • CNPS: 1B.1	Sandy, alkaline soils of chenopod scrub, valley and foothill grassland, and playas communities. Flowers May-October (0-660 feet).
Recurved larkspur *Delphinium recurvatum*	• Federal: - • State: - • CNPS: 1B.2	Poorly drained, fine, alkaline soils in scrub, cismontane woodland, and grassland communities. Flowers March-June (10-2,600 feet).
San Joaquin adobe sunburst *Pseudobahia personii*	• Federal: T • State: E • CNPS: 1B.1	Adobe and clay microhabitat of cismontane woodland and valley and foothill grassland communities. Flowers February-April (300-3,000 feet).
San Joaquin Valley Orcutt grass *Orcuttia inaequalis*	• Federal: T • State: E • CNPS: 1B.1	Vernal pools of valley grassland, freshwater wetlands, and wetland-riparian communities. Flowers April-September (30-2,600 feet).
Sanford's arrowhead *Sagittaria sanfordii*	• Federal: - • State: - • CNPS: 1B.2	Freshwater marshes, swamps, ponds, and ditches. Flowers May to October (0–2,130 feet).
Spiny-sepaled button-celery *Eryngium pusaterii*	• Federal: - • State: - • CNPS: 1B.2	Roadside ditches, depressions, vernal pools, swales, and valley and foothill grassland communities. Flowers April-June (260-3,200 feet).
Striped adobe-lily *Fritillaria striata*	• Federal: - • State: T • CNPS: 1B.1	Clay soils of cismontane woodland and valley and foothill grassland communities. Flowers February-April (440-4,775 feet).
Subtle orache *Atriplex subtilis*	• Federal: - • State: - • CNPS: 1B.2	Saline depressions of valley and foothill grassland communities. Flowers June-October (130-330 feet).

Species Name	Status	Habitat Requirements
Watershield *Brasenia schreberi*	• Federal: - • State: - • CNPS: 2B.3	Ponds, slow streams, and freshwater marsh and swamp communities. Flowers June-September (100-7,200 feet)
Winter's sunflower *Helianthus winteri*	• Federal: - • State: - • CNPS: 1B.2	Steep, south-facing slopes in granitic, often rocky soils. Often found along roadsides. Blooms year-round (410-1,510 feet).
Key: CCV = Central California Valley; CE = Candidate Endangered; E = Endangered; FP = Fully Protected; PT = Proposed Threatened; R = Rare; S = Sensitive; SSC = Species of Special Concern; T = Threatened, WL = Watch list		

Impact Analysis

a) Would the project 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 Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. This biological resource analysis assumes the implementation of applicable biological resource avoidance, minimization, and mitigation measures. As described in the Special-Status Species section, 36 special-status species were found to have the potential to occur within the routine maintenance areas; 2 amphibian species, 6 bird species, 2 invertebrate species, 6 mammal species, 5 reptile species, and 15 plant species. The potential Project impacts on each of these taxon groups are summarized in the following subsections. Additional information can be found in the BRTR (**Attachment B**).

Amphibians

Two (2) special-status amphibian species have the potential to occur within or near the anticipated routine maintenance areas. These species are the Central California DPS of California tiger salamander (CTS) and western spadefoot (WS).

Over the 12-year RMA, routine maintenance activities in the Project area are expected to temporarily impact a total of approximately 38.10 acres of potential amphibian habitat. Potential temporary impacts may result from activities including debris and sediment removal, vegetation control, erosion control work on stream channels, and other work within or near channels or ponds has the potential to impact these amphibian species. Temporary impacts may include the alteration or loss of habitat and various perils associated with the presence of construction equipment, such as entrapment and vehicular collisions. Amphibians occurring transiently within the routine maintenance areas during construction may also become trapped in open trenches or equipment and could be trampled by worker foot traffic. However, pre-construction desktop reviews will be conducted before each maintenance project begins (mitigation measure **BIO-4**) to determine which additional special-status species surveys, if any, are required. Species-specific measures (mitigation measures **CTS-1** and **AMPH-1**) will also be implemented; these measures generally require potentially suitable habitat areas to be delineated with Environmentally Sensitive Area (ESA) fencing or flagging and for workers to let wildlife leave the site of their own volition. Temporarily impacted areas will be restored as described in measure **BIO-10**.

Over the life of the RMA, it is estimated that approximately 11.15 acres of riparian and stream habitat could be permanently impacted. Permanently impacted areas will be mitigated as described in measure **BIO-11**.

Additionally, as described in measure **BIO-3**, no RMA work will occur within or adjacent to vernal pools. Because CTS and WS may both use vernal pools for breeding, the implementation of measure **BIO-3** will

reduce the potential for direct impacts on these species resulting from routine maintenance activities.

Birds

Six (6) special-status bird species have been identified as having the potential to occur within or near the anticipated routine maintenance areas. These species are the burrowing owl, loggerhead shrike, Swainson's hawk, tricolored blackbird, western snowy plover, and willow flycatcher.

Over the 12-year RMA, it is assumed that up to 38.10 acres of stream/riparian habitat could be temporarily impacted and 11.15 acres could be permanently impacted by routine maintenance. Temporary impacts may include auditory and visual disturbances that cause individuals to change their behaviors and abandon their nests. Ground nests could be crushed by construction workers and equipment moving through the routine maintenance areas. Permanent impacts could include the loss of nesting habitat.

Should these species occur in the routine maintenance areas during construction, they could experience temporary and permanent impacts. Migratory birds and birds of prey, which are protected under the MBTA and Section 3503 of the CFG code, have the potential to nest in trees within the routine maintenance areas during the nesting season (February 15 through August 31). Routine maintenance projects may affect suitable nesting habitat for general migratory birds, raptors, and other 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, raptors, and other special-status bird species. 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.

To avoid and minimize the potential for migratory birds, raptors, and other special-status bird species to be impacted by routine maintenance activities, work will be conducted outside the nesting bird season to the extent possible. However, if work must occur during the bird nesting season, a pre-construction nesting bird survey will be conducted no more than 7 days prior to the start of construction, and no-work buffers will be established around any active nests to avoid impacts (mitigation measure **BIRD-1**). To reduce the potential for active swallow or phoebe nests to be present within the routine maintenance areas during construction, inactive swallow nests may be knocked down outside of the nesting season, and incomplete nests may be knocked down during nesting bird season, consistent with the requirements in measure **BIRD-2**. Furthermore, areas temporarily impacted by construction would be restored after work is complete (measure **BIO-10**), and permanently impacted areas would be mitigated as described in measure **BIO-11**.

Riparian habitats impacted by routine maintenance activities may not provide suitable habitat for all of these species; therefore, habitat suitability will be assessed on a project-by-project basis (per measure **BIO-4**). If suitable habitat for special-status bird species is found to occur within the routine maintenance area for a specific project, the associated species-specific measures **BUOW-1**, **SWHA-1**, **TCB-1**, and/or **WF-1** would be implemented to avoid and minimize impacts on special-status bird species.

Invertebrates

Two (2) special-status invertebrate species – Crotch's bumble bee and monarch butterfly – have the potential to occur within or near the anticipated routine maintenance areas. Both species require a diversity of floral resources for foraging. Crotch's bumble bee requires suitable upland habitat for nesting, such as loose soils and leaf piles, and the monarch butterfly requires plants in the genus *Asclepias* to support its larval life stage.

Over the 12-year RMA, it is assumed that up to 38.10 acres of riparian/stream habitat could be temporarily impacted and 11.15 acres could be permanently impacted by routine maintenance activities. However, because these species both occur mostly in upland grassland habitats, they are less likely to occur within riparian areas and therefore less likely to be impacted by the routine maintenance activities. Both species

may occur within the routine maintenance areas transiently; thus, construction work could disturb these species' foraging behaviors and could permanently reduce the availability of foraging habitat. Additionally, if plants from the genus *Asclepias* are present within routine maintenance impact areas, there is potential for monarch larvae to occupy the area and be injured or killed by routine maintenance activities.

Habitat suitability for these two species will be evaluated on a project-by-project basis before construction (mitigation measure **BIO-4**). Additionally, any plants of the *Asclepias* genus will be protected in place, if feasible, or surveyed for the presence of monarch life stages prior to removal (mitigation measure **INVERT-1**). If suitable habitat for either species is identified, any temporarily impacted areas will be reseeded following construction with a seed mix that will provide diverse, native floral resources to create suitable foraging habitat for these insects (mitigation measure **BIO-10**).

Mammals

Six (6) special-status mammal species have the potential to occur within or near the expected routine maintenance areas. These species are American badger, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, and western mastiff bat. The American badger, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, and western mastiff bat.

Over the 12-year RMA, routine maintenance activities could temporarily impact 38.10 acres of riparian/stream habitat within the CCV ecoregion. Temporary impacts on mammal species may include the short-term loss or degradation of habitat; direct impacts such as vehicle strikes, trampling, and/or entombment within ground burrows; and indirect impacts such as auditory and visual disturbances resulting in behavioral changes. Over the 12-year RMA, routine maintenance activities could permanently impact 11.15 acres of riparian/stream habitat. Permanent impacts would mainly result from vegetation removal and soil compaction. Because most routine maintenance activities would occur within or directly adjacent to areas that are already disturbed/degraded, special-status mammal species are unlikely to spend extended periods of time (i.e., burrowing/denning) within the routine maintenance areas; however, individuals may occur transiently in the work areas. Because most special-status mammal species with potential to occur are nocturnal, it is unlikely that their activities would be hindered by the construction. Furthermore, because the extent of impacts is so limited, special-status mammals are expected to readily relocate to nearby habitats of equal or higher quality if they are disturbed temporarily by construction activities.

Temporarily impacted habitat would be restored to pre-construction conditions, as described in mitigation measure **BIO-10**. Permanently impacted habitat would be mitigated as described in mitigation measure **BIO-11**. To further reduce the potential for impacts on special-status mammals, species-specific measures would be implemented as needed. These mitigation measures include **BAT-1** (Townsend's Big-eared Bat and Other Bat Species), **TKR-1** (Tipton Kangaroo Rat), **SJKF-1** (San Joaquin Kit Fox), and **AMBA-1** (American Badger). The required species-specific surveys will be determined on a project-by-project basis, based on the location of the proposed work and the results of the pre-activity desktop review (measure **BIO-4**).

Reptiles

Five (5) special-status reptile species have the potential to occur within or near the expected routine maintenance areas. These species are Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, northern California legless lizard, and northwestern pond turtle. The Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, northern California legless lizard, and northwestern pond turtle.

Over the 12-year RMA, routine maintenance activities could temporarily impact 38.10 acres of riparian habitat within the CCV ecoregion. Temporary impacts on reptile species may include the short-term loss or degradation of habitat; direct impacts such as vehicle strikes, trampling, and/or entombment within ground burrows; and indirect impacts such as auditory and visual disturbances resulting in behavioral changes. Over the 12-year RMA, routine maintenance activities could permanently impact 11.15 acres of riparian habitat within the CCV ecoregion. Permanent impacts would mainly result from vegetation removal and soil

compaction. Because most routine maintenance activities would occur within or directly adjacent to areas that are already disturbed/degraded, special-status reptile species are unlikely to spend extended periods of time (i.e., burrowing/nesting) within the routine maintenance areas; however, individuals may occur transiently in the work areas. Furthermore, because the extent of impacts is so limited, special-status reptiles are expected to readily relocate to nearby habitats of equal or higher quality if they are disturbed temporarily by construction activities.

To further reduce the potential for impacts on special-status reptiles, species-specific avoidance and minimization measures would be implemented as needed. These measures include **BNLL-1** (Blunt-nosed Leopard Lizard), and **REPT-1** (Coast Horned Lizard, Northwestern Pond Turtle, Northern California Legless Lizard, Bakersfield Legless Lizard). The required species-specific surveys will be determined on a project-by-project basis, based on the location of the proposed work and the results of the pre-activity desktop review (measure **BIO-4**).

Plants

Fifteen (15) special-status plant species have the potential to occur within or near the anticipated routine maintenance areas. These plants are: Alkali mariposa lily, Alkali-sink goldfields, California satintail, Earlimart orache, Hoover's spurge, lesser saltscale, recurved larkspur, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, Sanford's arrowhead, spiny-sepaled button-celery, striped adobe-lily, subtle orache, watershield, and Winter's sunflower.

Should plants occur within the routine maintenance work areas, they could be directly impacted by work activities such as vegetation trimming or removal, fill placement, or other ground-disturbing work. The use of construction equipment within suitable habitat areas may result in individuals being crushed or smothered by dust created by vehicle use or earth-moving activities.

To avoid impacts on these species, pre-construction rare plant surveys will be required within routine maintenance areas that 1) contain suitable habitat for special-status plants and 2) have not been surveyed in the last 5 years. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which special-status plant surveys are required (mitigation measure **BIO-5**).

Therefore, impacts on special-status species are considered to be ***Less Than Significant Impact With Mitigation Incorporated***. The proposed mitigation measures are included at the end of Section IV. BIOLOGICAL RESOURCES.

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

Less Than Significant Impact With Mitigation Incorporated. Riparian and wetland habitats occur within the Project area. The routine maintenance activities proposed under the Project may require temporary and/or permanent impact to wetlands, riparian vegetation, and/or stream channels. Limited impacts may also occur on upland habitats, such as grassland and woodland habitats, if they are directly adjacent to channels and riparian corridors.

For this RMA, temporary and permanent impacts are identified only where they result in a measurable change to the ecological condition relative to the established baseline, whether in the short term or long-term. For this evaluation, "baseline conditions" are defined as the ecological state of the site at the time this report is approved. Under this definition, routine maintenance activities conducted on a regular cycle (e.g., annually or biennially) that are intended to preserve existing ecological conditions are not considered temporary or permanent impacts. For example, periodic vegetation trimming or thinning that maintains current habitat structure and composition is excluded from the following impact quantification, as vegetation is expected to regenerate within approximately one year, and habitat function remains

consistent with baseline conditions. Following this definition of baseline conditions, impacts defined as temporary or permanent are discussed below.

Approximately 14 routine maintenance projects involving the addition of fill and 22 projects involving the removal of fill are anticipated annually under the RMA, based on the representative project types and sizes summarized in **Table 1** and **Table 2**. Individual projects are expected to have relatively small footprints, with small projects affecting less than 0.001 acre and larger project effects ranging from approximately 0.057 to 0.144 acre depending on activity type.

Based on these assumptions, annual permanent impacts associated with fill placement (e.g., outfalls, bridge/culvert fills, and channel/basin fills) are estimated at approximately 0.929 acre, with a corresponding total fill volume of about 748 cubic yards. Annual temporary impacts associated with fill removal activities (e.g., outfall removal, culvert removal, and sediment removal) are estimated at approximately 3.175 acres, with a total fill removal volume of about 1,395 cubic yards. Over the 12-year duration of the RMA, this equates to approximately 11.15 acres of permanent impacts and 38.10 acres of temporary impacts to aquatic and adjacent riparian habitats, assuming a consistent rate of activity.

These expected impacts would occur within a small fraction of the existing riparian and stream habitat within the County. Furthermore, permanent impacts would be mitigated as determined in coordination with CDFW in a Habitat Mitigation and Monitoring Plan (HMMP), as described in mitigation measure **BIO-11**. Therefore, impacts on riparian habitat and other sensitive natural communities within the County would be ***Less Than Significant with Mitigation Incorporated.*** The proposed mitigation measures are included at the end of Section IV. BIOLOGICAL RESOURCES.

c) Would the project 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, the removal of sediment would be limited to only the extent that would improve the habitat quality and function of the features by returning flows to a more natural state. The 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. Impacts to federally protected wetlands are considered ***Less Than Significant With Mitigation Incorporated***. The proposed mitigation measures are included at the end of Section IV. BIOLOGICAL RESOURCES.

d) Would the project 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 With Mitigation Incorporated. The County provides habitat for a variety of wildlife, such as birds and mammals. The Project, comprising a series of routine maintenance projects 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 occur only when stream channels are naturally dry, and would restore full functionality of all potential migratory corridors following construction work. Mitigation measure **FISH-1** will be implemented to fully avoid impacts to migrating fish. Migratory birds would be protected by the implementation of Mitigation Measures **BIRD-1** and **BIRD-2**. Maintenance activities would typically occur during daylight hours, allowing terrestrial wildlife—which generally migrates at night—to pass through areas temporarily subject to maintenance without significant constraint. Impacts are therefore considered ***Less Than Significant With Mitigation Incorporated*****.** The

proposed mitigation measures are included at the end of Section IV. BIOLOGICAL RESOURCES.

e) Would the project 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 the General Plan. If the removal of street trees is required, the County shall conduct tree removal in accordance with Section 8.32.070 (Protection of Street Trees) of the Tulare Code of Ordinances. ***No Impact*** to local policies or ordinances is anticipated. No mitigation is required.

f) Would the project 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. There is no adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) that currently applies to County activities. In the event that a local, regional, or state HCP/NCCP is approved in the future and applicable to RMA activities, the County would ensure compliance with all relevant provisions, including avoidance and minimization measures, Project design requirements, and BMPs. Therefore, ***No Impact*** on any adopted conservation plan would occur. No mitigation is required.

Mitigation Measures

The following mitigation measures would be implemented for routine maintenance activities occurring under the Project:

BIO-1: Environmental Training. The County shall provide an annual training from a qualified individual to all County employees, contractors, and visitors who will be present during Project activities regarding the contents of the RMA, the resources at stake, and the legal consequences of non-compliance. Should a specific maintenance project be implemented by non-County employees, the Project personnel shall receive the same training prior to starting work on the project. The environmental training may be waived on a case-by-case basis for projects with no potential to impact special-status species or other biological resources.

BIO-2: Work Hours. All work activities shall be confined to daylight hours. "Daylight hours" refers to the daytime period between sunrise and sunset.

BIO-3: No Work in Vernal Pools. No work shall occur within 50 feet of vernal pools. Earthwork including grading and recontouring shall not be conducted within 250 feet of vernal pools.

BIO-4: Pre-Activity Desktop Review. Prior to the implementation of routine maintenance projects, a qualified biologist will conduct a desktop review of aerial and street-level imagery, species occurrence and range data, and/or other sources to identify whether the specific project site contains suitable habitat for the following special-status wildlife species: California tiger salamander, western spadefoot, burrowing owl, loggerhead shrike, Swainson's hawk, tricolored blackbird, western snowy plover, willow flycatcher, Crotch's bumble bee, monarch butterfly, American badger, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, western mastiff bat, Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, and Northern California legless lizard.

BIO-5: Special-Status Plant Surveys. Prior to the implementation of routine maintenance projects within special-status plant habitat and in areas that have not be surveyed in the past 5 years, pre-construction special-status plant surveys will be required. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which special-status plant surveys are required. If there is suitable habitat for special-status plants present ("suitable habitat" for special-status 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

site-specific conditions and may include: Alkali mariposa lily, Alkali-sink goldfields, California satintail, Earlimart orache, Hoover's spurge, lesser saltscale, recurved larkspur, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, Sanford's arrowhead, spiny-sepaled button-celery, striped adobe-lily, subtle orache, watershield, and Winter's sunflower.

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

BIO-6: Wildlife Encounters. 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.

BIO-7: Cover Trenches and Pipes Overnight. Any steep-walled holes or deep trenches shall be covered overnight to reduce the potential for wildlife to become trapped. Steep-walled holes and deep trenches shall be checked each morning before starting work for trapped wildlife. If trapped wildlife is discovered, a qualified biologist shall be contacted to relocate the individuals or coordinate with CDFW if a special-status species is discovered. Pipes stored at the Project area overnight shall be capped to keep wildlife out.

BIO-8: Erosion Control Materials. 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.

BIO-9: Invasive Species Control. 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.

BIO-10: Vegetation Disturbance and Revegetation. 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.

BIO-11: Mitigate for Permanent Impacts. 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, purchasing suitable mitigation credits from a CDFW-approved mitigation bank, or using another CDFW-approved mitigation approach. Specific requirements for implementing and monitoring mitigation will be determined in consultation with CDFW during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA.

Amphibians

CTS-1: California Tiger Salamander. The VRF submitted for each maintenance activity shall document whether the Project site is within the range of the species and provides suitable upland or breeding habitat for the species (i.e., the results of the pre-activity desktop review). If suitable habitat occurs at the Project site, a qualified biologist shall survey the Project site and flag any potentially suitable rodent burrows within the Project area and a 50-foot survey buffer and include a map of all the flagged rodent burrows in the VRF. Project activities shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Buffers may be reduced on a case-by-case basis, as determined by the qualified biologist and in coordination with CDFW.

Maintenance activity locations within the range and providing suitable habitat for the California tiger salamander shall only be completed during the species' general inactive season, from June through October.

AMPH-1: Western Spadefoot. If water is present within work areas during maintenance activities, and potentially suitable habitat for western spadefoot is present, a qualified biologist must conduct a clearance sweep of the Project work areas within 3 days prior to initial ground disturbance. The pre-construction clearance survey will be completed by a CDFW-approved biologist. Any individuals of these species discovered at the Project work areas immediately prior to or during Project activities shall be allowed to move out of the work area of their own volition.

Birds

BIRD-1: Surveys for Nesting Avians and Raptors. To protect nesting birds, no Project maintenance activity shall be completed from February 15 through August 31 unless the following surveys are completed by a qualified biologist within 7 days prior to initiating the Project activity:

Raptors

Survey for nesting activity of raptors within a 300-foot radius of the Project site. Surveys shall be conducted at appropriate nesting times and concentrate on mature trees. If any active nests are observed, a no-work buffer of 300 feet shall be designated around the active nest until the young have fledged and are no longer reliant on the nest tree or parental care. The size of the no-work buffer may be adjusted if deemed appropriate by a qualified biologist.

Other Avian Species

Survey for nesting activity within a 100-foot radius of the Project boundaries. If any active nests are observed, a no-work buffer will be designated around the active nest until the young have fledged and are no longer reliant on the nest tree or parental care. The size of this buffer shall be determined by a qualified biologist based on the species of the bird(s) nesting, the specific site conditions, and the type of work being conducted.

Projects that are determined to have the potential to impact the following special-status species, as determined during the pre-construction desktop review described in measure BIO-4, must also implement the relevant species-specific measures in Section 4.2.2: burrowing owl, California spotted owl, southwestern willow flycatcher, willow flycatcher, Swainson's hawk, and tricolored blackbird.

BIRD-2: Mud Nest Removal. 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 other avian species 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 (i.e., between September 1 and February 14). 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.

During the nesting season (February 15 through August 31), 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.

BUOW-1: Burrowing Owl. The VRF submitted for each maintenance activity shall identify whether habitat for burrowing owl is present on or within 500 feet of the work area (i.e., the results of the pre-activity desktop survey). If habitat is present, a qualified wildlife biologist shall survey for burrowing owl within the Project site and a 500-foot radius no more than 7 days before the Project commences. Surveys shall be conducted at appropriate times to maximize detection. The VRF submitted for each maintenance project shall identify

whether the Project site is within the range of the species. If so, the survey results shall be included in the VRF. If any active burrowing owl burrows are observed, these burrows shall be designated an Environmentally Sensitive Area (ESA), protected, and monitored by a qualified biologist during project-related activities. Monitoring reports shall be submitted to CDFW. A minimum 500-foot avoidance buffer shall be established and maintained around each owl burrow during the nesting season (February 1 through August 31). If active burrowing owl burrows are observed outside of the nesting season, a minimum 150-foot no-disturbance buffer shall be established around each burrow. The avoidance buffers may be reduced if warranted based on site-specific conditions, the type of maintenance activity, or other factors.

SWHA-1: Swainson's Hawk. The VRF submitted for each maintenance activity shall describe the habitat and identify whether the Project location includes or is within 0.5 mile of nesting habitat for this species (i.e., the results of the pre-activity desktop review). If a site is within 0.5 mile of nesting habitat, CDFW shall only approve the VRF if the maintenance activity will be completed entirely outside of nesting season (nesting season is March 1 through August 31) or if the County conducts surveys following the Swainson's Hawk Technical Advisory Committee's protocols and concludes that Swainson's hawks are absent from the Project area. Alternatively, the County may document in the VRF their rationale to waive the protocol-level surveys based on the type or duration of the proposed activities and site-specific conditions. If CDFW concurs with the County's rationale, work may occur during nesting season without negative protocol-level survey results if a qualified biologist conducts a clearance survey no more than 3 days before the activity commences and confirms that no active Swainson's hawk nests are present within 0.5 mile of the Project area.

TCB-1: Tricolored Blackbird. The VRF submitted for each maintenance activity shall identify whether habitat for this species is present within 500 feet of the work area (i.e., the results of the pre-activity desktop review). If habitat is present, CDFW shall only approve the VRF if the maintenance activity will be completed entirely outside of the nesting season (March through August). Alternatively, a qualified biologist who is experienced in surveying for tricolored blackbirds shall survey all areas of suitable breeding habitat within the work area and a 500-foot radius of the site. Survey results shall be included in the VRF. If a nesting colony is found, no activity shall occur within a 500-foot buffer of the colony until a qualified biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site. The no-work buffer may be reduced as determined by a qualified biologist and approved by CDFW based on the type and duration of the proposed activities and the site-specific conditions.

WF-1: Willow Flycatcher. For activities occurring in areas with the potential to support the willow flycatcher, the VRF shall describe whether the Project includes or is within 500 feet of habitat for these species (i.e., the results of the pre-activity desktop review). If suitable habitat occurs, the Project shall be completed entirely outside of the species' nesting season (May through August).

Alternatively, a qualified biologist shall survey all areas of suitable breeding habitat for the species within 500 feet of the Project work area according to the appropriate species-specific survey protocol, as listed below:

Willow Flycatcher
Surveys shall be conducted according to *A Willow Flycatcher Survey Protocol for California,* published in 2003 by Helen L. Bombay et al. (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84019&inline).
The County shall include the survey results with the VRF. CDFW shall approve the VRF if survey results were negative and CDFW concurs with the survey results.

Alternatively, the County may document in the VRF their rationale to waive the protocol-level surveys based on the type or duration of the proposed activities and site-specific conditions. If CDFW concurs with the County's rationale, work may occur during nesting season without negative protocol-level survey results if

a qualified biologist conducts a clearance survey no more than 3 days before the activity commences and confirms that no active southwestern willow flycatcher or willow flycatcher nests are present within 500 feet of the Project area.

Fish

FISH-1: Maintenance activities occurring within the bed, bank, or channel of waterways within the Project area shall only be conducted when the channel is naturally dry. 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. Emergency maintenance activities, which are defined as immediate emergency work necessary to protect life or property or to restore public facilities necessary to maintain service, are exceptions to the provisions of this measure.

Invertebrates

INVERT-1: Monarch Butterfly – Pre-Construction Survey for *Asclepias* Plants. If construction takes place during the Monarch migration season in the Sierras (June – September), native milkweeds (any plant in the genus *Asclepias*) should be protected in place with a 20-foot no-disturbance buffer. If protection in place is not possible, the plant(s) shall be surveyed by a qualified biologist for the presence of monarch butterfly larval life stages. If monarch larvae are discovered, the plant may not be removed or disturbed until the monarch(s) are no longer using the plant.

Mammals

BAT-1: Townsend's Big-Eared Bat and Other Bat Species. Bats shall not be disturbed without specific notice to and consultation with CDFW. Pre-activity surveys shall be conducted at maintenance sites with potential bat habitat including bridges with expansion joints, box girders, or other suitable day roosting habitat. If bats are present during pre-activity surveys, survey methods that will result in species identification shall be employed, and results shall be submitted to CDFW in a survey report that includes the survey methodology and, if present, the species, colony size, roost location, and characteristics. The VRF submitted for each maintenance activity shall indicate whether roosting habitat for Townsend's big-eared bat is present within 100 feet of the work area. If other bat species are present and Townsend's big-eared bat is determined to be absent, and Project activity could impact roosting bats, the County shall submit a Bat Exclusion Plan to CDFW for review and approval with the VRF. If initial surveys had a negative result, the County shall conduct a follow-up bat pre-construction survey within 7 days prior to the maintenance project start date to determine whether bats have moved into or adjacent to the Project area. If bats are subsequently detected, the County shall contact CDFW and the process defined above shall follow, beginning with the identification of the species.

TKR-1: Tipton Kangaroo Rat. The VRF submitted for each maintenance project shall describe the habitat and identify whether the Project location includes or is within 50 feet of habitat for this species (i.e., the results of the pre-activity desktop review). If so, a qualified biologist shall flag all potentially suitable rodent burrows within 50 feet of the Project work areas and include a map of all flagged rodent burrows with the VRF. Project activities shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Alternately, if avoidance of all burrows is not possible, then protocol-level trapping surveys shall be conducted by a qualified biologist, and the results submitted to CDFW with the VRF. CDFW shall approve the VRF if survey results are negative and CDFW concurs with survey results.

SJKF-1: San Joaquin Kit Fox. The VRF submitted for each maintenance project shall identify whether the Project site is within the range of the species and supports suitable habitat for this species (i.e., the results of the pre-activity desktop review). If so, a qualified biologist shall survey of the Project site and a 250-foot buffer to identify potential dens and other signs of the species. Survey results shall be included in the VRF, and during Project activity, Permittee shall follow all requirements in the United States Fish and WildlifeService (USFWS) "USFWS Standardized Recommendations for the Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance" (http://www.fws.gov/sacramento/es/Survey~Protocols-Guidelines/Documents/kitfox_standard_rec_2O11.pdf). A qualified biologist shall be available on-site during all Project-related activities that could impact the species. If kit fox are found on or adjacent to a Project site, all activity shall cease until a qualified biologist confirms that the individual has left of its own volition.

If San Joaquin kit fox dens are found, they shall be avoided by appropriate distances (potential or atypical den = 50 feet; known den = 100 feet; pupping den = 250 feet). During reconnaissance level surveys, the den shall be treated as a known den unless sign associated with natal/pupping activity is observed. No disturbance to known San Joaquin kit fox dens shall occur and no work. shall occur within the above buffers, unless reduced buffers are agreed upon by the County and CDFW given site conditions and the type/duration of work proposed.

AMBA-1: American Badger. Any American badger detected within the Project work area during Project activities shall be allowed to move out of the work area of its own volition. If an American badger is denning on or immediately adjacent to a Project work area, Permittee shall consult with CDFW to determine whether the animal(s) may be evicted from the den. Eviction of badgers will not be approved by CDFW unless it is confirmed that no dependent young are present.

Reptiles

BNLL-1: Blunt-nosed Leopard Lizard. The VRF submitted for each maintenance project shall describe the habitat and identify whether the Project location includes or is within 50 feet of habitat for this species. If so, a qualified biologist shall flag all rodent burrows within the Project work area and a 50-foot radius, and Permittee shall include a map of all flagged burrows with the VRF. Project activity shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Alternatively, if avoidance of burrows is not feasible, protocol level surveys to detect species presence shall be conducted by qualified wildlife biologists. CDFW shall approve the VRF if survey results are negative and CDFW concurs with the survey results.

REPT-1: Coast Horned Lizard, Northwestern Pond Turtle, Northern California Legless Lizard, Bakersfield Legless Lizard. Each maintenance project work area providing habitat for the species shall be searched for these lizards by a qualified biologist immediately prior to starting work. Individuals of this species present in the work area shall be allowed to leave the work area of their own volition or shall be moved out of harm's way by a qualified biologist to a suitable area at least 100 feet upstream or downstream and outside the influence of the Project area. Should the northwestern pond turtle become federally listed, it shall not be moved without prior coordination with the USFWS.

Any loose substrate in which lizards could bury themselves shall be gently raked with a hand tool (e.g., a garden rake) to a depth of 2 inches to locate any lizards that could be under the surface immediately prior to starting the Project activity.

V. CULTURAL RESOURCES

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 formal cemeteries?	☐	☒	☐	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan 2030 Update (General Plan), General Plan 2030 Update Background Report (Background Report), Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (General Plan RDEIR), the Cultural Resources Technical Report that was developed for this Project, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-6.1 *Evaluation of Cultural and Archaeological Resources;* ERM-6.3: *Alteration of Sites with Identified Cultural Resources*; ERM-6.4: *Mitigation;* and ERM-6.7 *Cooperation of Property Owners*.

Description of the Project Area Limits

As the Project consists of maintenance activities to and within existing stream/canal corridors, the Project Area Limits (PAL) would consist of the physical boundaries of these water corridors, as identified on **Figure 2** in **Attachment A**. The PAL includes a 200-foot wide corridor centered on the County-maintained portions of the following creeks (100 feet from centerline to encompass the associated riparian corridor): Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek.

Sensitivity Modeling

The Project Area Limits (PAL) is centered on waterways within Tulare County which have long attracted human settlement in both pre-contact and historic time periods. Waterways often consist of a myriad of tributaries feeding into major rivers, creating areas exploited for their vast and diverse food resources, fresh drinking water, agricultural potential, travel, and transportation/movement of goods. As waterways provided many resources and opportunities, archaeological sites and historic resources are often found in and near them. Cultural resource site types found throughout the PAL vicinity include the following:

- Pre-contact-era habitation sites
- Pre-contact-era stone tool production, including both flaked and ground tools;
- Pre-contact-era and Historic-era food/resource gathering areas
- Pre-contact-era and Historic-era burials and cemeteries
- Historic-era trash scatters
- Historic-era structural ruins
- Historic-era water conveyance and control features (canals, man-made or altered natural stream channels, weirs, check dams, culverts, levees, etc.)
- Historic-era agricultural-related cultural resources (irrigation, remnants of abandoned crop rows, etc.)

- Historic-era farming/ranching-related cultural resources (corrals, equipment, fencing, etc.)
- Historic-era transportation infrastructure (bridges, culverts, railroads)

As this Project consists of a routine maintenance program implemented on creeks located throughout Tulare County, a cultural sensitivity model was developed to determine which areas of the PAL had a high sensitivity for cultural resources and would require cultural resources survey and resource assessment prior to implementation of any routine maintenance activities to determine if a historical resource, as defined under CEQA, is present and would be significantly affected. Cultural resource sensitivity designation prepared for this Project is based on the data collected at the Southern San Joaquin Valley Information Center (SSJVIC) in February 2025 and the types of routine maintenance activities proposed. Native American consultation was sought, but no Native American Tribes requested to consult on this Project.

First, the proposed activities were separated into those which constitute non-ground-disturbing, or "Above Ground", activities and those which constitute ground-disturbing, or "Below Ground", activities:

Above Ground Maintenance Activities consist of the following:

- Vegetation Trimming/Mowing
- Goat Grazing
- Placing fill dirt
    - Does not include more than 3-inches of ground surface excavation prior to placement of fill dirt
- Bridge Washing and Graffiti Removal

Below Ground Maintenance Activities consist of the following:

- Removal, Replacement, or Repair of Facilities
- Channel Alignment Maintenance
- Debris or Obstruction Removal Via Mechanical Equipment
- Silt, Sand, or Sediment Removal
- Vegetation Control in Channels or on Banks
    - Involving more than 3-inches of ground surface excavation
- Minor Erosion Control Work
- Repair of Previous Erosion Control Work
- Water Diversions
    - Includes when materials will be "Keyed" into channel or embankments
- Geotechnical Sampling
- Cultural Resource – Extended Phase I Investigation

Above Ground Maintenance Activities would not result in the alteration of the ground surface (beyond 3 inches) and would not involve subsurface ground disturbance. These types of activities would not diminish the characteristics that make cultural resources eligible for the California Register of Historical Resources (CRHR), assuming such a resource was present. Below Ground Maintenance Activities are those which would result in the alteration of the ground surface and subsurface. These activities do have the potential to alter the characteristics which make a cultural resource eligible for the CRHR, assuming such a resource was present.

Additionally, several waterways within the APE have been purposely modified for irrigation and have reached or may reach 50 years in age during the lifespan of this RMA. The County is assuming that these resources are eligible for listing on the CRHR for the purposes of this Project only. The proposed maintenance activities would not alter the characteristics that would make these resources significant, which primarily consists of their alignment and function as water conveyance features. The proposed maintenance activities would only restore the existing waterways to their original form, function, and use. For this reason, this resource type is discussed collectively as a historical resource for this Project only (future projects will be required to assess significance and eligibility for listing on the CRHR).

Furthermore, pipe culverts which may be over 50 years in age and present throughout the PAL represent a commonly installed drainage control feature type that continues to be utilized in modern day throughout California and the United States of America. The ubiquitous nature of pipe culverts means that these features do not have high artistic value, do not represent the work of an important creative individual, and are not associated with important individuals or events. Therefore, pipe culverts present within the PAL are not considered eligible for the CRHR and are not considered historical resources, as defined under CEQA. For this reason, pipe culverts are not discussed further in this document.

After assessing the types of proposed maintenance activities, the results of the map research and SSJVIC records were utilized to generate a cultural resource sensitivity model of the PAL. As part of this model, two maintenance activity categories have been designated for the PAL which detail whether cultural resource survey is needed prior to implementation of routine maintenance activities:

Category A —Cultural Resource Survey Not Required

Areas which have been surveyed post-1990 (when current archaeological identification standards were established) and which do not have any recorded cultural resources, have been determined as having low to very low cultural sensitivity, and are classified as Category A. Additionally, sections of waterways that have been artificially altered from their natural course through landform modification and re-channelization, as identified through comparison of current and historic aerial imagery/topographic maps, have also been categorized as Category A. Because proposed routine maintenance activities would occur within the already disturbed construction footprint of these altered waterways, the likelihood of encountering cultural resources during these activities is significantly reduced. For routine maintenance areas classified as Category A, both Above Ground and Below Ground Maintenance Activities are permitted without a cultural resources survey prior to implementation. Prior to implementing any activity, the County will review the Project Area Limits–Cultural Sensitivity/Requirements documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information.

Category B—Cultural Surveyed Required for Below Ground Activities

Routine maintenance areas which either have not been previously surveyed or were surveyed prior to 1990 (when current archaeological identification standards were established) are classified as Category B. In Category B designated areas, cultural resources survey and eligibility assessment must occur prior to Below Ground Maintenance. The cultural resources survey and eligibility assessment must be conducted or overseen by an archaeologist who meets the Secretary of the Interior's Standards In Archaeology. If cultural resources are identified and determined to be significant and therefore eligible for listing on the CRHR, including significant pre-contact cultural resources which are determined to be Tribal Cultural Resources, these resources must be protected in place and no Project activities can occur which may impact them.

No cultural resource identification efforts are required for above ground activities in Category B. Prior to implementing any activity, the County will review the Project Area Limits–Cultural Sensitivity/Requirements documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information.

Native American Consultation

The County sent notification letters attached via email and by certified mail on August 21, 2025 to the Native American Tribes that were included on the contact list provided by the Native American Heritage Commission (NAHC). No Native American Tribes requested to consult on the Project. See below for a summary of outreach.

- *Big Sandy Rancheria of Western Mono Indians*
    - No response.
- *Dunlap Band of Mono Indians*

    - Tribal Liaison Charley responded via voicemail on September 12, 2025 that the Project area was not within the Dunlap Band of Mono Indian's area and that the County should contact the Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, and the Wuksachi Tribe.
- *Cold Springs Rancheria of Mono Indians of California*
    - No response.
- *Kitanemuk & Yowlumne Tejon Indians*
    - No response.
- *North Fork Mono Tribe*
    - Chairman Goode responded via email on August 22, 2025 that the Project area was not within the North Fork Mono Tribe's area and that the County should contact the Tule River Indian Tribe. Chairman Goode also stated that if the Tule River Indian Tribe did not respond and a Tribal monitor was required for the Project that the North Fork Mono Tribe could provide a monitor.
- *Santa Rosa Rancheria Tachi Yokut Tribe*
    - No response.
- *Table Mountain Rancheria*
    - Director Pennell responded via letter stating that the Project was beyond Table Mountain Rancheria's interest.
- *Traditional Choinumni Tribe*
    - No response.
- *Tule River Indian Tribe*
    - No response.
- *Wuksachi Indian Tribe/Eshom Valley Band*
    - No response.

Impact Analysis

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

Less than Significant Impact with Mitigation Incorporated. As several waterways have been purposely modified and either have reached or may reach 50 years in age during the lifespan of this RMA, for the purposes of this Project only (future projects would need to assess significance) the County is assuming these resources are eligible for the CRHR and are therefore considered historical resources, as defined under CEQA. The proposed maintenance activities would only restore the existing waterways to their original form, function, and use. Therefore, the proposed Project does not have the potential to alter the historic character of the waterways, which primarily consists of their alignment and purpose of water conveyance.

Further, some routine maintenance activities have the potential to harm historical resources, assuming such resources are present, if the appropriate treatment measures are not followed. Activities that take place above or at ground surface, as detailed in the Above Ground Maintenance Activities defined in the preceding section, do not have the potential to harm these resources; however, activities that require below ground surface (excavation or earth movement) disturbance, as detailed in the Below Ground Maintenance Activities defined above, do have the ability to harm historical resources.

As previously noted, this Project consists of a routine maintenance program implemented over a 12–17-year period within the County. Due to the duration of the Project and as activities and locations will be defined on an as-needed basis, a category system has been created to detail whether a cultural resource survey is needed prior to implementation of routine maintenance work. The County will review the Project Area Limits–Cultural Sensitivity/Requirements for more information on the categories and locations within the Project to determine which category the proposed maintenance activities fall within. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information. Implementation of mitigation measures **CR-1** through **CR-5** would

reduce potential impacts to historical resources (cultural resources which have been determined eligible for the CRHR) to a less than significant level. Therefore, impacts to historical resources are considered ***Less Than Significant with Mitigation Incorporated***.

b) Would the project 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 no archaeological resources were identified within the PAL, the Project will span a 12–17-year period, and it is possible that there are archaeological resources that are currently obscured by dense vegetation and leaf litter. Some routine maintenance activities have the potential to harm archaeological resources, assuming such resources are present, if the appropriate treatment measures are not followed. Activities that take place above or at ground surface, as detailed in the Above Ground Maintenance Activities defined above, do not have the potential to harm these resources; however, activities that require below ground surface (excavation or earth movement) disturbance, as detailed in the Below Ground Maintenance Activities defined above, do have the ability to harm archaeological resources.

As previously noted, this Project consists of a routine maintenance program implemented over a 12–17-year period within the County. Due to the duration of the Project and as activities and locations will be defined on an as needed basis, a category system has been created to detail whether a cultural resource survey is needed prior to implementation of routine maintenance work. The County will review **the** Project Area Limits–Cultural Sensitivity/Requirements as documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project to determine which category the proposed maintenance activities fall within. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information. Implementation of mitigation measures **CR-1** through **CR-5** would reduce potential impacts to archaeological resources to a less than significant level. Therefore, impacts to archaeological resources are considered ***Less Than Significant with Mitigation Incorporated***.

c) Would the project 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, and data from the SSJVIC, no known burial sites or cemeteries exist within the PAL. 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 Section 5097.98 are to be followed as applicable. Implementation of measures **CR-5** would reduce this potential impact to a less than significant level. Therefore, impacts to human remains are considered ***Less Than Significant with Mitigation Incorporated***.

Mitigation Measures

CR-1: A cultural resources awareness training program shall be developed by the County and a qualified archaeologist. The training program will include relevant information regarding cultural resources (including pre-contact and historic-era), applicable state regulations, and avoidance and minimization measures. The program shall also underscore the requirement for confidentiality and respectful treatment of all inadvertently discovered cultural resources. Cultural resource awareness training shall be provided to all maintenance personnel and other County staff involved in routine maintenance annually as a component of the environmental awareness training program.

CR-2: The RMA PAL is divided into two categories—Category A and Category B:

- Category A includes channels that have been artificially created or modified, or which have been surveyed and determined not to have archaeological resources, Tribal Cultural Resources, and/or non-archaeological historic resources (historic-period structures/facilities).
    - All RMA activities can proceed in Category A locations without first conducting a cultural resource survey.
- Category B includes those areas that may contain natural landforms.
    - RMA activities which include Below-Ground Maintenance Activities (as defined by the environmental document) must be surveyed prior to implementing any work by an archaeologist meeting or supervised by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology.
    - If no archaeological resources, Tribal Cultural Resources, and/or non-archaeological historic resources (historic-period structures/facilities) are present within the maintenance construction footprint, the RMA activity can proceed.
    - If archaeological resources, Tribal Cultural Resources, and/or non-archaeological historic resources (historic-period structures/facilities) are present within the maintenance construction footprint, CR-3 shall be implemented.
    - RMA activities which include only Above-Ground Maintenance Activities (as defined by the environmental document) can proceed without first conducting a cultural resource survey.

CR-3: If previously unidentified archaeological resources, Tribal Cultural Resources, and/or non-archaeological historic resources (historic-period structures/facilities) are identified during the preconstruction survey or during construction, all ground disturbing activities shall be immediately suspended in that area and within 100 feet of the discovery. A qualified archaeologist meeting or supervised by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology and the County shall conduct a preliminary assessment of the discovery's significance (no Phase II/archaeological significance testing is permitted). If it is determined by the qualified archaeologist that the discovery is significant, the County shall coordinate with the qualified archaeologist to develop appropriate avoidance strategies which may include modifying maintenance design plans to avoid impacting the identified cultural resource, installing protective Environmentally Sensitive Area (ESA) fencing around the identified cultural resource, or implementing archaeological monitoring of the maintenance activities. If ESA fencing is installed, it should be installed under the supervision of a qualified archaeologist who meets or is supervised by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology. The ESA fencing shall remain in place for the duration of the maintenance activity. Should avoidance not be possible, then the activity is no longer considered an RMA-covered activity under this environmental document.

CR-4: Should archaeological monitoring occur for any activity under the RMA program, the archaeological monitor shall inspect the Project area during earth disturbing activities for evidence of cultural resources (including pre-contact and historic-era resources). The archaeological monitor has the authority to request work be stopped, diverted, or slowed if any cultural resource is identified so that a preliminary assessment of the discovery's significance can be completed (no Phase II/archaeological significance testing is permitted).

CR-5: Sections 5097.98 through 5097.993 of the Public Resources Code (PRC) and Section 7050.5 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for the appropriate handling of such remains. If human remains are encountered, work shall halt within 100 feet of the discovery and the County coroner should be notified immediately. At the same time, an archaeologist who meets or is supervised by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology shall be

contacted to assist in the assessment and treatment of the discovery. If the County Coroner determines the remains to be Native American, or has reason to believe that they are those of a Native American, the Coroner shall contact the Native American Heritage Commission within 24 hours.

The Native American Heritage Commission shall designate and contact the Most Likely Descendant (MLD). The MLD shall then have 48 hours to assess the discovery and provide recommended treatments to the County, and if the discovery is located on private property, to the property owner. All treatment recommendations made by MLD and qualified archaeologists shall be documented in the confidential portion of the Project record. All parties shall consult on the recommended treatments. Work in the area(s) of the discovery may only proceed after authorization from the County and in coordination with the MLD and/or qualified archaeologist.

VI. ENERGY

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☒	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan 2030 Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-4.1 *Energy Conservation and Efficiency Measures*; and ERM-4.3 *Local and State Programs*.

Gas and electricity are provided by Pacific Gas & electric with Southern California Edison providing limited electric service to rural or unincorporated areas to the south and western edges of the County.

Impact Analysis

a) Would the project 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 that 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) Would the project 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. 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 maintenance activities aim to repair and maintain existing facilities so that further expense 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.

VII. GEOLOGY/SOILS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 Division of Mines and Geology Special Publication No. 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), 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?	☐	☐	☒	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan 2030 Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: HS-1.2 *Development Constraints*; HS-1.4 *Building and Codes*; HS-1.11 *Site Investigations*; HS-5.1 *Development Compliance with Federal, State, and Local Regulations*; HS-5.2 *Development in Floodplain Zones;* and HS-5.9: *Floodplain Development Restrictions*.

Impact Analysis

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?

i) ***Fault Rupture:*** **No Impact.** The County is divided into two major geologic provinces: the Sierra Nevada Mountains and the Central Valley. Although the Project area is situated in proximity to several fault groups, it is not identified in a delineated Alquist-Priolo Earthquake Fault Zone. 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) ***Ground Shaking:*** **No Impact.** 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 infrastructure. Therefore, the Project would result in ***No Impact***. No mitigation is required.

iii) ***Ground Failure and Liquefaction:*** **No Impact.** The probability of soil liquefaction taking place in the vicinity of the Project area is considered to be a low to moderate hazard. Soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Furthermore, 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.

i) ***Landslides:*** **No Impact.** The valley floor is not very susceptible to landslides, as susceptible areas generally include areas where fractured and steep slopes are present or where inadequate ground cover accelerates erosion. Erosion and ground slumping of soils can also occur along bluffs and banks of the Kaweah, Kings, and Tule Rivers. The routine maintenance activities would be performed on existing infrastructure within the County's creeks and drainages. Therefore, maintenance activities would not create a risk of landslides. There would be ***No Impact*** regarding the potential for landslides. No mitigation is required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The Project area features relatively flat areas with soil conditions that exhibit minimal potential for erosion impacts. 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 RMA 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 the use of small construction equipment or hand tools used in the channel or on the channel banks. The proposed routine maintenance activities would be limited to the minimum amount of fill or sediment removal that can occur below the ordinary high water mark (OHWM) at any single location. Standard BMPs would be implemented during routine maintenance activities to minimize erosion. 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) Would the project 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 Tulare County General Plan 2030, Tulare County is classified as having "Nil" to

"Low" seismic ground shaking hazard and has no recorded declared landslides. This characterization is supported by the State of California Multi-Hazard Mitigation Plan Chapter 6 - Other Hazards: Risks and Strategies, published in October 2010 by the California Geological Survey under the California Department of Conservation. Since the routine maintenance activities would not involve the construction of buildings or structures, 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) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. Expansive soils are more common along the eastern edge of the Project area. In most developed areas, the existing layer of clay has been blended into more granular soils as a part of general site excavation, which helps to reduce the overall soil's expansiveness. Routine maintenance 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) Would the project 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) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated. The potential for paleontological resource discovery is considered low because routine maintenance activities are primarily limited to aboveground work or the removal of stream sediments from relatively recent deposits. However, there is a possibility of unanticipated and accidental paleontological discoveries during ground-disturbing routine maintenance activities. A records search of the University of California Museum of Paleontology (UCMP) database indicates that approximately 13 fossil localities, including invertebrate and vertebrate (mammalian) remains, have been documented within Tulare County[12]. Given the limited depth and localized extent of Project-related disturbances, the likelihood of encountering paleontological resources is low. Implementation of mitigation measure **CR-3** would further reduce potential impacts to paleontological resources to a less than significant level. Therefore, impacts to paleontological resources are considered ***Less Than Significant with Mitigation Incorporated*****.**

Mitigation Measures

The Project would incorporate measure **CR-3**, as described in Section V. CULTURAL RESOURCES.

[12] University of California Museum of Paleontology (UCMP). 2009. Records search of the UCMP fossil locality database for Tulare County, California. Berkeley, CA

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan General Plan, General Plan 2030 Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policy for this resource apply to this Project: AQ-3.5 *Alternative Energy Design.*

Impact Analysis

a) Would the project 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) Would the project conflict with any 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 Climate Adaptation and Resilience Plan. The Project would result in ***No Impact*** on applicable plans, policies, or regulations. No mitigation is required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 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 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policy for this resource apply to this Project: HS-4.1 *Hazardous Materials.*

Impact Analysis

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

Less Than Significant. Routine maintenance construction activities would require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel, and oil; however, these materials would not be transported in more than reportable quantities (55 gallons). Transport and use of these materials will comply with local, state, and federal regulatory requirements. Herbicides, if needed, 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 operation of the Project would not require storage of hazardous materials. The Project would result in ***Less Than Significant Impact***. No mitigation is required.

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

Less Than Significant. 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 ***Less Than Significant***. No mitigation is required.

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

Less Than Significant. While there are several schools in the County within a quarter-mile radius of stream channels where routine maintenance Projects may be implemented, activities involving hazardous materials during construction would be required to comply with all local, state, and federal standards associated with the handling of hazardous materials. Additionally, the operation of the proposed Project would not involve the use of any hazardous materials or have the potential to emit hazardous emissions. Therefore, the Project would result in ***Less Than Significant Impact*** related to hazardous emissions within one-quarter mile of existing or proposed schools. No mitigation is required.

d) Would the project 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?

Less Than Significant. The California EPA has compiled a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The components of the Cortese List include the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, the list of leaking Underground Storage Tank sites from the SWRCB's GeoTracker database, and the list of solid waste disposal sites identified by the SWRCB. These databases were used to evaluate if any sites on the Cortese List would occur in an area where routine maintenance activities would occur[13]. Searches of the above resources identified 36 active sites within the County limits known to handle and store hazardous materials and are associated with a hazardous material related release or occurrence (**Figure 4 and Table 4**)**.**

Table 4. Tulare County Cortese List Sites

Site/Facility Name	Status	Distance from Routine Maintenance Area (feet)
D & N MARKET	Open - Site Assessment	30,689
EL RANCHO MARKET	Open - Site Assessment	6,248

[13] California Environmental Protection Agency. Cortese List Data Resources. https://calepa.ca.gov/sitecleanup/corteselist/. Accessed March 23, 2026.

Site/Facility Name	Status	Distance from Routine Maintenance Area (feet)
MARROQUIN PROPERTY	Open - Remediation	2,256
PRIVATE RESIDENCE	Open - Remediation	17,230
SANDERS MARKET	Open - Site Assessment	31,626
SAVE CENTER #4	Open - Site Assessment	21,988
Springville Food Mart	Open - Eligible for Closure	45,557
SUNNYSIDE HANDY MARKET	Open - Assessment & Interim Remedial Action	25,150
TERRA BELLA MOBIL STATION	Open - Site Assessment	5,756
VALERO BROTHERS EXXON	Open - Verification Monitoring	3,298
BECKMAN INSTRUMENTS, PORTERVILLE PLANT	Certified	20,800
CANDLEWICK YARN	Certified	20,836
Country Club Cleaners, Whitendale	Active	42,388
EDISON/VISALIA POLE YARD	Certified O&M - Land Use Restrictions Only	44,190
FLEX-MULTILAYER, INC.	Certified	27,497
Former Village Cleaners	Active	42,889
Former Webster Cleaners	Active	40,137
GOSHEN AVENUE AND SHIRK ROAD SITE	Active	32,772
Goshen Carbon Tet Plume	Active	19,000
HARMON FIELD	Certified / Operation & Maintenance	17,616
Kaweah - Shannon and Ritchie Shop Site	Certified / Operation & Maintenance	24,804
KAWEAH CROP DUSTER-GREEN ACRES AIRPORT	Certified	38,202
Lamoure's Cleaners, Mooney	Active	42,286
Miller's Cleaners, Whitendale	Active	42,707
One Hour Martinizing	Active	43,299
One Hour Martinizing Mooney	Active	45,359
Paragon Dry Cleaners	Active	43,662
PARMENTER AND BRYAN	Active	913
POLE STORAGE AREA (VISALIA POLE YARD)	Certified	44,190
Porterville MGP	Active	24,039
Porterville PCE Plume	Active	21,411
Simplot - Traver	Active	17,125
SO CAL GAS/DINUBA MGP	Active	25,973
SO CAL GAS/VISALIA MGP	Certified / Operation & Maintenance	44,597
Visalia Dry Cleaner Investigation	Active	44,370
Exeter SWDS	N/A	19,050

Routine maintenance activities would occur along creeks, basins, and drainages. Potential Project activities will not occur at the active hazardous materials sites listed in **Table 4**. The active site that is nearest to proposed routine maintenance activities is the Parmenter and Bryan site in Orosi. This site is over 900 feet away from proposed activities. ***No Impact*** would result from the Project. No mitigation is required.

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 the project area?

No Impact. There are several airports in the vicinity of the Project area[14]. 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 hazards or excessive noise for people residing or working in the Project area. No mitigation is required.

f) Would the project 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 the development of the proposed Project. No mitigation is required.

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

No Impact. The proposed routine maintenance agreement with CDFW will streamline the regulatory permitting process for planned routine maintenance, including ladder fuel reduction and weed abatement. Implementing the Project is expected to reduce the risk of fire spreading within the City's creek corridors and will not expose the community to an increased risk of wildfire. Therefore, ***No Impact*** would result from proposed maintenance activities. No mitigation is required.

[14] Tulare County Airport Land Use Commission. Tulare County Comprehensive Airport Land Use Plan. https://tularecounty.ca.gov/rma/rma-documents/planning-documents. Accessed March 23, 2026.

X. HYDROLOGY AND WATER QUALITY

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 erosion or siltation on-or off-site;	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: WR-1.2: *Groundwater Monitoring*; WR-1.4: *Conversion of Agricultural Water Resources*; WR-2.1 *Protect Water Quality*; WR-2.2 *National Pollutant Discharge Elimination System (NPDES) Enforcement*; WR-2.3 *Best Management Practices (BMPs)*; WR-2.4 *Construction Site Sediment Control*; WR-2.8: *Point Source Control;* WR-2.9 *Private Wells*; WR-3.3 *Adequate Water Availability;* WR-3.5: *Use of Native and Drought Tolerant Landscaping*; WR-3.10: *Diversion of Surface Water*; HS-5.1 *Development Compliance with Federal, State, and Local Regulations*; HS-5.2 *Development in Floodplain Zones;* PFS-4.2 *Site Improvements*; and PFS-4.7: *NPDES Enforcement*.

Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality

Less Than Significant Impact With Mitigation Incorporated. The proposed routine maintenance activities would comply with the relevant USACE Section 404 permitting requirements, 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 on surface water resources. 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 **FISH-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) Would the project 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) Would the project 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: result in substantial erosion or siltation on-or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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 impede or redirect flood flows?

i) ***Erosion and Siltation:*** **Less Than Significant Impact.** Channel maintenance may involve the removal/displacement of accumulated silt, sand, or sediment in the vicinity of man-made facilities or structures that cause an obstruction to the channel's flow. All work would be conducted during naturally dry conditions. As discussed in response a) above, the proposed project would be required to comply with the relevant USACE Section 404 permitting requirements, 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) ***Runoff and Flooding:*** **No Impact.** The Project consists of maintenance in County creek channels 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 off-site is not anticipated to occur. The Project would result in ***No Impact***. No mitigation is required.

iii) ***Drainage Systems and Polluted Runoff:*** **Less Than Significant Impact.** Chapter 11 of the Tulare County General Plan contains the Water Resources Element which includes policies addressing stormwater management and drainage capacity. The proposed routine maintenance activities would not create or contribute additional runoff. By maintaining existing channels and drainage infrastructure, the Project would support the continued function of existing and planned stormwater systems to accommodate current and future runoff flows. The Project would not generate 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 the General Plan 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) If in a flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No Impact. The Project area 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) Would the project conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The routine maintenance activities would comply with the relevant USACE Section 404 permitting requirements, 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 on water quality are considered a ***Less Than Significant Impact***. No mitigation is required.

Mitigation Measures

The Project would incorporate measure **FISH-1**, as described in Section IV. BIOLOGICAL RESOURCES.

XI. LAND USE AND PLANNING

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-1.6: *Permitting Procedures and Regulations;* LU-1.10: *Roadway Access;* LU-7.9: *Visual Access;* LU-7.15: *Energy Conservation;* ED-5.4 *Recreational Accommodations*; ED-5-5 *Rivers;* ERM-5.15: *Open Space Preservation;* PF-1.1: *Maintain Urban Edges;* PF-1.5: *Planning Areas;* and PF-2.9: *Zoning in Communities*.

According to the General Plan RDEIR, land use in the vicinity of the Project area is primarily Foothill Agriculture and Valley Agriculture. As depicted in **Figure 1**, the proposed Project would be located within the urban development areas.

Impact Analysis

a) Would the project physically divide an established community?

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

b) Would the project 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 adopted for the purpose of avoiding or mitigating an environmental effect, including the Tulare County General Plan Update 2030. ***No Impact*** due to conflicts with any land use policy is expected. No mitigation is required.

XII. MINERAL RESOURCES

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

There are no Tulare County General Plan 2030 Update policies for this resource that apply to the RMA.

Impact Analysis

a) Would the project 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. In Tulare County, most of the high-quality sand and gravel deposits are associated with major river systems outside of the Project area, including the Kaweah River and Tule River, with additional mineral resources occurring along Lewis Creek and within foothill hard rock formations. As a routine maintenance project, the proposed activities would not alter existing land use or result in the loss of availability of known mineral resources or designated mineral resource zones. Therefore, the Project would have ***No Impact*** on mineral resources, and no mitigation is required.

b) Would the project 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-term use plan. Therefore, the Project would have ***No Impact*** on mineral resources. No mitigation is required.

XIII. NOISE

Would the project result in:	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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 applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive ground-borne vibration or ground-borne 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: HS-8.11 *Peak Noise Generators*; HS-8.15 *Noise Buffering*; HS-8.18 *Construction Noise*; and HS-8.19 *Construction Noise Control*.

Impact Analysis

a) Would the project generate 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 applicable standards of other agencies?

Less Than Significant Impact. Noise may be generated during routine maintenance activities by traffic associated with the 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. Examples of noise generating actions involved in maintenance activities would generate noise levels ranging from 76 to 88 dB at a distance of 50 feet (**Table 5**). 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 5. Typical Construction Equipment Noise Levels

Type of Equipment	Typical Noise Level 50 feet from Source (dBA)[15]

[15] FHWA. Construction Noise Handbook. https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm. Accessed March 27, 2026.

Pneumatic Tools	85
Pumps	76
Dozers	85
Loaders	85
Backhoes	80
Excavators	85
Graders	85
Compactor	82
Air Compressors	81
Truck	88

b) Would the project generate excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact. The proposed routine maintenance activities would only require the 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 within two miles of 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.

XIV. POPULATION AND HOUSING

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

There are no Tulare County General Plan 2030 Update policies for this resource that apply to this Project.

Impact Analysis

a) Would the project 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 the construction of additional public roadways or infrastructure such as wastewater treatment facilities. ***No Impact*** would result from the Project. No mitigation is required.

b) Would the project 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, and no mitigation is required.

XV. PUBLIC SERVICES

Would the project result in:	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a) Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:				
i) Fire protection;	☐	☐	☐	☒
ii) Police protection;	☐	☐	☐	☒
iii) Schools;	☐	☐	☐	☒
iv) Parks; or,	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: LU-1.10 *Roadway Access*; PFS-7.1: *Fire Protection*; PFS-7.2 *Fire Protection Standards*; PFS-7.5 *Fire Staffing and Response Time Standards*; and PFS-7.9 *Sheriff Response Time*.

Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services?

i) ***Fire Protection:***
ii) ***Police Protection:***
iii) ***Schools:***
iv) ***Parks:***
v) ***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 the proposed Project. No mitigation is required.

XVI. RECREATION

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan General Plan RDEIR, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-5.8: *Watercourse Development* and ERM-5.15: *Open Space Preservation.*

Impact Analysis

a) Would the project 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 stormwater 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***, and no mitigation is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed routine maintenance would not affect any existing recreational facilities, and no impact on recreational resources is expected. ***No Impact*** would result from the Project, and no mitigation is required.

XVII. TRANSPORTATION

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	☐	☐	☒	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, Tulare County SB 743 Guidelines, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: TC-1.3: *Regional Coordination* and LU-1.10 *Roadway Access.*

Tulare County SB 743 Guidelines[16]
SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under CEQA. Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA and the new performance measure will be vehicle miles traveled (VMT). Although statewide guidance for the implementation of SB 743 has been written by the Governor's Office of Planning and Research (OPR), CEQA allows lead agencies (including Tulare County) the latitude to determine their own methodologies and significance thresholds for CEQA technical studies. The SB 743 Guidelines are based on the statewide guidance provided by OPR, but they include clarifications and details tailored for and specific to local conditions in Tulare County.

As stated in page 21 of these Guidelines, certain types of transportation projects are presumed to have a less than significant impact on transportation. A list of these projects is shown below.

- Maintenance
- Safety
- Operational Improvements
- Transit
- Reductions in Roadway Capacity
- Pedestrian and Bicycle Facilities

[16] Tulare County. SB 743 Guidelines. April 2026.

Impact Analysis

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

Less Than Significant. During construction, lane closures will take place during certain channel maintenance activities; however, they will be short term and temporary. The County will coordinate with emergency services such as the Tulare County Sherriff, Fire Department, and CHP on construction start and durations prior to construction on channel maintenance activities that may impact traffic. Thus, construction of the project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.

As the project would implement channel maintenance activities and would not result in additional travel lanes, there would be no permanent changes to the existing circulation system including transit, roadway, bicycle, and pedestrian facilities. The post-project condition would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. A ***Less Than Significant Impact*** would occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

No Impact. As described above, SB 743 was approved in 2013 and revised the method for assessing transportation impacts under CEQA. OPR has recommended the use of VMT as the required metric to replace the automobile delay-based LOS. The VMT assessment is required to satisfy CEQA guidelines that utilize VMT as the required metric to determine transportation impacts. Under SB 743 and additional guidance from OPR, 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[17]. Thus, the Project would have ***No Impact*** with respect to VMT, and no VMT analysis would be required, and no mitigation is required.

c) Would the project substantially increase hazards due to a geometric design feature or incompatible uses?

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

d) Would the project result in inadequate emergency access?

Less Than Significant. The Project would not change the existing roadway geometry and would not change emergency access during or after Project completion. During construction, temporary lane closures may result in minor increase in congestion but would not be expected to substantially limit emergency access as a single lane will remain available for emergency use. Additionally, traffic would comply with laws requiring yielding right-of-way to emergency response vehicle. Due to the temporary nature of lane closures related to the Project, impacts would be ***Less Than Significant***.

[17] Caltrans. Transportation Analysis under CEQA. September 2020.

XVIII. TRIBAL CULTURAL RESOURCES

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:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 I of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, the Cultural Resources Technical Report developed for this Project, and the resources cited in this analysis. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: ERM-6.1 *Evaluation of Cultural and Archaeological Resources;* ERM-6.3: *Alteration of Sites with Identified Cultural Resources*; ERM-6.4: *Mitigation*; ERM-6.7 *Cooperation of Property Owners;* ERM-6.8 *Solicit Input from Local Native Americans;* ERM-6.9: *Confidentiality of Archaeological Sites*; and ERM-6.10: *Grading Cultural Resources Sites*.

Description of the Project Area Limits

As the Project consists of maintenance activities to and within existing stream/canal corridors, the Project Area Limits (PAL) would consist of the physical boundaries of these water corridors. The PAL includes a 200-foot wide corridor centered on the County-maintained portions of the following creeks (100 feet from centerline to encompass the associated riparian corridor): Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek.

Sensitivity Modeling

The Project Area Limits (PAL) is centered on waterways within Tulare County which have long attracted human settlement in both pre-contact and historic time periods. Waterways often consist of a myriad of tributaries feeding into major rivers, creating areas exploited for their vast and diverse food resources, fresh drinking water, agricultural potential, travel, and transportation/movement of goods. As waterways provided many resources and opportunities, archaeological sites and historic resources are often found in and near them. Cultural resource site types found throughout the PAL vicinity include the following:

- Pre-contact-era habitation sites
- Pre-contact-era stone tool production, including both flaked and ground tools;
- Pre-contact-era and Historic-era food/resource gathering areas
- Pre-contact-era and Historic-era burials and cemeteries
- Historic-era trash scatters

- Historic-era structural ruins
- Historic-era water conveyance and control features (canals, man-made or altered natural stream channels, weirs, check dams, culverts, levees, etc.)
- Historic-era agricultural-related cultural resources (irrigation, remnants of abandoned crop rows, etc.)
- Historic-era farming/ranching-related cultural resources (corrals, equipment, fencing, etc.)
- Historic-era transportation infrastructure (bridges, culverts, railroads)

As this Project consists of a routine maintenance program implemented on creeks located throughout Tulare County, a cultural sensitivity model was developed to determine which areas of the PAL had a high sensitivity for cultural resources and would require cultural resources survey and resource assessment prior to implementation of any routine maintenance activities to determine if a historical resource, as defined under CEQA, is present and would be significantly affected. Cultural resource sensitivity designation prepared for this Project is based on the data collected at the Southern San Joaquin Valley Information Center (SSJVIC) in February 2025 and the types of routine maintenance activities proposed. Native American consultation was sought, but no Native American Tribes requested to consult on this Project.

Frist, the proposed activities were separated into those which constitute non-ground-disturbing, or "Above Ground", activities and those which constitute ground-disturbing, or "Below Ground", activities:

Above Ground Maintenance Activities consist of the following:

- Vegetation Trimming/Mowing
- Goat Grazing
- Placing fill dirt
    - Does not include more than 3-inches of ground surface excavation prior to placement of fill dirt
- Bridge Washing and Graffiti Removal

Below Ground Maintenance Activities consist of the following:

- Removal, Replacement, or Repair of Facilities
- Channel Alignment Maintenance
- Debris or Obstruction Removal Via Mechanical Equipment
- Silt, Sand, or Sediment Removal
- Vegetation Control in Channels or on Banks
    - Involving more than 3-inches of ground surface excavation
- Minor Erosion Control Work
- Repair of Previous Erosion Control Work
- Water Diversions
    - Includes when materials will be "Keyed" into channel or embankments
- Geotechnical Sampling
- Cultural Resource – Extended Phase I Investigation

Above Ground Maintenance Activities would not result in the alteration of the ground surface (beyond 3 inches) and would not involve subsurface ground disturbance. These types of activities would not diminish the characteristics that make cultural resources eligible for the California Register of Historical Resources (CRHR), assuming such a resource was present. Below Ground Maintenance Activities are those which would result in the alteration of the ground surface and subsurface. These activities do have the potential to alter the characteristics which make a cultural resource eligible for the CRHR, assuming such a resource was present.

Additionally, several waterways within the APE have been purposely modified for irrigation and have reached or may reach 50 years in age during the lifespan of this RMA. The County is assuming that these resources are eligible for listing on the CRHR for the purposes of this Project only. The proposed maintenance activities would not alter the characteristics that would make these resources significant, which primarily consists of their alignment and function

as water conveyance features. The proposed maintenance activities would only restore the existing waterways to their original form, function, and use. For this reason, this resource type is discussed collectively as a historical resource for this Project only (future projects will be required to assess significance and eligibility for listing on the CRHR).

Furthermore, pipe culverts which may be over 50 years in age and present throughout the PAL represent a commonly installed drainage control feature type that continues to be utilized in modern day throughout California and the United States of America. The ubiquitous nature of pipe culverts means that these features do not have high artistic value, do not represent the work of an important creative individual, and are not associated with important individuals or events. Therefore, pipe culverts present within the PAL are not considered eligible for the CRHR and are not considered historical resources, as defined under CEQA. For this reason, pipe culverts are not discussed further in this document.

After assessing the types of proposed maintenance activities, the results of the map research and SSJVIC records were utilized to generate a cultural resource sensitivity model of the PAL. As part of this model, two maintenance activity categories have been designated for the PAL which detail whether cultural resource survey is needed prior to implementation of routine maintenance activities:

Category A —Cultural Resource Survey Not Required

Areas which have been surveyed post-1990 (when current archaeological identification standards were established) and which do not have any recorded cultural resources, have been determined as having low to very low cultural sensitivity, and are classified as Category A. Additionally, sections of waterways that have been artificially altered from their natural course through landform modification and re-channelization, as identified through comparison of current and historic aerial imagery/topographic maps, have also been categorized as Category A. Because proposed routine maintenance activities would occur within the already disturbed construction footprint of these altered waterways, the likelihood of encountering cultural resources during these activities is significantly reduced. For routine maintenance areas classified as Category A, both Above Ground and Below Ground Maintenance Activities are permitted without a cultural resources survey prior to implementation. Prior to implementing any activity, the County will review **the** Project Area Limits–Cultural Sensitivity/Requirements, documented in the Cultural Resources Technical Report, for more information on the categories and locations within the Project. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information.

Category B—Cultural Surveyed Required for Below Ground Activities

Routine maintenance areas which either have not been previously surveyed or were surveyed prior to 1990 (when current archaeological identification standards were established) are classified as Category B. In Category B designated areas, cultural resources survey and eligibility assessment must occur prior to Below Ground Maintenance. The cultural resources survey and eligibility assessment must be conducted or overseen by an archaeologist who meets the Secretary of the Interior's Standards In Archaeology. If cultural resources are identified and determined to be significant and therefore eligible for listing on the CRHR, including significant pre-contact cultural resources which are determined to be Tribal Cultural Resources, these resources must be protected in place and no Project activities can occur which may impact them.

No cultural resource identification efforts are required for above ground activities in Category B. Prior to implementing any activity, the County will review **the** Project Area Limits–Cultural Sensitivity/Requirements documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information.

Native American Consultation

The County sent notification letters attached via email and by certified mail on August 21, 2025 to the Native American Tribes that were included on the contact list provided by the Native American Heritage Commission (NAHC). No Native American Tribes requested to consult on the Project. See below for a summary of outreach.

- *Big Sandy Rancheria of Western Mono Indians*
    - No response.
- *Dunlap Band of Mono Indians*

    o Tribal Liaison Charley responded via voicemai on September 12, 2025 that the Project area was not within the Dunlap Band of Mono Indian's area and that the County should contact the Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, and the Wuksachi Tribe.

- *Cold Springs Rancheria of Mono Indians of California*
    - No response.
- *Kitanemuk & Yowlumne Tejon Indians*
    - No response.
- *Mono Lake Kootzaduka'a Tribe*
    - No response.
- *North Fork Mono Tribe*
    - Chairman Goode responded via email on August 22, 2026 that the Project area was not within the North Fork Mono Tribe's area and that the County should contact the Tule River Indian Tribe. Chairman Goode also stated that if the Tule River Indian Tribe did not respond and a Tribal monitor was required for the Project that the North Fork Mono Tribe could provide a monitor.
- *Santa Rosa Rancheria Tachi Yokut Tribe*
    - No response.
- *Table Mountain Rancheria*
    - Director Pennell responded via letter stating that the Project was beyond Table Mountain Rancheria's interest.
- *Traditional Choinumni Tribe*
    - No response.
- *Tule River Indian Tribe*
    - No response.
- *Wuksachi Indian Tribe/Eshom Valley Band*
    - No response.

Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources?

Less than Significant Impact with Mitigation. There are no known Tribal Cultural Resources identified within the Project area. However, some routine maintenance activities have the potential to harm Tribal Cultural Resources, assuming such resources are present, if the appropriate treatment measures are not followed. Activities that take place above or at ground surface, as detailed in the Above Ground Maintenance Activities defined in the preceding section, do not have the potential to harm these resources; however, activities that require below-ground surface (excavation or earth movement) disturbance, as detailed in the Below Ground Maintenance Activities defined above, do have the ability to harm historical resources.

As previously noted, this Project consists of a routine maintenance program implemented over a 12–17-year period within the County. Due to the duration of the Project and as activities and locations will be defined on an as needed basis, a category system has been created to detail whether a cultural resource survey is needed prior to implementation of routine maintenance work. The County will review **the** Project Area Limits–Cultural Sensitivity/Requirements documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project to determine which category the proposed maintenance activities fall within. Please note that the Cultural Resources Technical Report is confidential

and not included in the public version of this document to protect sensitive cultural information. Implementation of mitigation measures **CR-1** through **CR-5** would reduce potential impacts to Tribal Cultural Resources to a less than significant level. Therefore, impacts to Tribal Cultural Resources are considered **Less Than Significant with Mitigation Incorporated**.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency to be significant or have significance to a Native American Tribe?

Less than Significant Impact with Mitigation. There are no known Tribal Cultural Resources identified within the Project area. However, some routine maintenance activities have the potential to harm Tribal Cultural Resources, assuming such resources are present, if the appropriate treatment measures are not followed. Activities that take place above or at ground surface, as detailed in the Above Ground Maintenance Activities defined in the preceding section, do not have the potential to harm these resources; however, activities that require below ground surface (excavation or earth movement) disturbance, as detailed in the Below Ground Maintenance Activities defined above, do have the ability to harm historical resources.

As previously noted, this Project consists of a routine maintenance program implemented over a 12–17-year period within the County. Due to the duration of the Project and as activities and locations will be defined on an as needed basis, a category system has been created to detail whether a cultural resource survey is needed prior to implementation of routine maintenance work. The County will review the Project Area Limits–Cultural Sensitivity/Requirements documented in the Cultural Resources Technical Report for more information on the categories and locations within the Project to determine which category the proposed maintenance activities fall within. Please note that the Cultural Resources Technical Report is confidential and not included in the public version of this document to protect sensitive cultural information. Implementation of mitigation measures **CR-1** through **CR-5** would reduce potential impacts to Tribal Cultural Resources to a less than significant level. Therefore, impacts to Tribal Cultural Resources are considered **Less Than Significant with Mitigation Incorporated**.

Mitigation Measures

The Project will incorporate measures **CR-1** through **CR-5**, as described in Section V. CULTURAL RESOURCES.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications 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 which 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General Plan, General Plan Background Report, Tulare County General Plan RDEIR, Tulare County Housing Element Action Program 9, Tulare County SB 522 Drought and Water Shortage Risk analysis and Response Plan, and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: PFS-1.4: *Standards of Approval*; PFS-4.7: *NPDES Enforcement*; PFS-5.7 *Provisions for Solid Waste Storage, Handling, and Collection*; and PFS-5.8: *Hazardous Waste Disposal Capabilities.*

Impact Analysis

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The proposed Project would not require or result in the construction of new water or wastewater treatment facilities or the 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, and no mitigation is required.

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

No Impact. The proposed Project would not increase water supply demand. Therefore, ***No Impact*** would result from the Project, and no mitigation is required.

c) Would the project result in a determination by the wastewater treatment provider which 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 proposed Project would not affect wastewater treatment. Therefore, ***No Impact*** would result from the Project, and no mitigation is required.

d) Would the project 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 accumulated debris from the proposed maintenance activities, such as silt, gravel, and sediment removal totaling an estimated 1,000 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, a ***Less Than Significant Impact*** would result from the Project, and no mitigation is required.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The Project would comply with statutes and local regulations related to solid waste as identified above. No impact would occur under this threshold. Therefore, ***No Impact*** would result from the Project, and no mitigation is required.

XX. WILDFIRES

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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 or maintenance 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?	☐	☐	☐	☒

Background Information

The following analysis is based on the information provided in the Tulare County General, General Plan Background Report, Tulare County General Plan RDEIR, Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) and the resources cited in this analysis.

The following Tulare County General Plan 2030 Update policies could apply to this Project if it were located on sloped areas, fire hazards areas, lands susceptible to landslides, subsidence/settlement, contamination, and/or flooding; potential for wildland fires; etc.: ERM-7.3 *Protection of Soils on Slopes*; HS-1.5 *Hazard Awareness and Public Education*; HS-1.11 *Site Investigations*; HS-6.1 *New Building Fire Hazards*; HS-6.2 *Development in Fire Hazard Zones*; HS-6.3 *Consultation with Fire Service Districts*; HS-6.5 *Fire Risk Recommendations*; HS-6.6 *Wildland Fire Management Plans*; HS-6.13 *Restoration of Disturbed Land*; HS-6.14 *Coordination with Cities*; and HS-6.15 *Coordination of Fuel Hazards on Public Lands*.

Impact Analysis

a) Would the project 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 impact to future emergency response plans. Therefore, the Project would result in ***No Impact***, and no mitigation is required.

b) Would the project, 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?

Less Than Significant Impact. Portions of the Project areas in the eastern extent of the County, including Frazier Creek, are located in moderate Fire Hazard Severity Zones (FHSZ)[18] and are designated as Local Responsibility Areas (LRAs). The routine maintenance activities would be implemented within drainage

[18] CAL FIRE. Fire Hazard Severity Zone Viewer. April 2026.

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, impacts would be ***Less Than Significant***, and no mitigation is required.

c) Would the project require the installation or maintenance 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***, and no mitigation is required.

d) Would the project 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 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***, and no mitigation is required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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 a rare or endangered plant or animal 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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 a rare or endangered plant or animal 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 the implementation of the Mitigation Measures described in Section IV. BIOLOGICAL RESOURCES and Section V. CULTURAL RESOURCES, 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 on biological resources, tribal and cultural resources, and

hydrology and water quality such that no cumulative impacts are anticipated.

While individual routine maintenance activities would not have significant effects on biological resources, the cumulative effect on aquatic and riparian habitats may be significant, with approximately 30 projects anticipated per year over a 12-year period. With the incorporation of Mitigation Measure BIO-11, 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 which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impacts. 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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ATTACHMENT A: Figures

Figure 1. Project Location

Figure 2. Project Area

Figure 3. Public Agency Jurisdictions within Tulare County

Figure 4. Tulare County Cortese List Sites

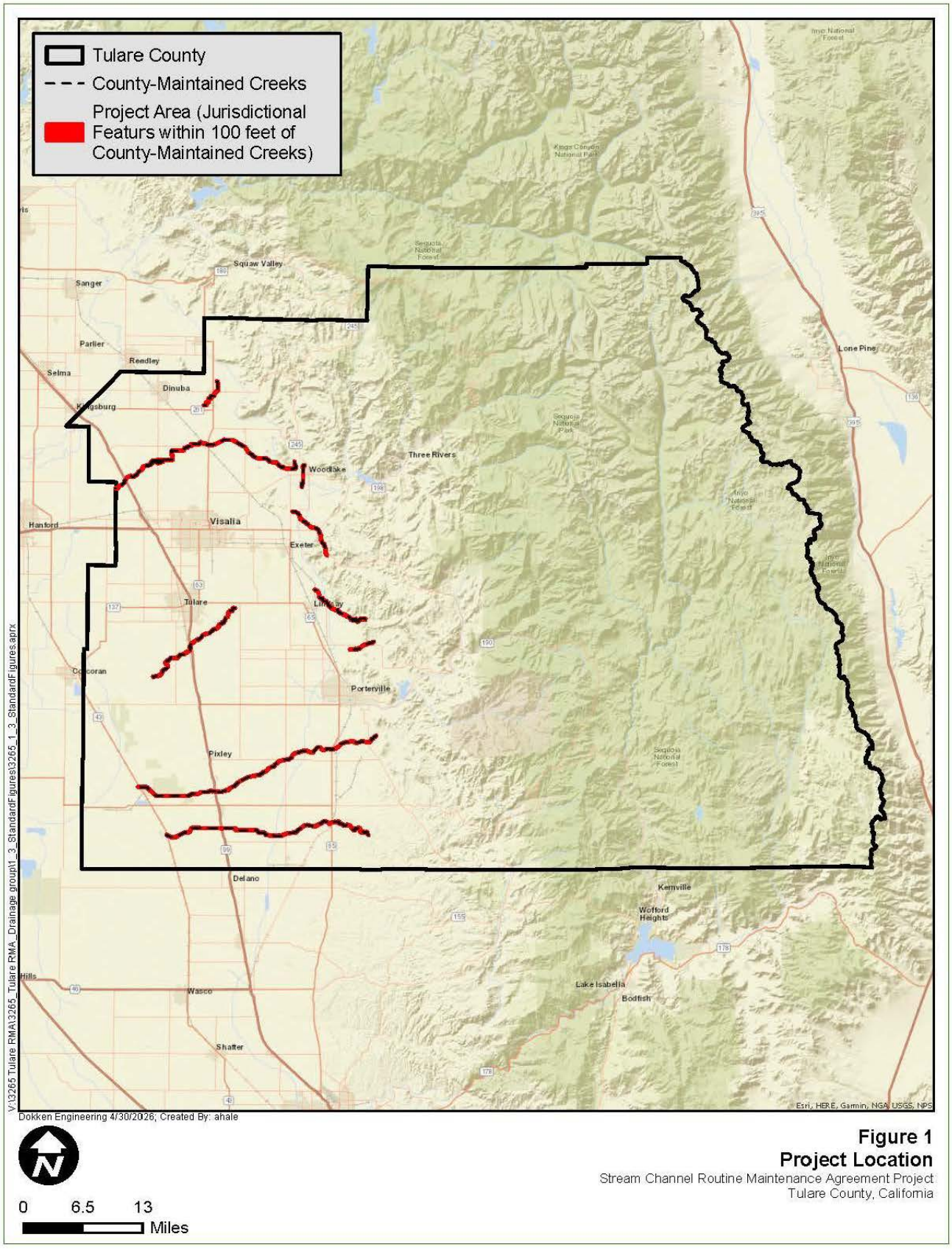


Figure 1
Project Location
Stream Channel Routine Maintenance Agreement Project
Tulare County, California

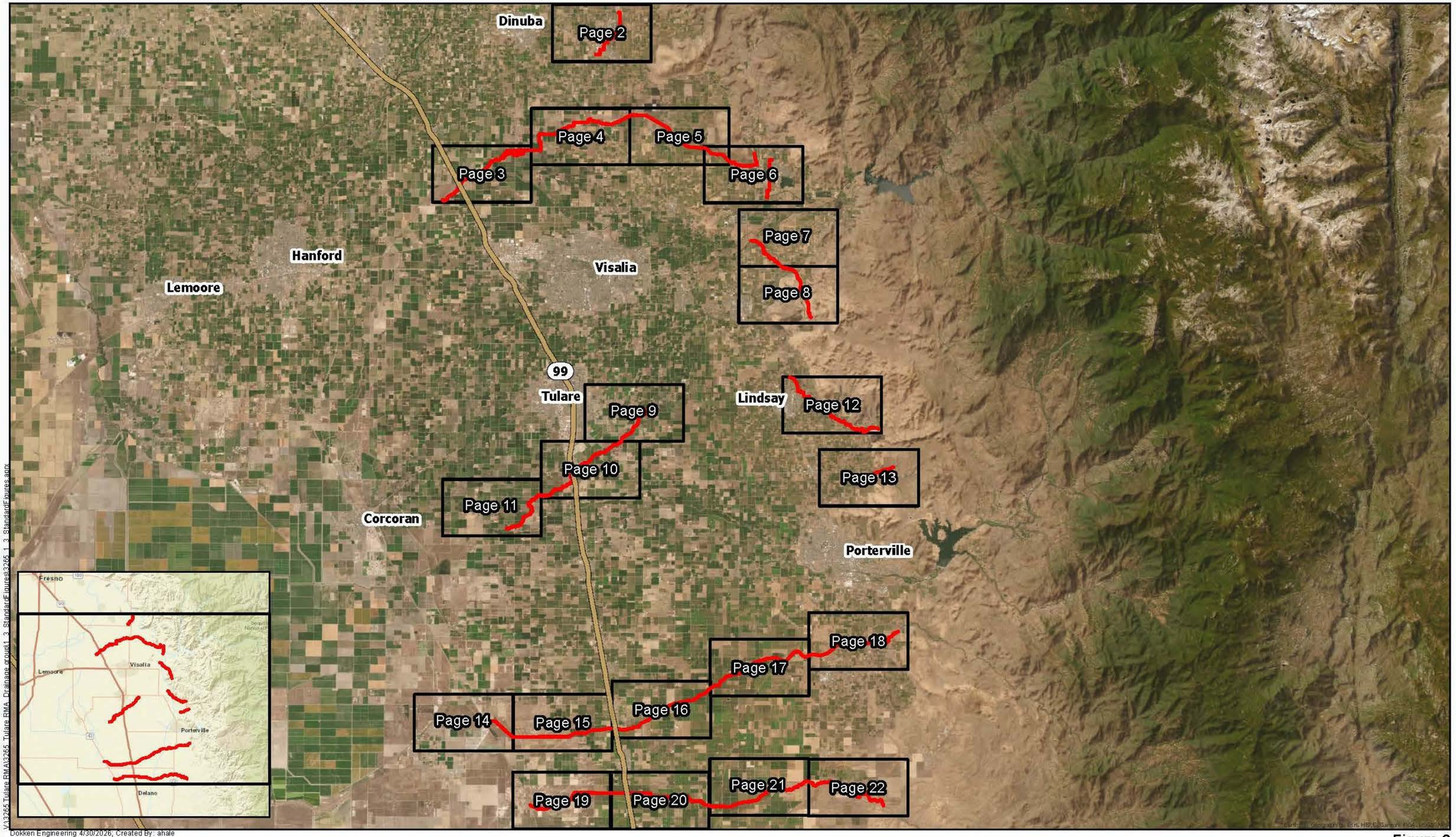
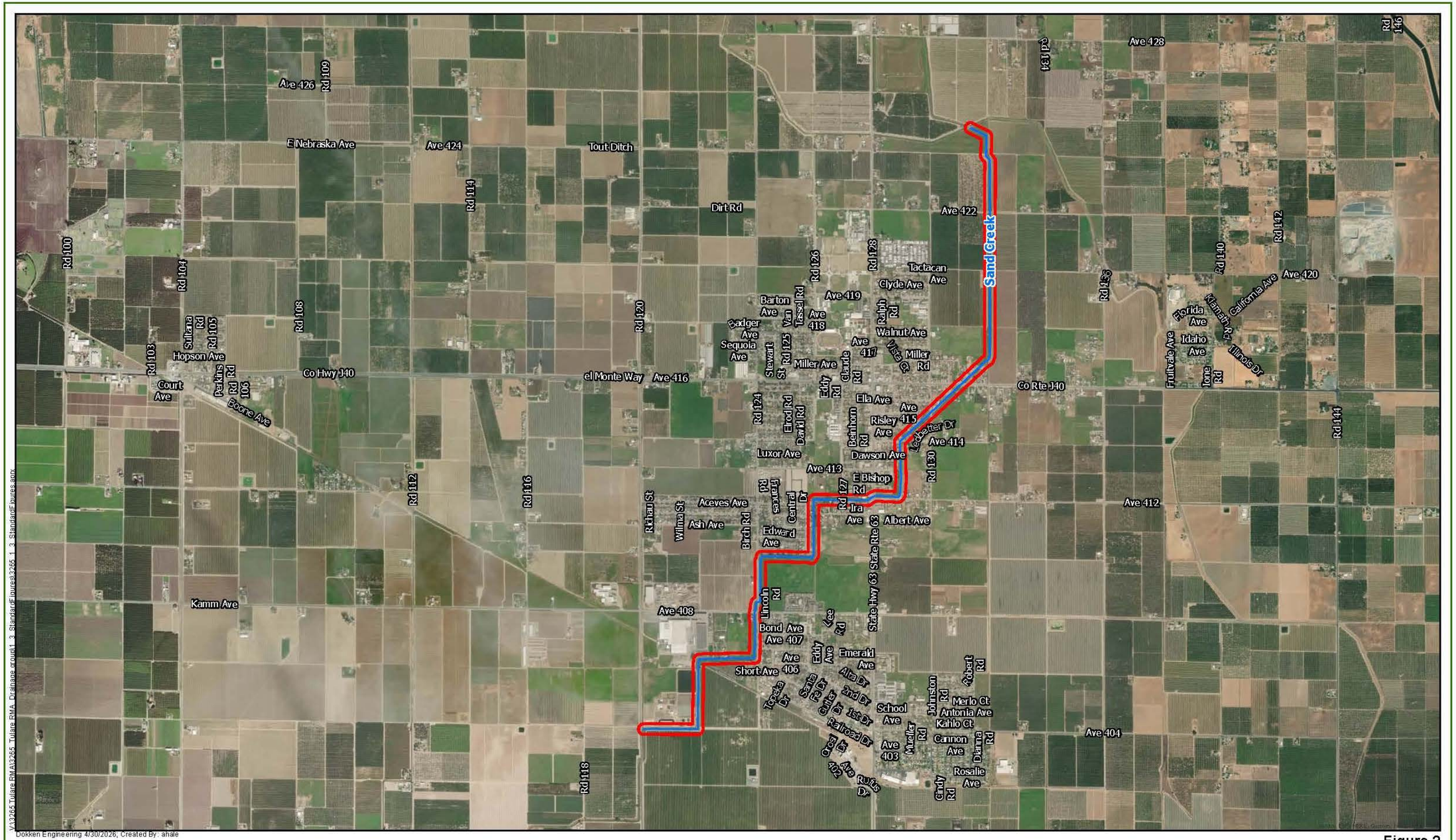


Figure 2
Project Area
Page 1 of 22
Stream Channel Routine Maintenance Agreement Project
Tulare County, California



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Dokken Engineering 4/30/2026, Created By: ahale

0 1,000 2,000 Feet

Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

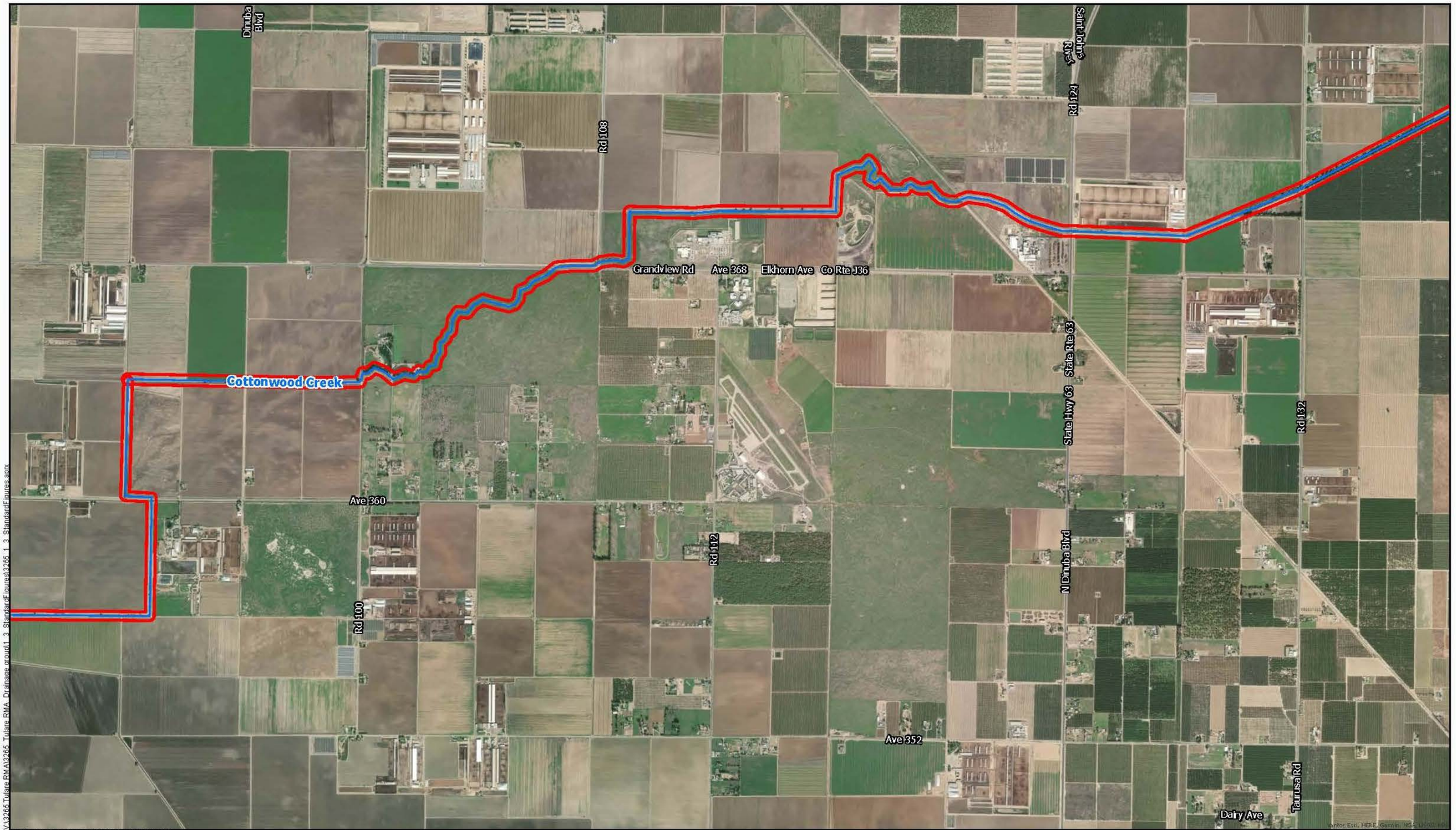
County-Maintained Creeks

Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California



Figure 2
Project Area
Page 3 of 22
Stream Channel Routine Maintenance Agreement Project
Tulare County, California



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Dokken Engineering 4/30/2026; Created By: ahale

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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks

Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California

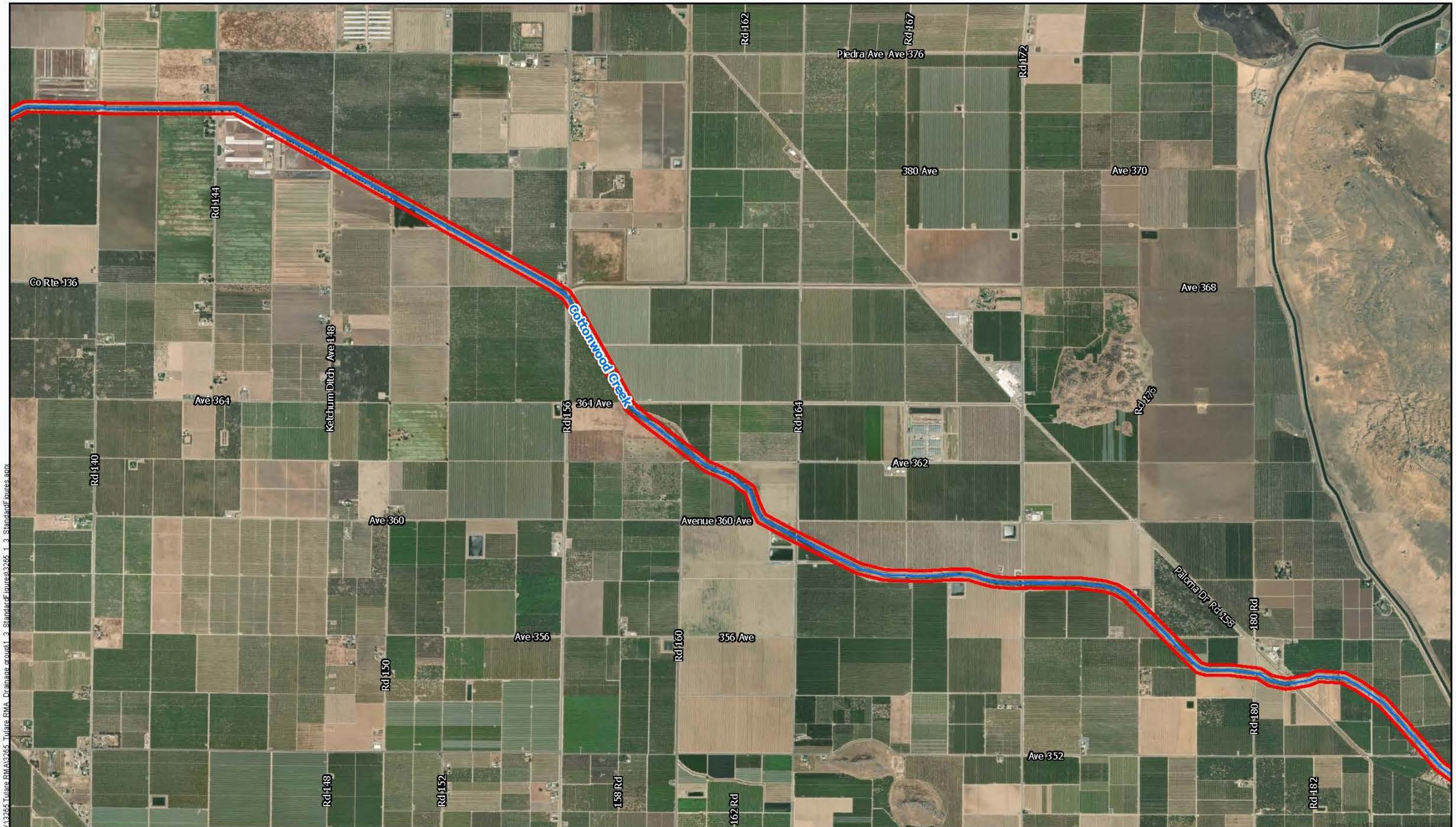
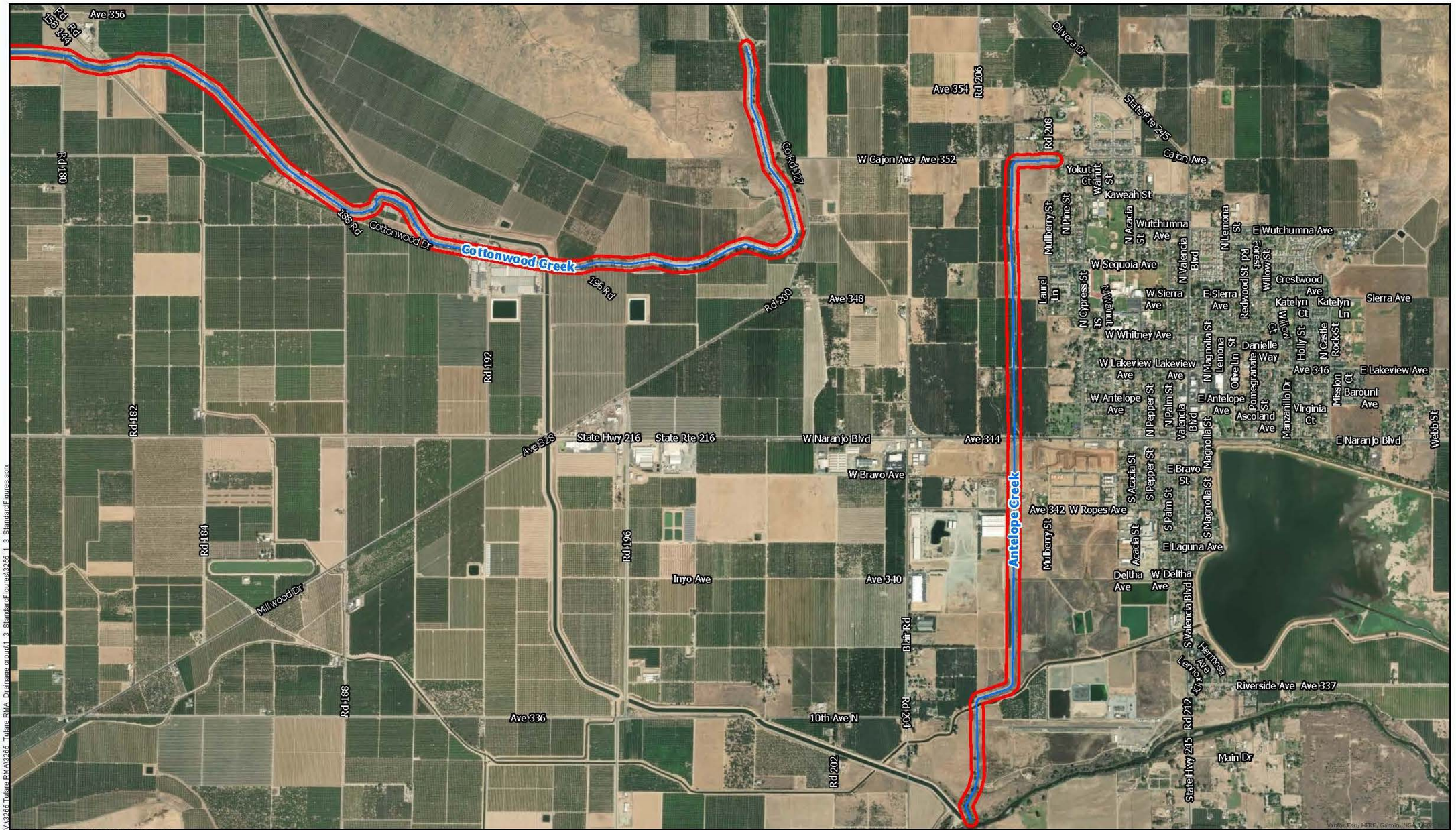


Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California



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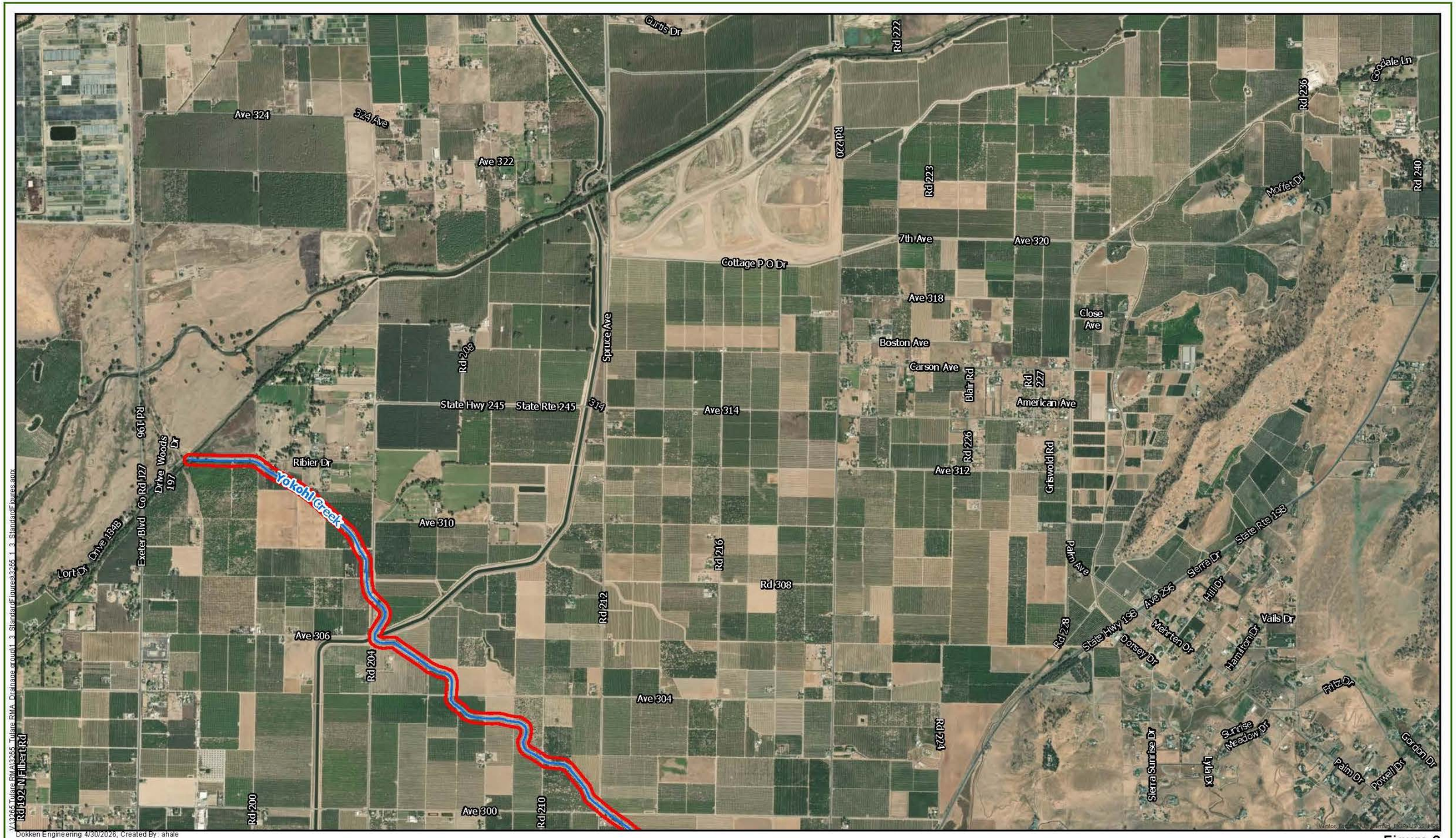
Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks



Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California



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Dokken Engineering 4/30/2026, Created By: ahale

0 1,000 2,000 Feet

Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks



Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California



Dokken Engineering 4/30/2026; Created By: ahale

0 1,000 2,000 Feet

Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks

Figure 2
Project Area
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Tulare County, California

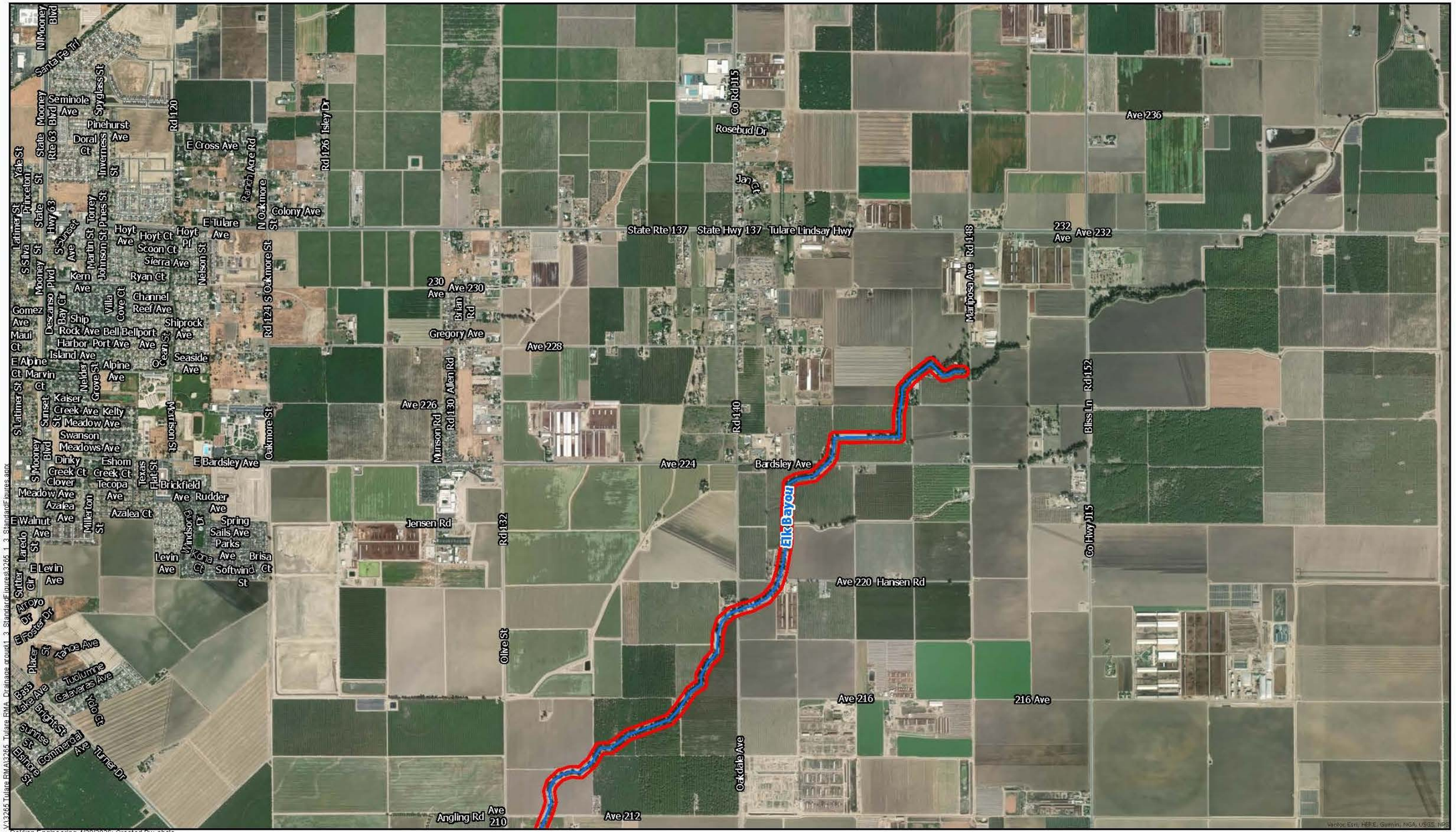
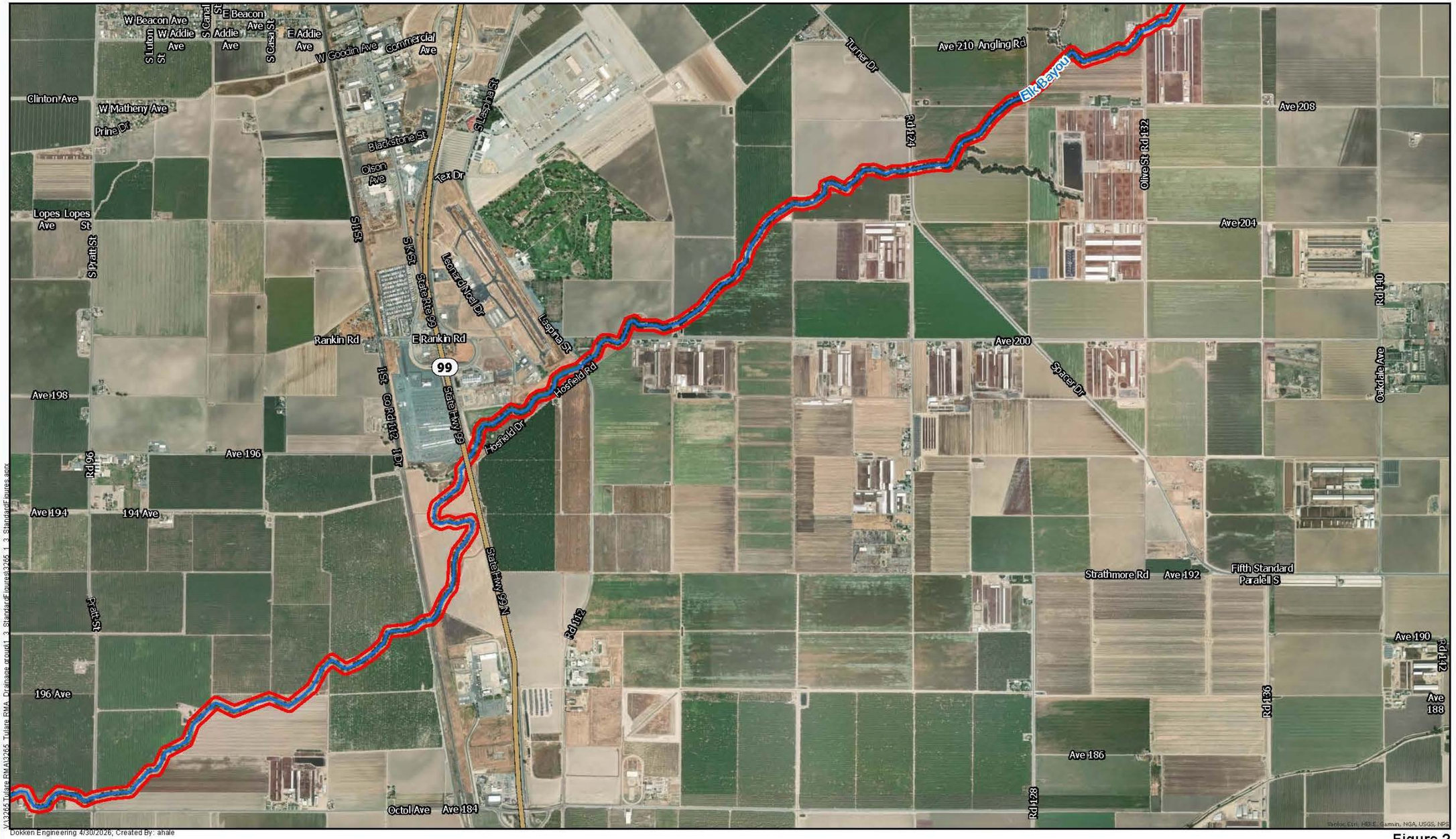


Figure 2
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Tulare County, California



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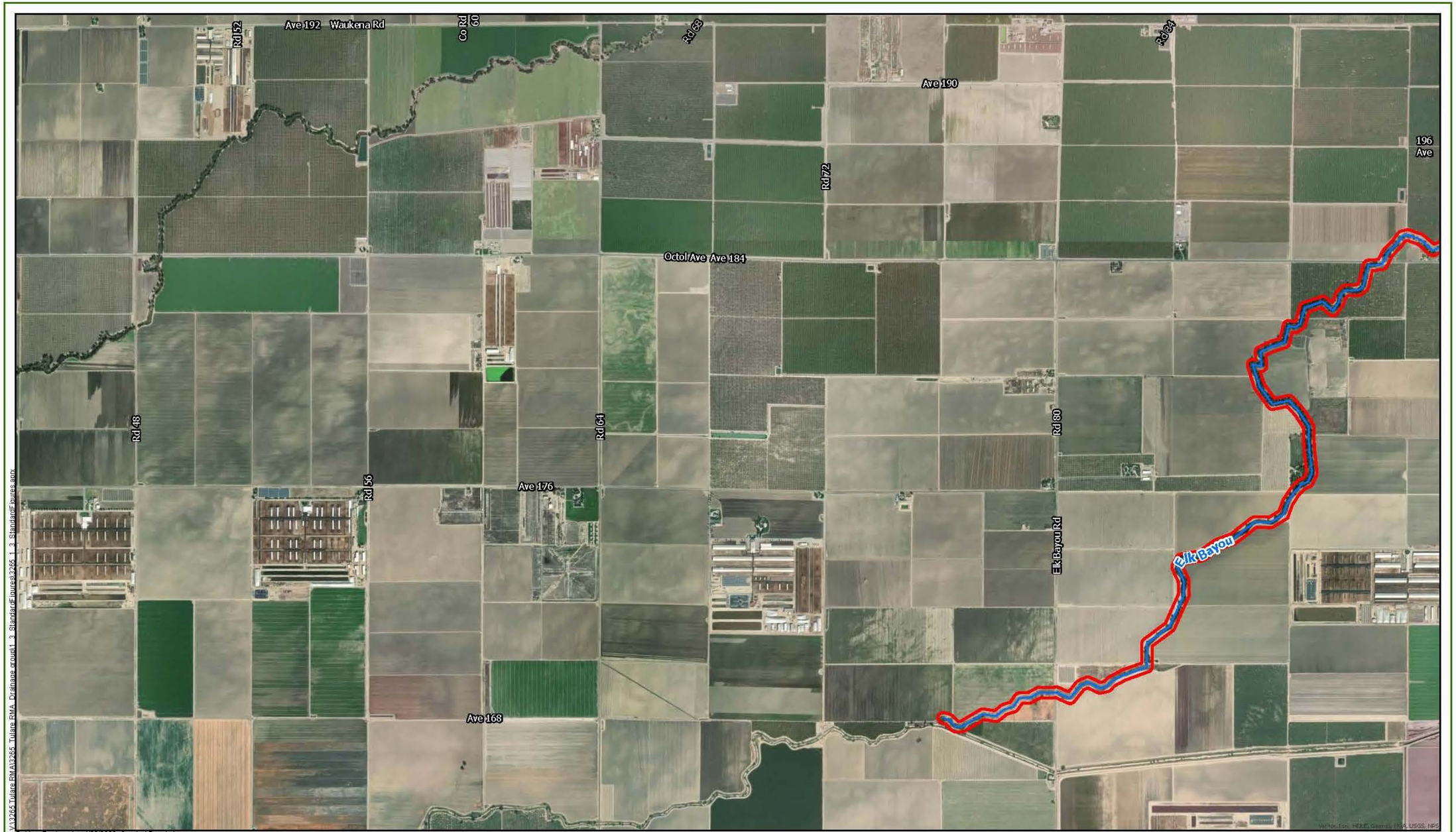
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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks

Figure 2
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Tulare County, California



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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks



Figure 2
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Stream Channel Routine Maintenance Agreement Project
Tulare County, California

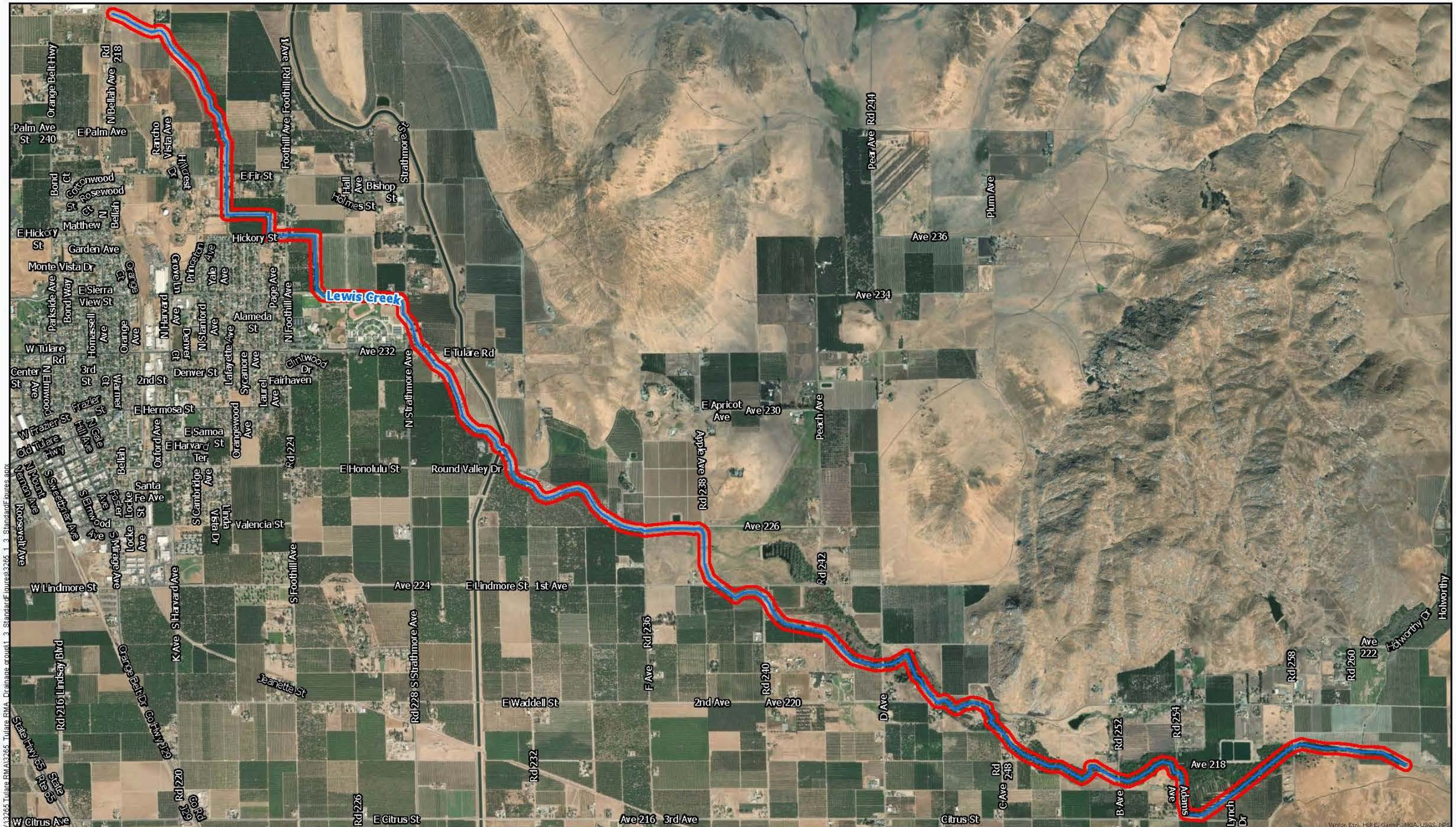


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Tulare County, California



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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks

Figure 2
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Stream Channel Routine Maintenance Agreement Project
Tulare County, California



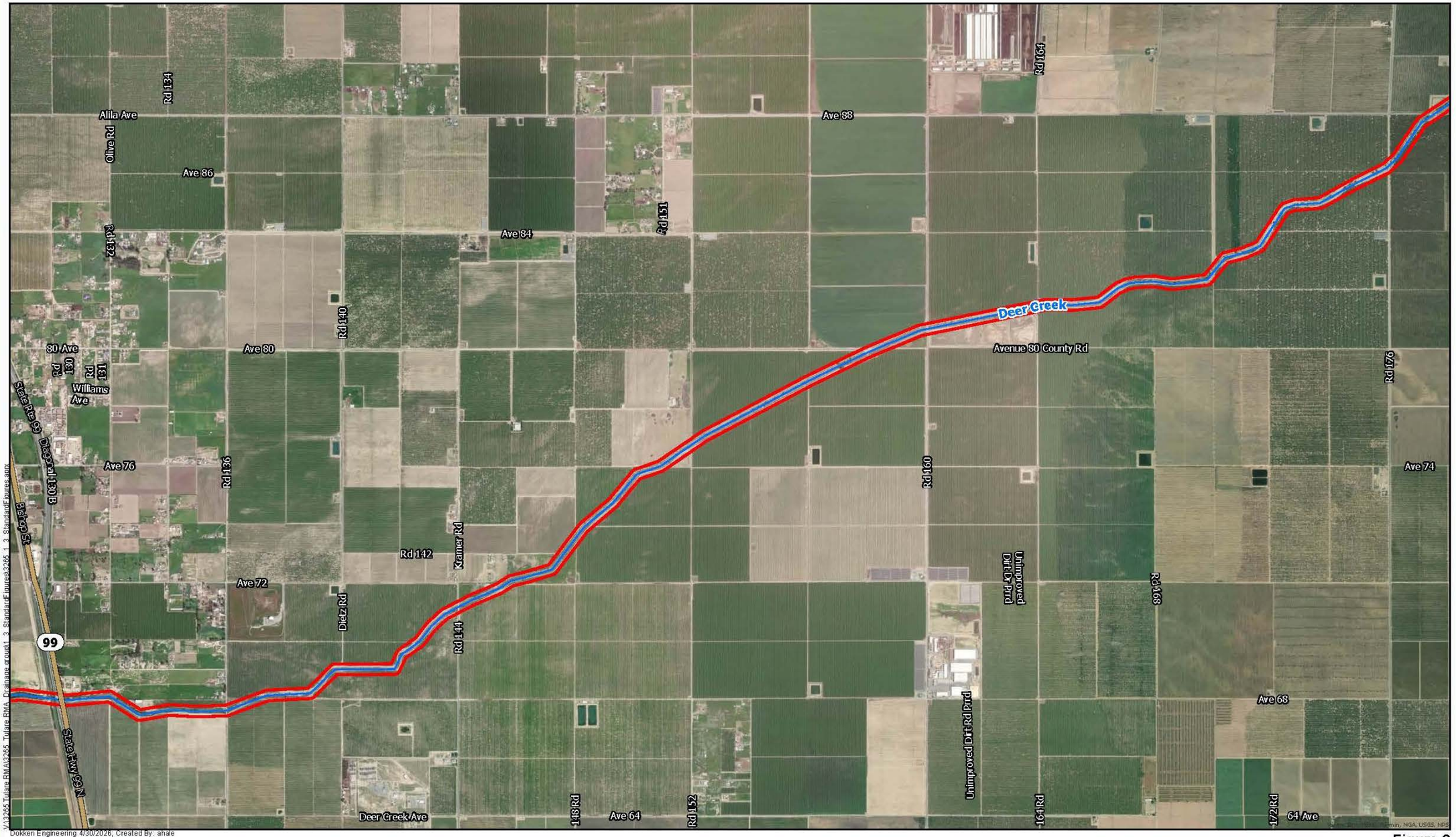
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Stream Channel Routine Maintenance Agreement Project
Tulare County, California



Figure 2
Project Area

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Tulare County, California



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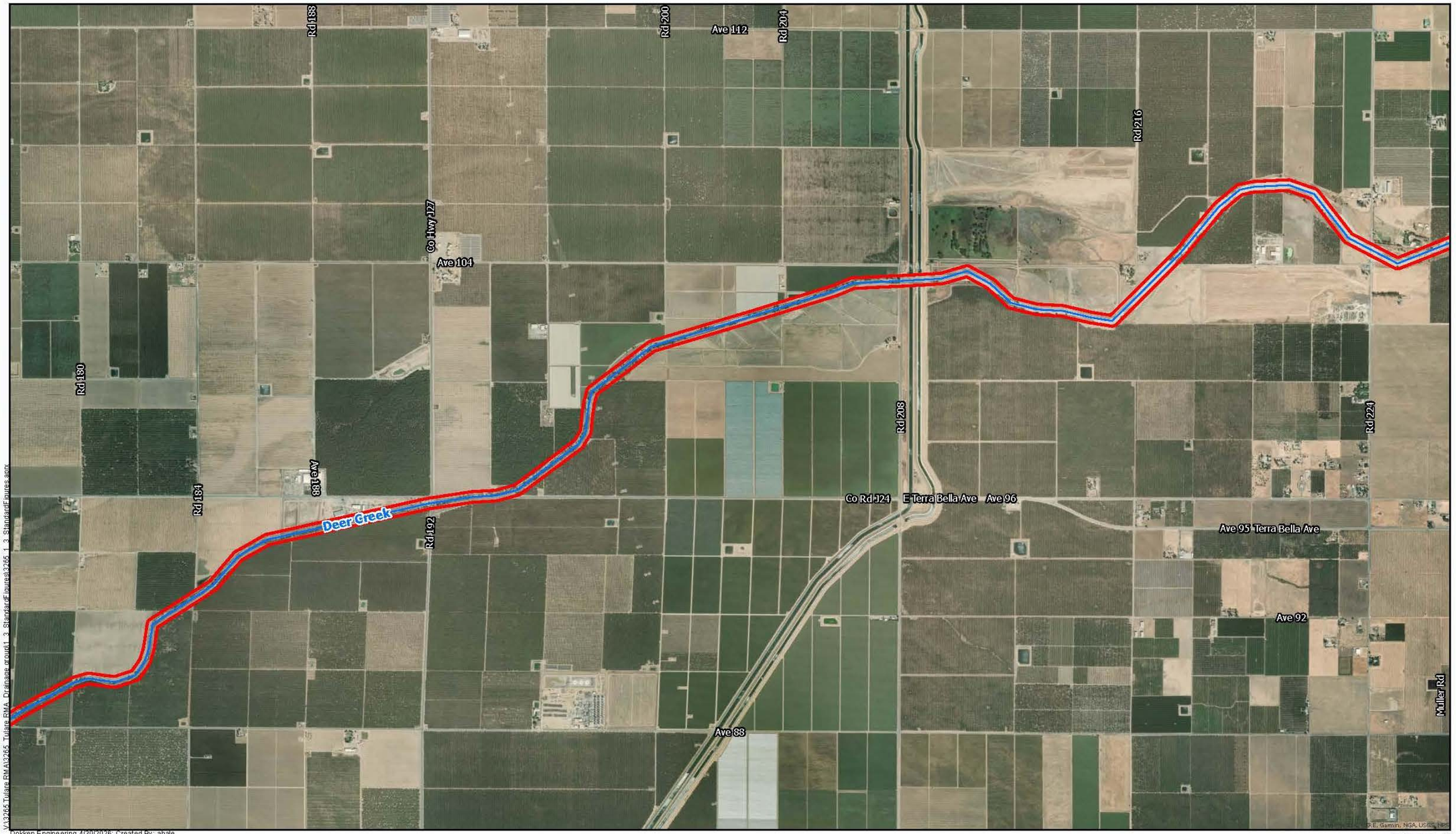
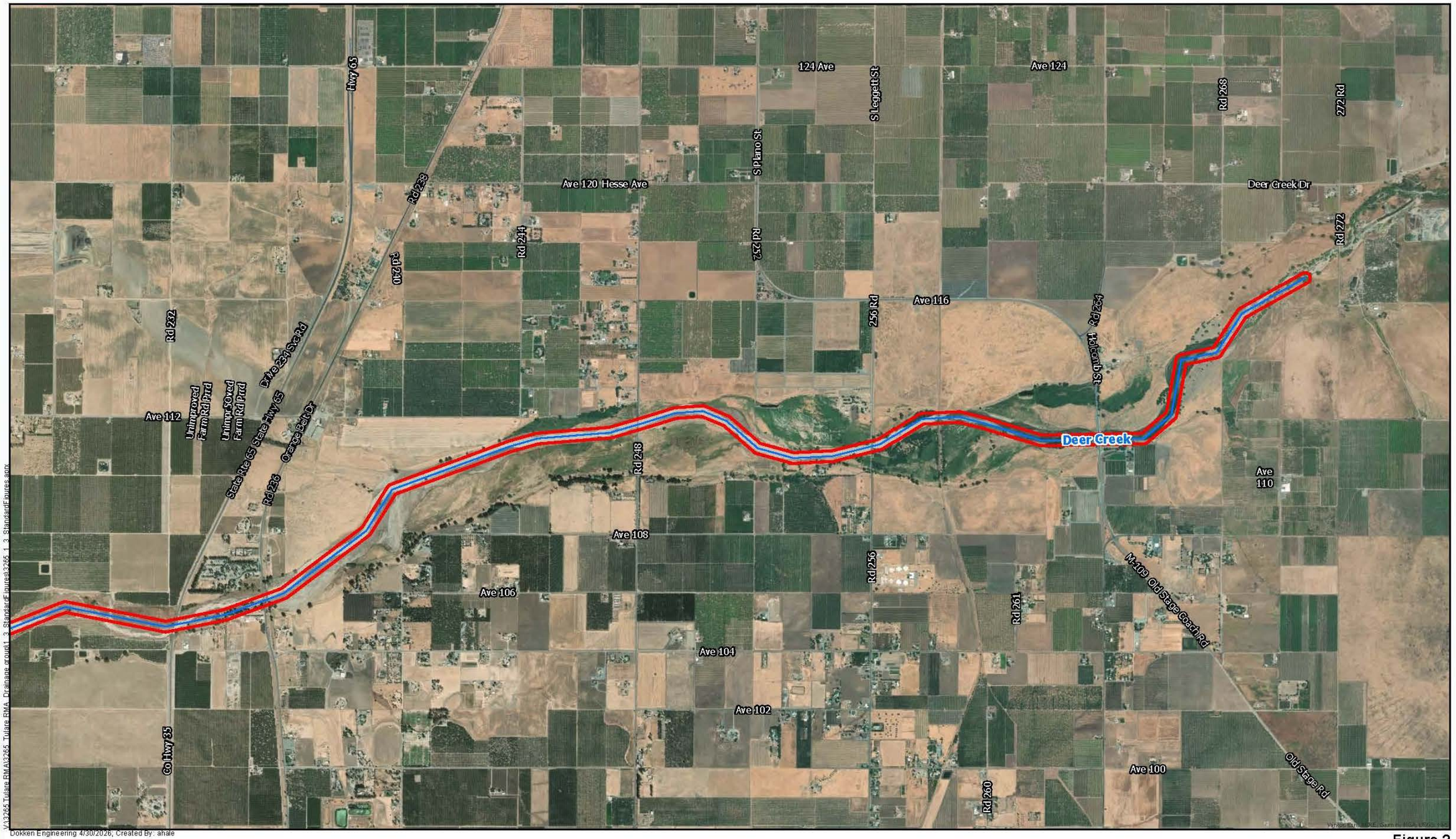


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Tulare County, California



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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks



Figure 2
Project Area

Stream Channel Routine Maintenance Agreement Project
Tulare County, California

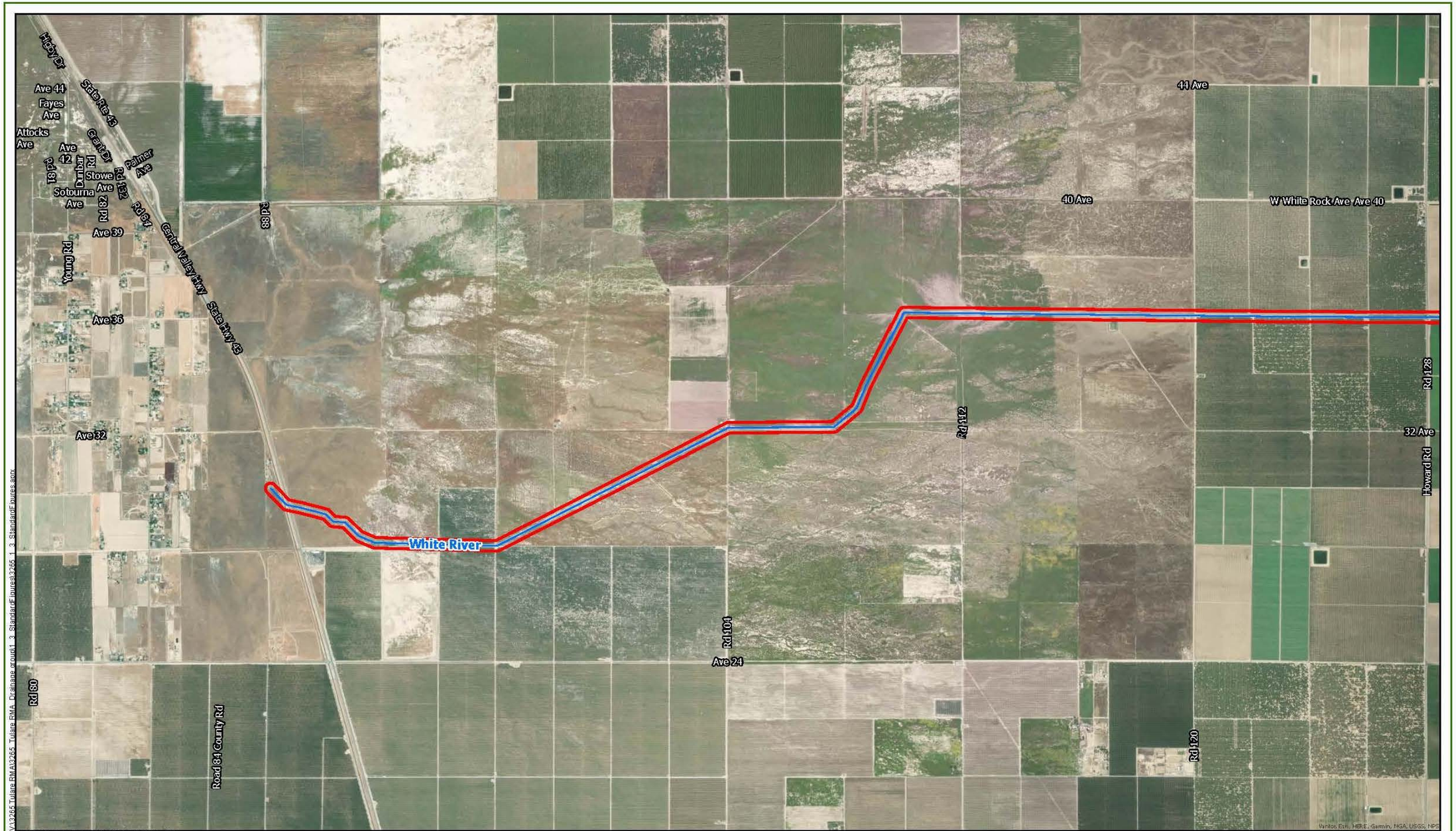
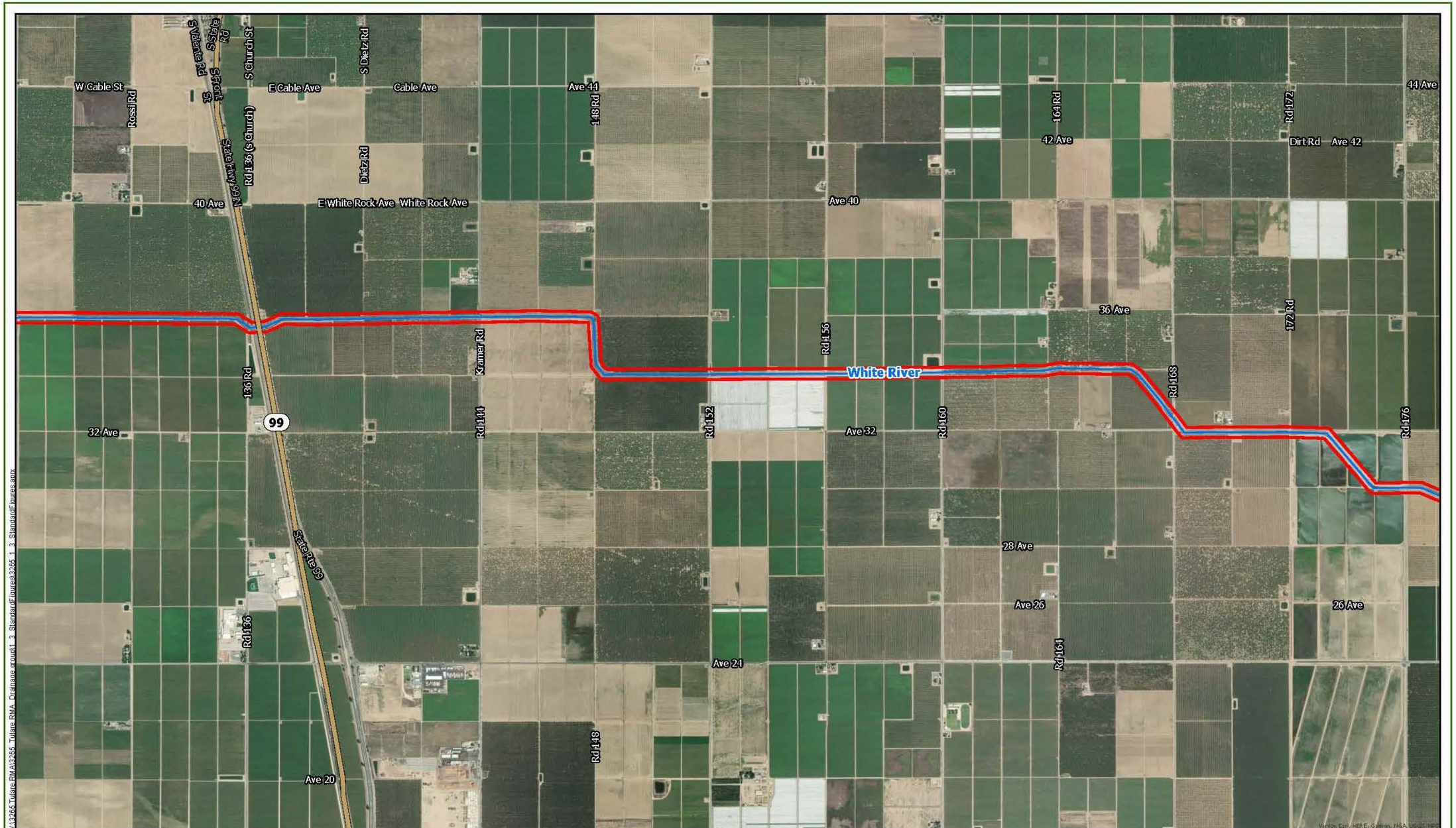


Figure 2
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Project Area (Jurisdictional Featurs within 100 feet of County-Maintained Creeks)

County-Maintained Creeks

Figure 2
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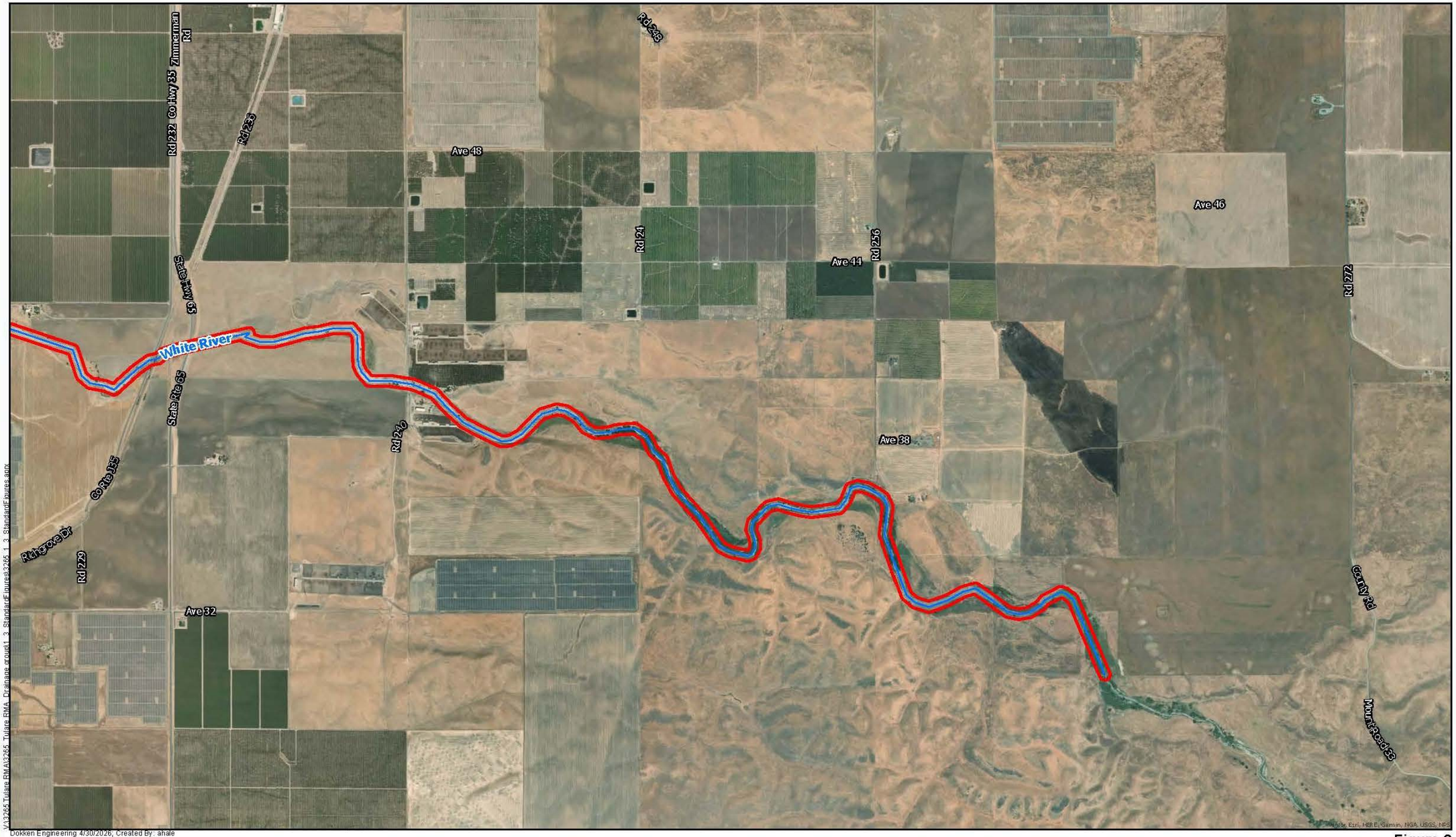


Figure 2
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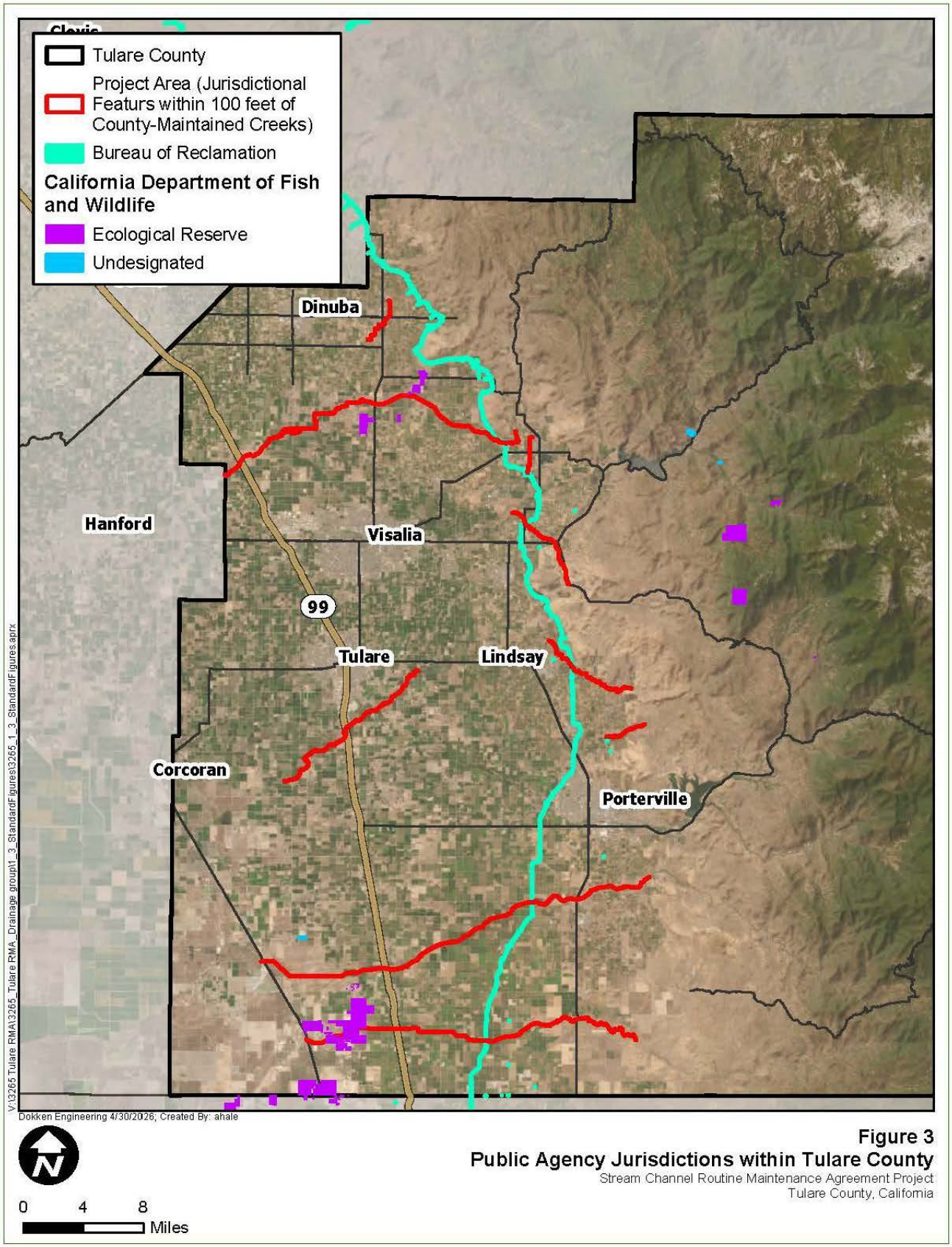


Figure 3
Public Agency Jurisdictions within Tulare County
Stream Channel Routine Maintenance Agreement Project
Tulare County, California

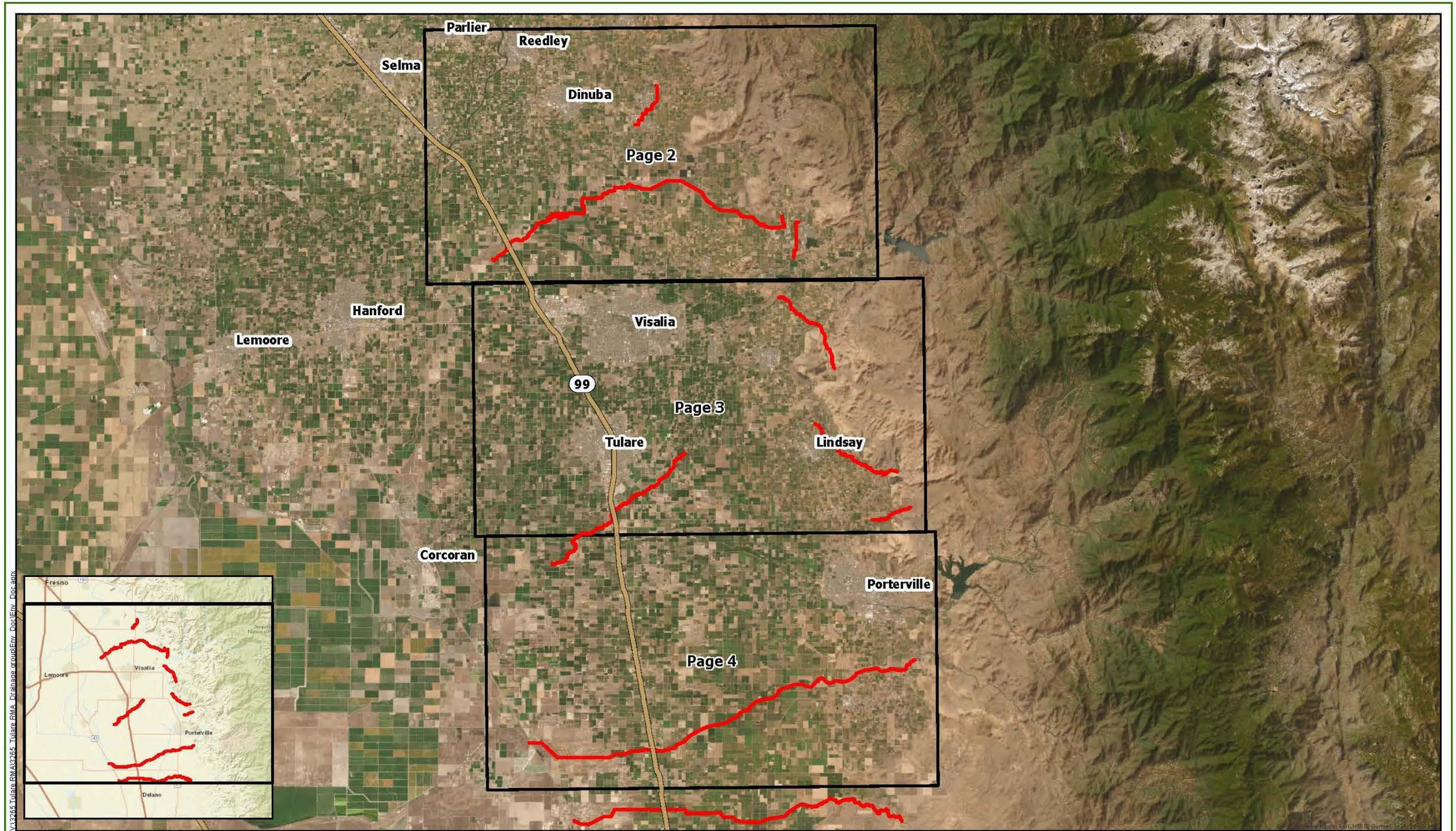
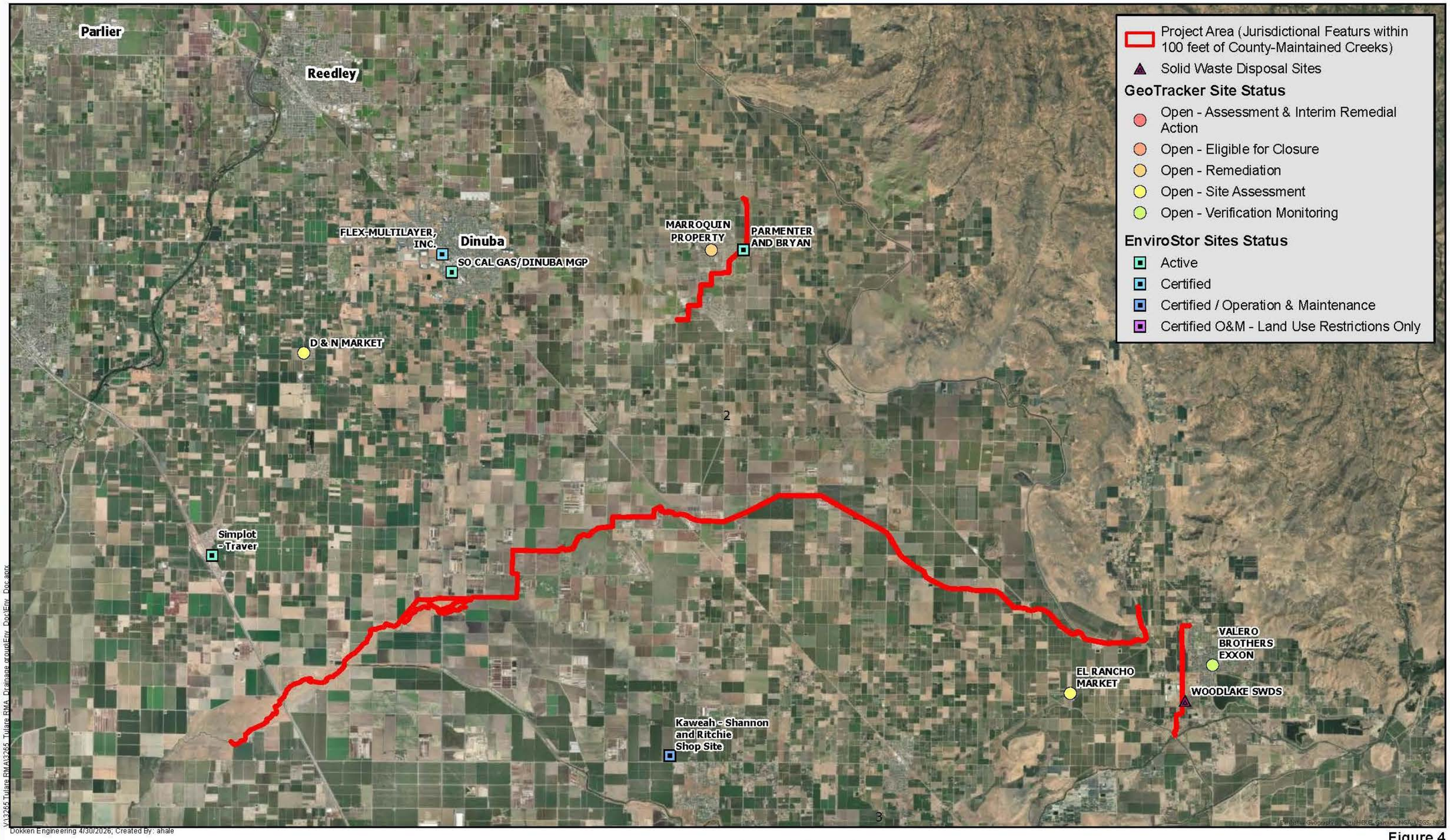


Figure 4
Tulare County Cortese List Sites
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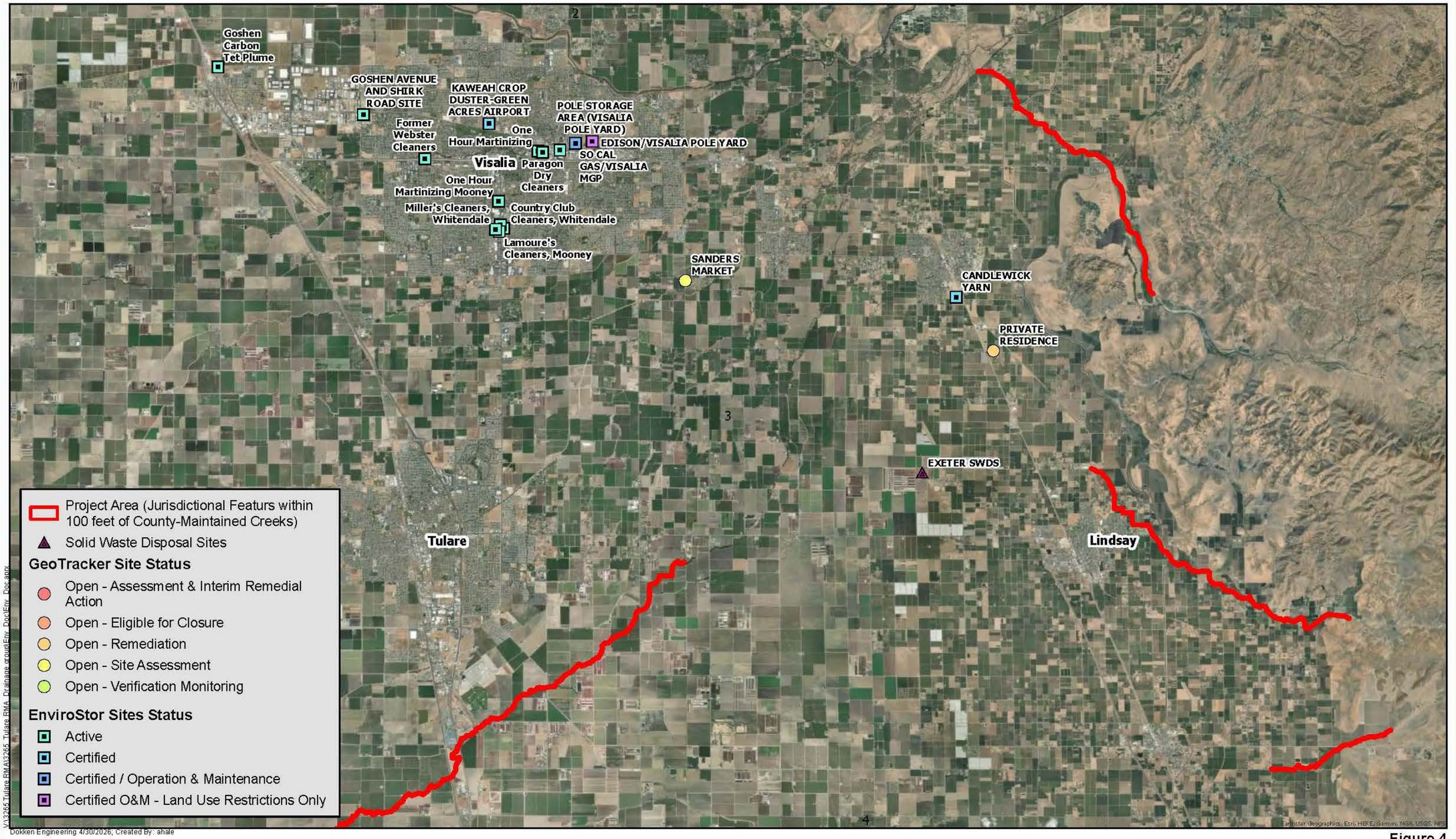


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Figure 4
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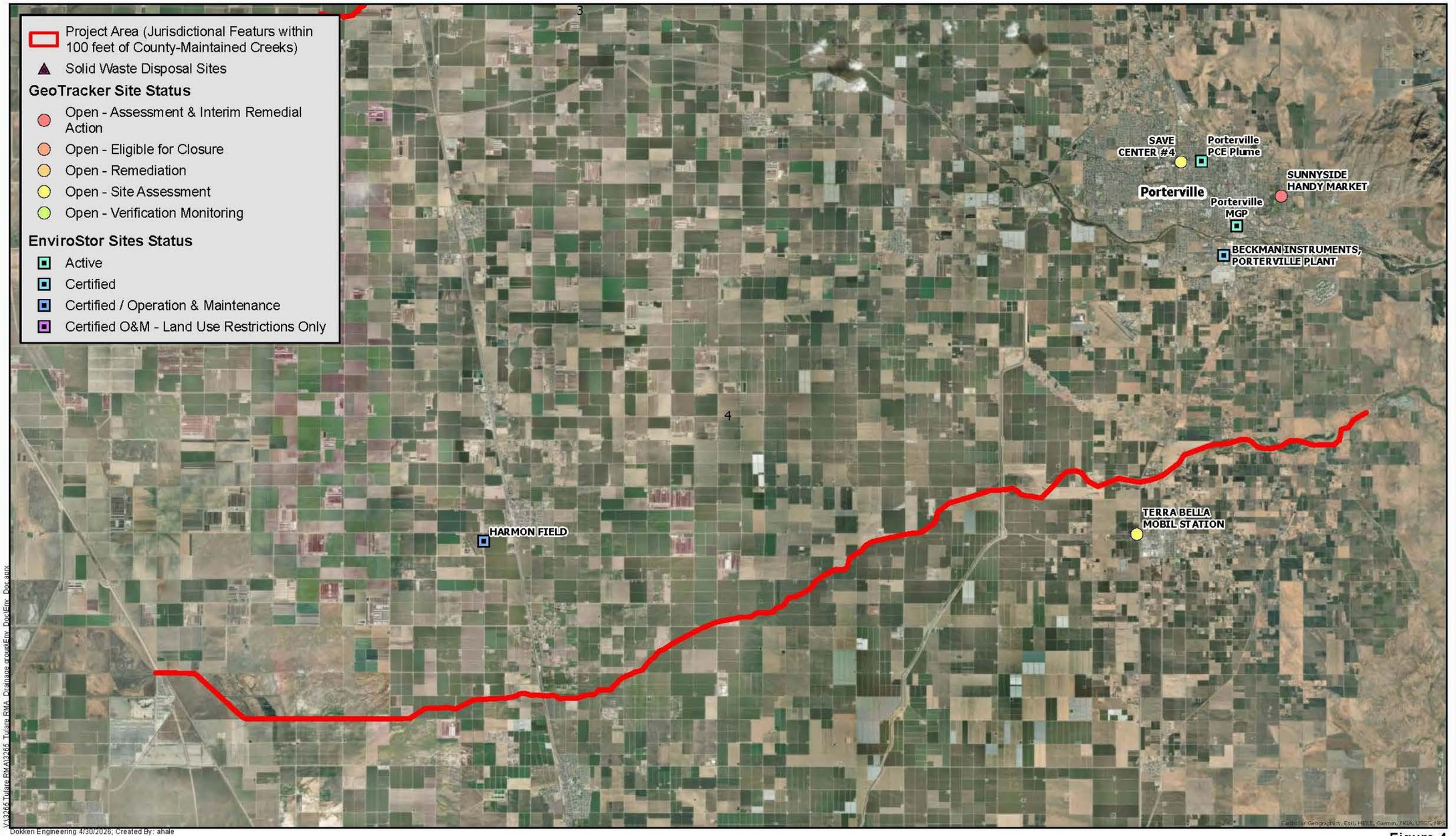


Figure 4
Tulare County Cortese List Sites
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Stream Channel Routine Maintenance Agreement Project
Tulare County, California

ATTACHMENT B: Tulare County Routine Maintenance Agreement Biological Resources Technical Report

Biological Resources Technical Report

Tulare County Routine Maintenance Agreement

Tulare County



Prepared For:

Tulare County Resource Management Agency
5961 South Mooney Boulevard
Visalia, California 93277

Prepared By:

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May 2026

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Acronyms and Abbreviations

amsl	Above mean sea level
BRTR	Biological Resources Technical Report
CCF	Central California Valley
CCF	Central California Foothills
CCTV	Closed Circuit Television
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Tulare County
CTS	California tiger salamander
CWA	Clean Water Act
DPS	Distinct population segment
EO	Executive Order
ESA	Environmentally Sensitive Area
FESA	Federal Endangered Species Act
FP	Fully Protected
FR	Federal Register
FYLF	Foothill yellow-legged frog
HMMP	Habitat Mitigation and Monitoring Program
MBTA	Migratory Bird Treaty Act
MYLF	Southern mountain yellow-legged frog
NMFS	National Marine Fisheries Service
Project	Tulare County Routine Maintenance Agreement
RMA	Routine Maintenance Agreement
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
SWWF	Southwestern willow flycatcher
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VRF	Verification Request Form
WOTUS	Waters of the United States
WS	Western spadefoot

Chapter 1. Introduction

Tulare County (County) proposes to enter into a long-term 12-year Streambed Alteration Agreement with the California Department of Fish and Wildlife (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 throughout the County (Project). 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. The exact limits of CDFW jurisdiction will be determined on a case-by-case basis in consultation with CDFW**.**

The purpose of this Biological Resources Technical Report (BRTR) is to describe the existing biological conditions within the County, evaluate the expected impacts of the proposed routine maintenance work on these resources, and propose measures to avoid or minimize the Project's impacts. The Project area evaluated in this BRTR encompasses all creeks, waterways, and associated riparian corridors and floodplains under CDFW's jurisdiction within 200 feet of County-maintained roads in Tulare County, California. The exact limits of CDFW jurisdiction at individual maintenance project sites will be determined on a project-by-project basis in consultation with CDFW**.** In addition, the Project area includes the County-maintained portions of the following creeks: Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek (**Figure 1. Project Area**, in **Appendix A, Figures**).

1.1. Project Description

The County anticipates completing approximately 20 to 30 maintenance projects a year over the 12-year life of the RMA. Routine maintenance would primarily 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 standard construction equipment, including, but not limited to: water trucks, excavators, backhoes, graders and compactors. The 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 would include the activities described in the following subsections.

1.1.1. Removal, Replacement, or Repair of Facilities

The County would remove, replace, or repair culverts, outfalls, inlets, manholes, above-ground utilities, or other facilities within areas of CDFW jurisdiction. 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 (CCTV) inspections, horizontal directional drilling, jack & bore, electric pole removal/replacement, or 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 requires a large-scale repair and CDFW determines that the activity is not "routine" maintenance, a stand-alone §1600 Streambed Alteration Agreement may be necessary.

1.1.2. 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.

1.1.3. Channel Naturalization

The County may undertake projects to convert existing concrete-lined channels to a more natural state by removing existing revetment. Channel naturalization would likely include some level of revegetation to stabilize the banks and create habitat. Exact methods and locations of channel alignment maintenance activities would be submitted to CDFW for final approval through VRFs.

1.1.4. 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, 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 depending on management objectives and existing conditions.

1.1.5. Silt, Sand, or Sediment Removal

The County would displace or remove (under dry conditions) silt, sand, gravel, or sediment in both lined and unlined channels that could substantially obstruct or redirect water flow, reduce channel capacity, accelerate erosion, or damage facilities. 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 or may not be followed by re-vegetation efforts depending on management objectives and existing conditions.

1.1.6. 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. The County anticipates vegetation control will mostly be completed with chainsaws, string trimmers, or other hand tools. Ride on top or push mowers will also be used to clear out herbaceous growth. Occasionally, a backhoe or small excavator may be necessary to clear out aquatic vegetation or to remove stumps.

The County would cut, trim, or remove the lower branches of large trees to facilitate site inspections, maintain channel capacity, or reduce ladder fuels near developed areas. Tree removals will be limited to what is necessary to maintain flood capacity and public safety.

Much of what the County will be controlling are invasive species that cause problematic blockages in drainage infrastructure including but not limited to giant reed (*Arundo donax*), yellow starthistle (*Centaurea solstitialis*), pampasgrass (*Cortaderia selloana*), Scotch broom (*Cytisus scoparius*), English ivy (*Hedera helix*), tree of heaven (*Alianthus altissima*), and Himalayan blackberry (*Rubus armeniacus*). The County would not remove special status plant populations without CDFW approval. Exact methods and locations of vegetation removal activities would be submitted to CDFW for final approval through VRFs.

1.1.7. Goat/Sheep Grazing

The County may contract for goat/sheep grazing services to aid in thatch management, fuel reduction, and invasive species removal tasks. This would involve contracting a herd to flash graze specific locations for a short period of time. Herds are moved frequently to avoid overgrazing any particular location and they are kept in place using temporary electric fencing. Herds would be left in a paddock for a period of 1 to 5 days depending on vegetation density and the desired amount of vegetation removal and would then be moved to the next area. A portion of this grazed area would be within riparian areas and fall under the RMA.

Goats would not be permitted within the wetted portion of stream channels but would be permitted in adjacent riparian areas under CDFW jurisdiction as well as in dry channels. Goat grazing is particularly useful on steep slopes and other areas where human access is limited or dangerous. 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 to manage soil erosion in critical areas such as outfalls.

1.1.8. 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 for any one VRF. 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. The addition of new revetment will likely require compensatory mitigation to offset the permanent loss of habitat.

1.1.9. 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 from 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.

1.1.10. 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, may be required for non-RMA projects or activities to better determine a site's cultural resource sensitivity. Extend Phase I's 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.

Chapter 2. Existing Conditions

2.1. Project Area

The Project area encompasses all creeks, waterways, and associated riparian corridors and floodplains (defined as 20 feet from the centerline of the creeks and waterways) under CDFW's jurisdiction within 200 feet of County-maintained roads within Tulare County, California. In addition, the Project area includes the County-maintained portions of the following creeks, which have also been buffered by 20 feet from the centerline to encompass the associated riparian corridor: Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek (**Figure 1** in **Appendix A**). The Project area comprises approximately 2,549 acres.

2.2. Physical and Biological Conditions

The County comprises approximately 3.1 million acres. The eastern portion of the County overlaps with the Sierra Nevada mountains, while the western portion includes the San Joaquin valley floor. Elevation within the County ranges from approximately 200 feet above mean sea level (amsl) along the valley floor to approximately 14,505 feet amsl at Mount Whitney, which is the highest point in the contiguous United States (Tulare County 2012).

The majority of development has occurred within the western portion of the County, where much of the flat land within the valley has been converted to agricultural uses, including orchards, cropland, and feed lots. Some natural habitat areas still exist in the valley, including the Pixley National Wildlife Refuge. However, natural areas within the Valley are generally discontinuous and split up by roads and agricultural land. The eastern portion of the County includes the foothills and the Sierra Nevada mountains, much of which is within the Kings Canyon and Sequoia National Parks or the Sequoia National Forest.

2.3. Ecoregions within the County

The geographic variation within the County supports a wide range of vegetation communities and ecosystems. A broad-scale method of classifying landscape types is by ecoregion, which are areas where ecosystems are generally similar. The U.S. Environmental Protection Agency has created a hierarchical system for classifying ecoregions throughout the country (Griffith et al. 2016), which is broken down by four levels. A Roman numeral classification scheme has been adopted for different hierarchical levels of ecoregions, ranging from general regions to more detailed. Level I is the least-detailed level and it splits the continental U.S. into 12 ecoregions. The subsequent levels continue to get more detailed, with Level II splitting the continental U.S. into 25 ecoregions, Level III splitting it into 105 ecoregions, and Level IV splitting it into 967 ecoregions (U.S. Environmental Protection Agency 2026). Level III was selected as the most appropriate hierarchical scale for this analysis because it divides the County into three broad ecosystem types

that largely determine the potential distribution of special-status species. The County overlaps with three of the Level III ecoregions: Central California Valley (CCV), Central California Foothills and Coastal Mountains (CCF), and Sierra Nevada (SN) (**Figure 2, Ecoregions** in **Appendix A**). The general physical and biological conditions within each of these ecoregions are described in the following subsections.

2.3.1. Central California Valley

The CCV ecoregion is characterized by flat, intensively farmed plains with long, hot, dry summers and mild winters. This region was once characterized by extensive prairies, oak savannas, desert grasslands, riparian woodlands, freshwater marshes, and vernal pools; however, over half of the region has been converted to cropland, about three-fourths of which is irrigated.

This ecoregion overlaps the westernmost portion of the County, spanning east from the western edge of the County to the Friant-Kern Canal in the north and the community of Ducor in the south. Within the County, this ecoregion comprises gently sloping alluvial fans and basins. Soils within these areas are mostly fine-textured and poorly drained with a thermic temperature regime and aquic soil moisture regime (Griffith et al. 2016). Soils in this region are generally sandy loams (University of California, Davis [UC Davis] and Natural Resources Conservation District [NRCD] 2026).

This ecoregion is generally mapped as an area of limited habitat connectivity due to extensive development and agricultural land uses (CDFW 2026a).

The CCV ecoregion encompasses approximately 982,300 acres of the County. Approximately 1,878 acres (74%) of the Project area overlaps with the CCV ecoregion.

2.3.2. Central California Foothills and Coastal Mountains

The Central California Foothills and Coastal Mountains ecoregion (CCF) is generally characterized by chaparral and oak woodland vegetation communities, along with some grasslands in low elevations and patches of pine at higher elevations. Natural vegetation includes chamise (*Adenostoma fasciculatum*), mixed oaks (*Quercus sp.*), ceanothus (*Ceanothus sp.*), and foothill pine (*Pinus sabiniana*). This region has a Mediterranean climate of hot, dry summers and cool, moist winters.

This ecoregion overlaps the mid-elevation areas within the central portion of the County. Large portions of this ecoregion are active ranchland and regularly grazed by domestic livestock. Soils within these areas generally have a thermic temperature regime and xeric and aridic moisture regimes (Griffith et al. 2016). Soils in this region are generally rocky outcrops, clay loams, and sandy loams with varying degrees of slope (UC Davis and NRCS 2026).

This ecoregion provides high-quality terrestrial habitat connectivity, as it contains Conservation Planning Linkages and Irreplaceable and Essential Corridors that terrestrial species rely on to

move between habitats within the County and between other counties (CDFW 2026a). The areas of high connectivity value are those that are largely undeveloped.

The CCF ecoregion encompasses approximately 585,500 acres of the County. Approximately 511 acres (20%) of the Project area overlaps with the CCF ecoregion.

2.3.3. Sierra Nevada

Vegetation within the Sierra Nevada ecoregion (SN) generally varies by elevation. Ponderosa pine (*Pinus ponderosa*) and Douglas-fir (*Pseudotsuga menziesii*) are common at the lower elevations. Moving east towards higher elevations, firs and other conifers become more common. The highest elevation areas, including Mount Whiney, are above the timberline.

This ecoregion overlaps the higher elevation areas within the easternmost portion of the County, including Sequoia National Park and the Inyo National Forest. This area is generally composed of granitic rocks. Within the highest elevations, moraines, cirques, and small lakes are common. (Griffith et al. 2016).

This ecoregion is generally mapped as a habitat connection with implementation flexibility. Although the region may be difficult for some terrestrial species to travel due to its steep slopes, sparse vegetation, and limited water availability, other species rely on this contiguous habitat to travel north and south to other suitable habitat areas.. Therefore, this ecoregion provides valuable habitat connectivity.

Soils in this region are generally derived from granitic and metamorphic materials and occur on steep slopes. Rock outcrops, sandy loam, and gravelly loam are common in this ecoregion (UC Davis and NRCS 2026).

The SN ecoregion encompasses approximately 1.5 million acres of the County. Approximately 160 acres (6%) of the Project area overlaps with the SN ecoregion.

2.4. Hydrology

The County is situated within the Tulare Basin watershed, which also overlaps portions of Fresno County, Kings County, and Kern County. The Tulare Basin watershed includes the valley floor alluvial fans of the Kings, Kaweah, Tule, and Kern Rivers that originate from the Sierra Nevada mountains to the east. These four major rivers, as well as a number of lesser streams including Deer Creek and White River, all flow west across the Central Valley and terminate in Tulare Basins' terminal lakes instead of flowing out to the Pacific Ocean (Tulare Basin Watershed Partnership 2026).

Historically, water from the Sierra Nevada would flow into the valley to create broad deltaic fans composed of dozens of channels and sloughs that shifted periodically during flood events. Today, the region receives water from five sources: precipitation, runoff from rivers and streams,

groundwater, State Water Project delivery, and Central Valley Project delivery. Public agencies, water banks, and private landowners closely manage water in the County. Dams occur on all four major rivers. During years of high rainfall, flood control concerns influence water movement; however, in drier years, surface water movement throughout the basin is primarily by gravity flow in natural stream channels and constructed canals or ditches. Pumping occurs in many locations to distribute irrigation water or drain water (Tulare Basin Watershed Partnership 2026).

Portions of the following creeks are managed by the County, as shown in **Figure 1** in **Appendix A**: Antelope Creek, Cottonwood Creek, Cross Creek, Deer Creek, Elk Bayou, Frazier Creek, Lewis Creek, Sand Creek, White River, and Yokohl Creek.

2.5. Special-Status Species

Special-status plant and wildlife species are those that meet one or more of the following criteria: (1) have been listed or proposed for listing as threatened or endangered under the FESA; (2) have been listed or are candidates for listing under the CESA, or are protected under other state regulations; (3) have been designated as a Species of Special Concern (SSC) or Fully Protected (FP) by CDFW; and (4) have been assigned a status of 1, 2, or 3 by the California Native Plant Society (CNPS)[1]

Online databases from USFWS and CDFW were queried to produce a list of special-status species that have the potential to occur within the County (USFWS 2026 and CDFW 2026b). The CNPS Rare Plant Inventory database was queried for a list of special-status plants with the potential to occur in the types of habitat that may occur within the RMA Project areas. The following habitat types were included in the CNPS query: bogs and fens, marshes and swamps, meadows and seeps, riparian forest, riparian scrub, riparian woodland, valley and foothill grassland, and vernal pools.

The County does not support marine or anadromous species; therefore, there are no species under the jurisdiction of the NMFS that have the potential to occur in the Project area or otherwise be affected by the Project.

129 special-status species were returned by database queries described above (**Appendix B. Species Lists**). Of these 129 species, 73 were determined to have some potential to occur within the creeks, waterways, and associated riparian corridors and floodplains that will be affected by maintenance activities under the RMA. **Appendix C. Potential for Special-Status Species to Occur in the Project Area** provides the rationale for those species that were considered but dismissed from further analysis due to a lack of suitable habitat within the expected RMA implementation

[1]CNPS rank definitions are provided below:
1: Plant is rare and endangered in California and throughout its range
2: Plant is rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plant about which needs more information; a review list.

areas. The following table lists the regulatory status and habitat requirements for each special-status species identified as having the potential to occur within the CDFW jurisdictional areas within Tulare County (**Table 1. Special-Status Species Potentially Occurring in Tulare County Routine Maintenance Areas**).

Table 1. Special-Status Species Potentially Occurring in Tulare County Routine Maintenance Areas

Species Name	Status		Habitat Requirements	Ecoregion
AMPHIBIANS (4)				
California tiger salamander – Central California distinct population segment (DPS) *Ambystoma californiense*	Federal: State: CDFW:	T T WL	Vernal pools, seasonal ponds, grassland, and oak savannah plant communities. Requires terrestrial habitat and temporary ponds for breeding.	Central California Valley (CCV)
Foothill yellow-legged frog – South Sierra DPS *Rana boylii*	Federal: State: CDFW:	E E -	Perennial shallow streams and riffles with rocky substrate and open, sunny banks. Surrounding upland habitats may include chaparral and woodland forests.	Central California Foothills (CCF)
Southern mountain yellow-legged frog *Rana muscosa*	Federal State: CDFW:	E E WL	Restricted to mid- to high-elevation aquatic habitat. Alpine lakes with open shorelines, grassy or muddy margins, and a depth greater than 2.5 meters.	Sierra Nevada (SN)
Western spadefoot *Spea hammondii*	Federal: State: CDFW:	PT - SSC	Open areas with sandy or gravelly soils near vernal/temporary pools formed by heavy winter rains for reproduction.	CCV and CCF
BIRDS (11)				
American goshawk *Astur atricapillus*	Federal: State: CDFW:	- - SSC	Nest in mature and old-growth forests with more than 60% closed canopy. Foraging habitat includes riparian corridors and open habitats such as the sagebrush steppes.	SN
Bald eagle *Haliaeetus leucocephalus*	Federal: State: CDFW:	D E FP	Lakes, rivers, rangelands, and coastal wetlands for nesting and wintering. Nests in large, old growth, or dominant live trees with open branches.	SN
Burrowing owl *Athene cunicularia*	Federal: State: CDFW:	- CE SSC	Arid, open areas with sparse vegetation cover, such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats.	CCV
California spotted owl *Strix occidentalis occidentalis*	Federal: State: CDFW:	PT - SSC	Dense, old-growth, multilayered mixed conifer, redwood, and Douglas-fir, and oak-conifer habitat. Prefers nesting in trees near water sources.	SN
Golden eagle *Aquila chrysaetos*	Federal: State: CDFW:	- - FP	Rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, and open mountain slopes.	CCF and SN
Loggerhead shrike *Lanius ludovicianus*	Federal: State:	- -	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	CCV

Species Name	Status		Habitat Requirements	Ecoregion
	CDFW:	SSC		
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: State: CDFW:	E E -	Riparian habitats with dense vegetation in proximity to open water or saturated soil. Occurs at elevations over 8,000 feet.	SN
Swainson's hawk *Buteo swainsoni*	Federal: State: CDFW:	- T -	Grasslands, riparian areas, and agricultural or ranch lands with groves or lines of trees.	CCV
Tricolored blackbird *Agelaius tricolor*	Federal: State: CDFW:	- T -	Freshwater marsh, swamp, and wetland communities. Requires desne cattails, tules, willow, or other tall/dense vegetation.	CCV, CCF
Western snowy plover *Anarhynchus nivosus nivosus*	Federal: State: CDFW:	- - SSC	Sandy or gravelly beaches along the coast, estuarine salt ponds, and evaporation ponds in agricultural areas.	CCV
Willow flycatcher *Empidonax traillii*	Federal: State: CDFW:	- E -	Dense riparian systems or willow thickets in proximity to wetlands, ponds, or backwaters.	CCV, CCF, and SN
FISH (2)				
California golden trout *Oncorhynchus mykiss aguabonita*	Federal: State: CDFW:	- - SSC	Only occurs in the Kern River drainage.	SN
Kern River rainbow trout *Oncorhynchus mykiss gilberti*	Federal: State: CDFW:	- - SSC	Only occurs in the Kern River and tributaries, from Lake Isabella upstream to the headwaters.	SN
INVERTEBRATES (2)				
Crotch's bumble bee *Bombus crotchii*	Federal: State: CDFW:	- CE -	Grassland, shrubland, and chaparral habitats with diverse floral resources and loose soils, mulch, rock piles, or other nesting habitat.	CCV and CCF
Monarch butterfly *Danaus plexippus*	Federal: State: CDFW:	PT - -	Fields, meadows, weedy areas, marshes, and roadsides with diverse floral resources and proximity to their obligate host plants in the *Asclepias* genus.	CCV, CCF, and SN
MAMMALS (10)				
American badger *Taxidea taxus*	Federal: State: CDFW:	- - SSC	Forest glades, meadows, marshes, brushy areas, hot deserts, and mountain meadows with friable soils.	CCV, CCF, and SN
Fisher – southern Sierra Nevada evolutionarily significant unit (ESU) *Pekania pennanti*	Federal: State: CDFW:	E - SSC	Dense understory riparian and emergent mash vegetation that occurs alongside canals and other bodies of water.	SN
Pallid bat *Antrozous pallidus*	Federal: State: CDFW:	- - SSC	Deserts, grasslands, shrublands, woodlands, and forests. Roosts in caves, crevices, hollow trees, bridges, and buildings.	CCV and CCF

Species Name	Status		Habitat Requirements	Ecoregion
Ringtail *Bassariscus astusus*	Federal: State: CDFW:	- - FP	Chaparral, rocky hillsides, and riparian areas. Dens in rock crevices, boulder piles, or underground cavities.	SN
San Joaquin kit fox *Vulpes macrotis mutica*	Federal: State: CDFW:	E T -	Open, level (less than 5 percent slopes) alkali scrub/shrub and arid grassland communities with scattered shrubby vegetation.	CCV
Sierra Nevada mountain beaver *Aplodontia rufa californica*	Federal: State: CDFW:	- - SSC	High mountain peaks with forested areas, including coniferous and deciduous forests, in close proximity to water. Requires deep soils for burrowing.	SN
Spotted bat *Euderma maculatum*	Federal: State: CDFW:	- - SSC	Grasslands, mixed conifer forests, marshes, meadows, and riparian zones. Roosts in cliff crevices and caves.	SN
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	Federal: State: CDFW:	E E -	Chenopod scrub, saltbrush scrub and sink scrub in the Tulare lake basin. Requires friable soils away from seasonal flooding.	CCV
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: State: CDFW:	- - SSC	Caves, mines tunnels, buildings or man-made structures for day and night roosts.	CCV, CCF
Western mastiff bat *Eumops perotis californicus*	Federal: State: CDFW:	- - SSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral.	CCV, CCF
REPTILES (6)				
Bakersfield legless lizard *Anniella grinnelli*	Federal: State: CDFW:	- - SSC	Moist, loose soils with plant cover. Habitat includes pine-oak woodlands, desert scrubs, sandy washes, and streams.	CCV
Blunt-nosed leopard lizard *Gambelia sila*	Federal: State: CDFW:	E E FP	Alkali flats, arroyos, canyons, and washes with shrubby vegetation in the San Joaquin Valley. Shrubs should be large to provide thermoregulation/shelter but should be dispersed sparsely throughout the landscape.	CCV
Coast horned lizard *Phrynosoma blainvillii*	Federal: State: CDFW:	- - SSC	Valley-foothill hardwood, conifer forest, riparian, pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes or floodplains.	CCV
Northern California legless lizard *Annellia pulchra*	Federal: State: CDFW:	- - SSC	Moist, loose soils with plant cover. Habitat includes pine-oak woodlands, desert scrubs, sandy washes, and streams.	CCV and CCF
Northwestern pond turtle *Emys marmorata*	Federal: State: CDFW:	PT - SSC	Ponds, lakes, rivers, streams, irrigation ditches with aquatic vegetation, and other similar aquatic habitat in proximity to upland habitat including grasslands, woodland, and forests.	CCF
Southern rubber boa *Charina bottae umbratical*	Federal: State:	- T	Loose soils or decaying vegetation for burrowing. Usually found near streams and meadows.	SN

Species Name	Status		Habitat Requirements	Ecoregion
	CDFW:	-		
PLANTS (38)				
Alkali mariposa lily *Calochortus striatus*	Federal: State: CNPS:	- - 1B.2	Alkaline and mesic soils within meadows and seeps in chaparral. Flowers April-June (230-5,200 feet).	CCV and CCF
Alkali-sink goldfields Lasthenia chrysantha	Federal: State: CNPS:	- - 1B.1	Alkali sinks, valley grassland, vernal pools, saline flats, and wetland-riparian areas. Blooms February to April (<0-655 feet)	CCV
American manna grass *Glyceria grandis*	Federal: State: CNPS:	- - 2B.3	Wetlands, riparian habitats, streambanks, lake-margins, meadows, or bogs. Flowers June-August (3,480-6,200 feet).	CCF and SN
Blandow's bog moss *Elodium blandowii*	Federal: State: CNPS:	- - 2B.2	Damp soils in meadows, seeps, and subalpine coniferous forest communities (6,100-8,900 feet).	SN
Bolander's woodreed *Cinna bolanderi*	Federal: State: CNPS:	- - 1B.2	Mesic soils and stream sides of meadows, seeps, and upper montane coniferous forest communities. Flowers July-September (5,500-8,000 feet).	SN
Broad-nerved hump moss *Meesia uliginosa*	Federal: State: CNPS:	- - 2B.2	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).	SN
California satintail *Imperata brevifolia*	Federal: State: CNPS:	 2B.1	Mesic, often alkali, soils within springs, meadows, streambanks, floodplain, chaparral, coastal scrub, and riparian scrub communities. Blooms September-May (0-4,000 feet).	CCV and CCF
Cut-leaf checkerbloom *Sidalcea multifida*	Federal: State: CNPS:	- - 2B.3	Meadows and seeps in Great Basin scrub, lower montane coniferous forest, and pinyon/juniper woodland communities. Flowers May-September (5,750-9,200 feet).	SN
Cylindrical trichodon *Trichodon cylindricus*	Federal: State: CNPS:	- - 2B.2	Acidic soils near stream banks, rivers, or in seasonally flooded areas at the edges of lakes and reservoirs. Grows from 165-6770 feet.	SN
Earlimart orache *Atriplex cordulata var. erecticaulis*	Federal: State: CNPS:	- - 1B.2	Saline or alkaline soils of valley and foothill grassland communities. Flowers August-September (0-330 feet).	CCV
Field ivesia *Ivesia campestris*	Federal: State: CNPS:	- - 1B.2	Meadows and seeps, subalpine coniferous forest, and upper montane coniferous forest communities. Flowers May-August (6,500-11,200 feet).	SN
Grey-leaved violet *Viola pinetorum ssp. grisea*	Federal: State: CNPS:	- - 1B.2	Meadows and seeps, red fir forest, lodgepole forest, and subalpine and upper montane coniferous forest. Flowers April-July (4,920-11,155 feet).	SN

Species Name	Status		Habitat Requirements	Ecoregion
Hoover's spurge *Euphorbia hooveri*	Federal: State: CNPS:	T 1B.2	Vernal pools, valley grasslands, freshwater wetlands, and wetland-riparian communities. Blooms from July-October (80-820 feet).	CCV
Kaweah brodiaea *Brodiaea insignis*	Federal: State: CNPS:	- E 1B.2	Granitic or clay soils within cismontane woodland, valley and foothill grassland, and meadows & seep communities. Known only from the Tule and Kaweah River drainages. Flowers April-June (500-4,600 feet).	CCF and SN
Kaweah fawn lily *Erythronium pusaterii*	Federal: State: CNPS:	- - 1B.3	Subalpine forest communities. Flowers May-July (5,970-8,270 feet).	SN
Keck's checker-mallow *Sidalcea keckii*	Federal: State: CNPS:	E - 1B.2	Serpentinite and clay soils on grassy slopes within cismontane woodland, valley and foothill grassland communities. Flowers April-May (250-2,130 feet).	CCF
Kern River daisy *Erigeron multiceps*	Federal: State: CNPS:	- - 1B.2	meadows, seeps, and openings in upper montane coniferous forest. Flowers June-September (6,365-8,400 feet)	SN
Lesser saltscale *Atriplex minuscula*	Federal: State: CNPS:	- - 1B.1	Sandy, alkaline soils of chenopod scrub, valley and foothill grassland, and playas communities. Flowers May-October (0-660 feet).	CCV
Mojave tarplant *Deinandra mohavensis*	Federal: State: CNPS:	- E 1B.3	Mesic chaparral, coastal scrub, riparian scrub, and intermittent creek communities. Flowers May-January (2,100-5,250 feet).	CCF and SN
Mountain bent grass *Agrostis humilis*	Federal: State: CNPS:	- - 2B.3	Alpine boulder and rock fields, meadows and seeps and subalpine coniferous forests. Flowers July-August (4,920-10,990 feet).	SN
Mouse buckwheat *Eriogonum nudum var. murinum*	Federal: State: CNPS:	- - 1B.2	Sandy soils of chaparral, cismontane woodland and valley and foothill grassland communities. Flowers June-October (1,200-3,700 feet).	CCF
Northern meadow sedge *Carex praticola*	Federal: State: CNPS:	- - 2B.2	Mesic meadows and seeps. Blooms May-July (0-10,500 feet).	SN
Piute Mountains navarretia *Navarretia setiloba*	Federal: State: CNPS:	- - 1B.1	Cismontane woodland, pinyon/juniper woodland, and valley and foothill grassland communities. Flowers April-July (940-6,900 feet).	CCF
Prairie wedge grass *Sphenopholis obtusata*	Federal: State: CNPS:	- - 2B.2	Wet meadows, seeps, stream banks, ponds, and mesic cismontane woodland communities. Flowers April-June (790-9,400 feet).	SN
Recurved larkspur *Delphinium recurvatum*	Federal: State: CNPS:	- - 1B.2	Poorly drained, fine, alkaline soils in scrub, cismontane woodland, and grassland communities. Flowers March-June (10-2,600 feet).	CCV and CCF
San Joaquin adobe sunburst	Federal:	T	Adobe and clay microhabitat of cismontane woodland and valley and foothill grassland	CCV

Species Name	Status		Habitat Requirements	Ecoregion
Pseudobahia personii	State: CNPS:	E 1B.1	communities. Flowers February-April (300-3,000 feet).	
San Joaquin Valley Orcutt grass *Orcuttia inaequalis*	Federal: State: CNPS:	T E 1B.1	Vernal pools of valley grassland, freshwater wetlands, and wetland-riparian communities. Flowers April-September (30-2,600 feet).	CCV
Sanford's arrowhead *Sagittaria sanfordii*	Federal: State: CNPS:	- - 1B.2	Freshwater marshes, swamps, ponds, and ditches. Flowers May to October (0–2,130 feet).	CCV
Scalloped moonwort *Botrychium crenulatum*	Federal: State: CNPS:	- - 2B.2	Wetlands, meadows, freshwater-marsh, bogs and fens, and yellow pine forest communities. Blooms June-September (4,900-11,900 feet.).	SN
Shirley Meadows star-tulip *Calochortus westonii*	Federal: State: CNPS:	- - 1B.2	Upland forest, lower montane coniferous forest, and meadows and seeps communities. Flowers May-June (4,900-6,900 feet).	SN
Springville clarkia *Clarkia springvillensis*	Federal: State: CNPS:	T E 1B.2	Chaparral, cismontane woodland, and valley and foothill grassland communities. Flowers March-July (800-4,000 feet).	CCF and SN
Spiny-sepaled button-celery *Eryngium pusaterii*	Federal: State: CNPS:	- - 1B.2	Roadside ditches, depressions, vernal pools, swales, and valley and foothill grassland communities. Flowers April-June (260-3,200 feet).	CCV and CCF
Striped adobe-lily *Fritillaria striata*	Federal: State: CNPS:	- T 1B.1	Clay soils of cismontane woodland and valley and foothill grassland communities. Flowers February-April (440-4,775 feet).	CCV and CCF
Subtle orache *Atriplex subtilis*	Federal: State: CNPS:	- - 1B.2	Saline depressions of valley and foothill grassland communities. Flowers June-October (130-330 feet).	CCV
Tracy's eriastrum *Eriastrum tracyi*	Federal: State: CNPS:	- Rare 3.2	Chaparral, cismontane woodland, and valley and foothill grassland communities. Blooms May-July, (1,030-5,840 feet).	SN
Watershield *Brasenia schreberi*	Federal: State: CNPS:	- - 2B.3	Ponds, slow streams, and freshwater marsh and swamp communities. Flowers June-September (100-7,200 feet).	CCV, CCF, and SN
Winter's sunflower *Helianthus winteri*	Federal: State: CNPS:	- - 1B.2	Steep, south-facing slopes in granitic, often rocky soils. Often found along roadsides. Blooms year-round (410-1,510 feet).	CCV and CCF
Yosemite popcornflower *Plagiobothrys torreyi var. torreyi*	Federal: State: CNPS:	- - 1B.2	Lower montane coniferous forest and meadows and seeps. Blooms April-June (3935-4495 feet).	SN
Key: CCV = Central California Valley; CCF = Central California Foothills; CE = Candidate Endangered; E = Endangered; FP = Fully Protected; PT = Proposed Threatened; R = Rare; S = Sensitive; SN = Sierra Nevada; SSC = Species of Special Concern; T = Threatened, WL = Watch list				

Chapter 3. Project Impacts

3.1. Habitat Impacts

Because the Project area is defined as the California Department of Fish and Wildlife (CDFW) jurisdictional areas—specifically creeks, waterways, riparian corridors, and associated floodplain habitats—located within 200 feet of County-maintained roads, the primary habitat type anticipated to be affected by the Project is channel and riparian habitat. The level of disturbance of these habitat types varies throughout the County; generally, the areas within the CCV ecoregion are the most developed and the areas within the SN ecoregion are the least developed.

The Project may result in temporary and/or permanent impacts on wetlands, riparian vegetation, and/or stream channels. Limited impacts may also occur on upland habitats, such as grassland and woodland habitats, if they are directly adjacent to channels and riparian corridors.

For this RMA, temporary and permanent impacts are identified only where they result in a measurable change to the ecological condition relative to the established baseline, whether in the short term or long term. For this evaluation, "baseline conditions" are defined as the ecological state of the site at the time this BRTR is approved. Under this definition, routine maintenance activities conducted on a regular cycle (e.g., annually or biennially) that are intended to preserve existing ecological conditions are not considered temporary or permanent impacts. For example, periodic vegetation trimming or thinning that maintains current habitat structure and composition is excluded from the following impact quantification, as vegetation is expected to regenerate within approximately one year, and habitat function remains consistent with baseline conditions.

3.1.1. Evaluation and Quantification of Impacts

3.1.1.1. Temporary Impacts

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; trash and obstruction removals (including beaver dams and flood-deposited woody and herbaceous vegetation); and the removal of a single tree for flood control or public health and safety reasons from an otherwise healthy riparian area. 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.

Between 240 and 360 routine maintenance projects are expected to be conducted over the 12-year duration of the RMA (i.e., approximately 20 to 30 projects per year). The majority of projects conducted under the RMA are expected to have very small footprints based on the nature of the proposed work (described in Section 1.1). It is assumed that a typical project may have an average of 0.05 acres of temporary impacts on aquatic habitats, and 0.05 acres of temporary impacts on the adjacent riparian habitats.

For this evaluation, it is assumed that the Project would result in approximately 18 acres of temporary impacts on stream channels and 18 acres of temporary impacts on riparian habitats, for a total of 36.00 acres of temporary impacts on natural or moderately disturbed habitats over the 12-year duration of the Project.

3.1.1.2. Permanent Impacts

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 and minor erosion control work as described in the project description. Such permanent impacts require compensatory mitigation.

Permanent impacts are expected to be less frequent than temporary impacts and only occur on approximately 5-10 projects each year. The size of permanent impacts from individual maintenance projects is expected to be an average of 0.05 acres on stream channels and 0.05 acres on the adjacent riparian habitats.

As a result, it is estimated that the Project would result in a total of 6.00 acres of permanent impacts on stream channels and other aquatic habitats and a total of 6.00 acres of permanent impacts on riparian habitats, for a total of 12.00 acres of permanent impacts on natural or moderately disturbed habitats over the 12-year duration of the Project.

Exact compensatory mitigation for permanent routine maintenance impacts on streams, riparian, and wetland habitats will be determined during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP), as described in mitigation measure **BIO-11** (Section 4.1).

3.1.1.3. Temporary and Permanent Impacts within Ecoregions

To further quantify the distribution of temporary impacts, this evaluation assumes that the proportion of work occurring within each ecoregion corresponds to the proportion of the total Project area represented by that ecoregion. For example, because 74% of the Project area is located within the CCV ecoregion, it is assumed that 74% of the project activities would occur within that ecoregion.

Based on this assumption, **Table 2, Temporary and Permanent Impacts within Ecoregions,** summarizes the expected impacts that may occur within the three ecoregions within the County.

Table 2. Potential Temporary and Permanent Impacts within Ecoregions

Ecoregion	Temporary Impact on Riparian	Permanent Impact on Riparian	Temporary Impact on Streams	Permanent Impact on Streams
	Acres			
Central California Valley	13.32	4.44	13.32	4.44
Central California Foothills	3.60	1.20	3.60	1.20
Sierra Nevada	1.08	0.36	1.08	0.36
TOTAL	**18.00**	**6.00**	**18.00**	**6.00**

3.1.2. Impacts on Habitat Connectivity

Project activities would occur in areas that have already been disturbed by the construction of public works infrastructure and would be focused on repairing and maintaining existing infrastructure. Routine maintenance activities would not introduce any new barriers to wildlife movement. Terrestrial wildlife that may be present in the region generally migrates at night and would therefore have the opportunity to pass through areas that are temporarily subject to maintenance during nighttime hours without being significantly constrained. Any activities occurring within stream channels would occur only when the channel is naturally dry, avoiding any temporary or permanent impacts on aquatic habitat availability. Therefore, the Project is not expected to impact habitat connectivity or wildlife movement.

3.2. Special-Status Species Impacts

The following sections discuss the potential impacts on special-status species that could result from the implementation of 12-year Project. The sections reference avoidance and minimization measures that would be incorporated into the various routine maintenance projects, as relevant; the complete list of avoidance and minimization measures that may be implemented as part of the Project is included in Chapter 5.

3.2.1. Amphibians

Four special-status amphibian species have the potential to occur within or near the County's anticipated routine maintenance areas. These species are the Central California DPS of California tiger salamander (CTS), South Sierra DPS of foothill yellow-legged frog (FYLF), southern mountain yellow-legged frog (MYLF), and western spadefoot (WS).

Of these species, CTS and WS have the potential to occur in the CCV ecoregion; FYLF and WS have the potential to occur in the CCF ecoregion; and MYLF has the potential to occur in the SN ecoregion (**Figure 3, Survey Areas** in **Appendix A**). As described in **Table 2**, the Project is expected to temporarily impact approximately 26.64 acres of potential amphibian habitat within the CCV ecoregion, approximately 7.2 acres within the CCF ecoregion, and 2.16 acres within the SN ecoregion.

Potential temporary impacts may result from activities including debris and sediment removal, vegetation control, erosion control work on stream channels, and other work within or near channels or ponds has the potential to impact these amphibian species. Temporary impacts may include the alteration or loss of habitat and various perils associated with the presence of construction equipment such as entrapment and vehicular collisions. Amphibians occurring transiently within the Project areas during construction may also become trapped in open trenches or equipment and could be trampled by worker foot traffic. However, pre-construction desktop reviews will be conducted before each maintenance project begins (measure **BIO-4**) to determine which additional special-status species surveys, if any, are required. Species-specific measures (measures **CTS-1** and **AMPH-1**) will be implemented as described briefly below and in more detail in Section 4.2.1; these measures generally require potentially suitable habitat areas to be delineated with Environmentally Sensitive Area (ESA) fencing or flagging and for workers to let wildlife leave the site of their own volition. Temporarily impacted areas will be restored as described in measure **BIO-10**.

Over the life of the RMA, it is estimated that approximately 8.88 acres of riparian and stream habitat could be permanently impacted in the CCV ecoregion, 2.40 acres could be permanently impacted in the CCF ecoregion, and 0.72 acres could be permanently impacted in the SN ecoregion. Permanently impacted areas will be mitigated as described in measure **BIO-11**.

Additionally, as described in measure **BIO-3**, no RMA work will occur within or adjacent to vernal pools. Because CTS and WS may both use vernal pools for breeding, the implementation of measure **BIO-3** will reduce the potential for direct impacts on these species resulting from Project activities.

3.2.2. Birds

3.2.2.1. Migratory Birds and Raptors

Migratory birds and birds of prey, which are protected under the MBTA and/or Section 3503 of the CFG code, have the potential to nest in trees within the County's routine maintenance areas during the nesting season (February 15 through August 31). Routine maintenance projects may affect suitable nesting habitat for general migratory birds, raptors, and other 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, raptors, and other special-status bird species. 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 18 acres of potentially suitable riparian nesting habitat could be temporarily impacted and 6 acres could be permanently impacted by the

Project activities. Temporary impacts may include auditory and visual disturbances that cause individuals to change their behaviors and abandon their nests. Ground nests could be crushed by construction workers and equipment moving through the Project area. Permanent impacts could include the loss of nesting habitat.

To avoid and minimize the potential for migratory birds, raptors, and other special-status bird species to be impacted by routine maintenance activities, work will be conducted outside the nesting bird season to the extent possible. However, if work must occur during the bird nesting season, a preconstruction nesting bird survey will be conducted no more than 7 days prior to the start of construction, and no-work buffers will be established around any active nests to avoid impacts (measure **BIO-4**). To reduce the potential for active swallow or phoebe nests to be present within the Project areas during construction, inactive swallow nests may be knocked down outside of the nesting season, and incomplete nests may be knocked down during nesting bird season, consistent with the requirements in measure **BIO-5**. Furthermore, areas temporarily impacted by construction would be restored after work is complete (measure **BIO-10**), and permanently impacted areas would be mitigated as described in measure **BIO-11**.

3.2.2.2. Other Special-Status Species

11 special-status bird species have been identified as having the potential to occur within or near the Project area. These species are the American goshawk, bald eagle, burrowing owl, California spotted owl, golden eagle, loggerhead shrike, southwestern willow flycatcher (SWWF), Swainson's hawk, tricolored blackbird, western snowy plover, and willow flycatcher. Should these species occur in the Project area during construction, they could experience similar temporary and permanent impacts as those described in Section 3.2.2.1 (i.e., auditory and visual disturbances, permanent habitat loss, etc.).

Of these special-status bird species, the following have the potential to occur in the CCV ecoregion: burrowing owl, loggerhead shrike, Swainson's hawk, tricolored blackbird, western snowy plover, and willow flycatcher. Over the life of the RMA, it is assumed that up to 13.32 acres of riparian habitat could be temporarily impacted and 4.44 acres could be permanently impacted by the routine maintenance projects in the CCV ecoregion.

The following special-status birds have the potential to occur in the CCF ecoregion: golden eagle, tricolored blackbird, and willow flycatcher. Within the CCF ecoregion, it is assumed that 3.60 acres of riparian habitat could be temporarily impacted and 1.20 acres could be permanently impacted by the Project.

The following special-status species have the potential to occur in the SN ecoregion: American goshawk, bald eagle, California spotted owl, golden eagle, SWWF, and willow flycatcher. Within the SN ecoregion, it is assumed that 1.08 acres of riparian habitat could be temporarily impacted and 0.36 acres could be permanently impacted by the Project.

Riparian habitats impacted by the Project may not provide suitable habitat for all of these species; therefore, habitat suitability will be assessed on a project-by-project basis (per measure **BIO-4**). If suitable habitat for special-status bird species is found to occur within an RMA project area, the associated species-specific measures described in Section 4.2.2 would be implemented to avoid and minimize impacts on special-status bird species.

3.2.3. Fish

Two special-status fish species – California golden trout and Kern River rainbow trout – have the potential to occur within certain streams and waterways of the County. **Figure 4, Special-Status Fish Ranges** in **Appendix A**, maps the portions of the Project area that could impact these two species. Approximately 47 acres (2%) of the Project area occurs within range of the California golden trout and approximately 72 acres (3%) of the Project area occurs within the range of the Kern River rainbow trout. Assuming that the proportion of work occurring within the range of these fish species corresponds to the proportion of the total Project area overlapping the species, it is expected that 0.9 acres of temporary impacts on streams and 0.9 acres of temporary impacts on riparian habitats within the range of these fish species could occur. The Project could permanently impact 0.45 acres of stream habitat and 0.45 acres of riparian habitat within the range of these fish species.

Routine maintenance activities may be conducted within or adjacent to waterways that support these fish species, as demonstrated in **Figure 4**. Specifically, activities such as facility repair, removal, or replacement, channel alignment maintenance, erosion control, and other debris removal have the greatest potential to impact these fish species. Potential impacts to fish include the alteration or removal of suitable habitat, obstruction of migratory pathways, alteration of streamflow conditions, changes in stream shading/temperature, and even entrapment in construction equipment. To reduce the potential for these temporary and permanent impacts to occur, any work within the channel would only occur when the channel is naturally dry, and work would not occur during precipitation events (measure **BIO-21**). Furthermore, temporarily impacted riparian habitat areas would be restored following construction (measure **BIO-10**), and permanently impacted areas would be mitigated as described in measure **BIO-11**.

3.2.4. Invertebrates

Two special-status invertebrate species – Crotch's bumble bee and monarch butterfly – have the potential to occur in the Project area. Crotch's bumble bee has the potential to occur within the CCV and CCF ecoregions, while the monarch butterfly has the potential to occur in all three ecoregions. Both species require a diversity of floral resources for foraging. Crotch's bumble bee requires suitable upland habitat for nesting, such as loose soils and leaf piles, and the monarch butterfly requires plants in the genus *Asclepias* to support its larval life stage.

Between both the CCV and CCF ecoregions, 16.92 acres of riparian habitat could be temporarily impacted by the Project and 5.64 acres could be permanently impacted by the Project. Throughout all three ecoregions, 18. acres of riparian habitat could be temporarily impacted by the Project and 6 acres could be permanently impacted by the Project. However, because these species both occur mostly in upland grassland habitats, they are less likely to occur within riparian areas and therefore less likely to be impacted by the Project. Both species may occur within the Project area transiently; thus, construction work could disturb these species' foraging behaviors and could permanently reduce the availability of foraging habitat. Additionally, if plants from the genus *Asclepias* are present within Project impact areas, there is potential for monarch larvae to occupy the Project area and be injured or killed by Project work.

Habitat suitability for these two species will be evaluated on a project-by-project basis before construction (measure **BIO-4**). Additionally, any plants of the *Asclepias* genus will be protected in place, if feasible, or surveyed for the presence of monarch life stages prior to removal (measure **BIO-22**). If suitable habitat for either species is identified, any temporarily impacted areas will be reseeded following construction with a seed mix that will provide diverse, native floral resources to create suitable foraging habitat for these insects (measure **BIO-23**).

3.2.5. Mammals

10 special-status mammal species have the potential to occur within or near the routine maintenance areas. These species are American badger, fisher, pallid bat, ringtail, San Joaquin kit fox, Sierra Nevada mountain beaver, spotted bat, Tipton kangaroo rat, Townsend's big-eared bat, and western mastiff bat. The American badger, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, and western mastiff bat have the potential to occur in the CCV ecoregion. The American badger, pallid bat, Townsend's big-eared bat, and western mastiff bat also have the potential to occur in the CCF ecoregion. The fisher, ringtail, Sierra Nevada mountain beaver, and spotted bat have the potential to occur in the SN ecoregion.

As described in **Table 2**, the Project may temporarily impact 13.32 acres of riparian habitat within the CCV ecoregion, 3.60 acres of riparian habitat within the CCF ecoregion, and 1.08 acres of riparian habitat within the SN ecoregion. Temporary impacts on mammal species may include the short-term loss or degradation of habitat; direct impacts such as vehicle strikes, trampling, and/or entombment within ground burrows; and indirect impacts such as auditory and visual disturbances resulting in behavioral changes. The Project may permanently impact 4.44 acres of riparian habitat within the CCV ecoregion, 1.20 acres of riparian habitat within the CCF ecoregion, and 0.36 acres of riparian habitat within the SN ecoregion. Permanent impacts would mainly result from vegetation removal and soil compaction. Because most RMA projects would occur within or directly adjacent to areas that are already disturbed/degraded, special-status mammal species are unlikely to spend extended periods of time (i.e., burrowing/denning) within the RMA project areas; however, individuals may occur transiently in the work areas. Because most special-status mammal species with potential to occur are nocturnal, it is unlikely that their activities

would be hindered by the construction of the RMA projects. Furthermore, because the extent of project impacts is so limited, special-status mammals are expected to readily relocate to nearby habitats of equal or higher quality if they are disturbed temporarily by construction activities.

Temporarily impacted habitat would be restored to pre-construction conditions, as described in measure **BIO-10**. Permanently impacted habitat would be mitigated as described in measure **BIO-11**.

To further reduce the potential for impacts on special-status mammals, species-specific avoidance and minimization measures would be implemented as needed, as described in Section 4.2.5. These measures include **BAT-1** (Townsend's Big-eared Bat and Other Bat Species), **SNMB-1** (Sierra Nevada mountain beaver), **TKR-1** (Tipton Kangaroo Rat), **SJKF-1** (San Joaquin Kit Fox), **MAMM-1** (Ringtail and Fisher), and **AMBA-1** (American Badger). The required species-specific surveys will be determined on a project-by-project basis, based on the location of the proposed work and the results of the pre-activity desktop review (measure **BIO-4**).

3.2.6. Reptiles

Six special-status reptile species have the potential to occur within or near the routine maintenance areas. These species are Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, northern California legless lizard, northwestern pond turtle, and southern rubber boa. The Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, and northern California legless lizard have the potential to occur in the CCV ecoregion. The northern California legless lizard and the northwestern pond turtle have the potential to occur in the CCF ecoregion. The southern rubber boa has the potential to occur in the SN ecoregion.

As described in Table 2, the Project may temporarily impact 13.32 acres of riparian habitat within the CCV ecoregion, 3.60 acres of riparian habitat within the CCF ecoregion, and 1.08 acres of riparian habitat within the SN ecoregion. Temporary impacts on reptile species may include the short-term loss or degradation of habitat; direct impacts such as vehicle strikes, trampling, and/or entombment within ground burrows; and indirect impacts such as auditory and visual disturbances resulting in behavioral changes. The Project may permanently impact 4.44 acres of riparian habitat within the CCV ecoregion, 1.20 acres of riparian habitat within the CCF ecoregion, and 0.36 acres of riparian habitat within the SN ecoregion. Permanent impacts would mainly result from vegetation removal and soil compaction. Because most RMA projects would occur within or directly adjacent to areas that are already disturbed/degraded, special-status reptile species are unlikely to spend extended periods of time (i.e., burrowing/nesting) within the RMA project areas; however, individuals may occur transiently in the work areas. Furthermore, because the extent of project impacts is so limited, special-status reptiles are expected to readily relocate to nearby habitats of equal or higher quality if they are disturbed temporarily by construction activities.

To further reduce the potential for impacts on special-status reptiles, species-specific avoidance and minimization measures would be implemented as needed, as described in Section 4.2.6. These measures include **BNLL-1** (Blunt-nosed Leopard Lizard), **SRB-1** (Southern Rubber Boa), and **REPT-1** (Coast Horned Lizard, Northwestern Pond Turtle, Northern California Legless Lizard, Bakersfield Legless Lizard). The required species-specific surveys will be determined on a project-by-project basis, based on the location of the proposed work and the results of the pre-activity desktop review (measure **BIO-4**).

3.2.7. Plants

38 special-status plant species have the potential to occur in the Project area. These plants are: Alkali mariposa lily, Alkali-sink goldfields, American manna grass, Blandow's bog moss, Bolander's moodreed, broad-nerved hump moss, California satintail, cut-leaf checkerbloom, cylindrical trichodon, Earlimart orache, field ivesia, grey-leaved violet, Hoover's spurge, Kaweah brodiaea, Kaweah fawn lily, Keck's checkermallow, Kern River daisy, lesser saltscale, Mojave tarplant, Mountain bent grass, mouse buckwheat, northern meadow sedge, Piute Mountains navarretia, Prairie wedge grass, recurved larkspur, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, Sanford's arrowhead, scalloped moonwort, Shirley Meadows start-tulip, Springville clarkia, spiny-sepaled button-celery, striped adobe-lily, subtle orache, Tracy's eriastrum, watershield, Winter's sunflower, and Yosemite popcornflower.

15 special-status plants have the potential to occur in the CCV ecoregion, 14 have the potential to occur in the CCF ecoregion, and 21 have the potential to occur in the SN ecoregion (several species have the potential to occur in more than one ecoregion, as described in **Table 1**). Should plants occur within the project work areas, they could be directly impacted by work activities such as vegetation trimming or removal, fill placement, or other ground-disturbing work. The use of construction equipment within suitable habitat areas may result in individuals being crushed or smothered by dust created by vehicle use or earth-moving activities.

To avoid impacts on these species, pre-construction rare plant surveys will be required within project areas that 1) contain suitable habitat for special-status plants and 2) have not been surveyed in the last 5 years. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which special-status plant surveys are required (measure **BIO-5**).

Chapter 4. Avoidance and Minimization Measures

4.1. General Measures

The following avoidance and minimization measures would be implemented for all RMA Projects.

BIO-1: Environmental Training. The County shall provide an annual training from a qualified individual to all County employees, contractors, and visitors who will be present during Project activities regarding the contents of the RMA, the resources at stake, and the legal consequences of non-compliance. Should a specific maintenance project be implemented by non-County employees, the project personnel shall receive the same training prior to starting work on the project. The environmental training may be waived on a case-by-case basis for projects with no potential to impact special-status species or other biological resources.

BIO-2: Work Hours. All work activities shall be confined to daylight hours. "Daylight hours" refers to the daytime period between sunrise and sunset.

BIO-3: No Work in Vernal Pools. No work shall occur within 50 feet of vernal pools. Earthwork including grading and recontouring shall not be conducted within 250 feet of vernal pools.

BIO-4: Pre-Activity Desktop Review. Prior to the implementation of routine maintenance projects, a qualified biologist will conduct a desktop review of aerial and street-level imagery, species occurrence and range data, and/or other sources to identify whether the specific project site contains suitable habitat for special-status wildlife species.

The special-status wildlife species that should be evaluated during project-specific desktop reviews vary by ecoregion/Survey Area, as described below:

Central California Valley (Survey Area 1)

Survey species: California tiger salamander, western spadefoot, burrowing owl, loggerhead shrike, Swainson's hawk, tricolored blackbird, western snowy plover, willow flycatcher, Crotch's bumble bee, monarch butterfly, American badger, pallid bat, San Joaquin kit fox, Tipton kangaroo rat, Townsend's big-eared bat, western mastiff bat, Bakersfield legless lizard, blunt-nosed leopard lizard, coast horned lizard, and Northern California legless lizard.

Central California Foothills (Survey Area 2)

Survey species: Foothill yellow-legged frog, western spadefoot, golden eagle, willow flycatcher, Crotch's bumble bee, monarch butterfly, American badger, pallid bat, Townsend's big-eared bat, western mastiff bat, northern California legless lizard, and northwestern pond turtle.

Sierra Nevada (Survey Area 3)

Survey species: Southern mountain yellow-legged frog, American goshawk, bald eagle, California spotted owl, golden eagle, southwestern willow flycatcher, willow flycatcher, California golden trout, Kern River rainbow trout, Little Kern golden trout, monarch butterfly, American badger, fisher, ringtail, Sierra Nevada mountain beaver, spotted bat, and southern rubber boa.

If the desktop review identifies suitable habitat, individuals, or signs of occupation by any special-status wildlife species, the relevant species-specific avoidance and minimization measures described in Section 4.2 would be implemented. Survey results shall be included with the VRF to inform the necessary avoidance and minimization measures at each site.

BIO-5: Special-Status Plant Surveys. Prior to the implementation of routine maintenance projects within special-status plant habitat and in areas that have not be surveyed in the past 5 years, pre-construction special-status plant surveys will be required. Maintenance areas will be assessed on a case-by-case basis prior to construction to determine which special-status plant surveys are required. If there is suitable habitat for special-status plants present ("suitable habitat" for special-status 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 site-specific conditions and the location of the maintenance activity, as detailed below:

Central California Valley (Survey Area 1)

Survey species: Alkali mariposa lily, Alkali-sink goldfields, California satintail, Earlimart orache, Hoover's spurge, lesser saltscale, recurved larkspur, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, Sanford's arrowhead, spiny-sepaled button-celery, striped adobe-lily, subtle orache, watershield, and Winter's sunflower.

Central California Foothills (Survey Area 2)

Survey species: Alkali mariposa lily, American manna grass, California satintail, Kaweah brodiaea, Keck's checker-mallow, Mojave tarplant, mouse buckwheat, Piute Mountains navarretia, recurved larkspur, Springville clarkia, spiny-sepaled button-celery, striped adobe-lily, watershield, and Winter's sunflower.

Sierra Nevada (Survey Area 3)

Survey species: American manna grass, Blandow's bog moss, Bolander's woodreed, broad-nerved hump moss, cut-leaf checkerbloom, cylindrical trichodon, field ivesia, grey-leaved violet, Kaweah brodiaea, Kaweah fawn lily, Kern River daisy, Mojave tarplant, mountain bentgrass, northern meadow sedge, prairie wedge grass, scalloped

moonwort, Shirley Meadows star-tulip, Springville clarkia, Tracy's eriastrum, watershield, and Yosemite popcornflower.

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

BIO-6: Wildlife Encounters. 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.

BIO-7: Cover Trenches and Pipes Overnight. Any steep-walled holes or deep trenches shall be covered overnight to reduce the potential for wildlife to become trapped. Steep-walled holes and deep trenches shall be checked each morning before starting work for trapped wildlife. If trapped wildlife is discovered, a qualified biologist shall be contacted to relocate the individuals or coordinate with CDFW if a special-status species is discovered. Pipes stored at the Project area overnight shall be capped to keep wildlife out.

BIO-8: Erosion Control Materials. 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.

BIO-9: Invasive Species Control. 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.

BIO-10: Vegetation Disturbance and Revegetation. 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.

BIO-11: Mitigate for Permanent Impacts. 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, purchasing suitable mitigation credits from a CDFW-approved mitigation bank, or using another CDFW-approved mitigation approach. Specific requirements for implementing and monitoring mitigation will be determined in consultation with CDFW during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA.

4.2. Species-Specific Measures

The following measures would be implemented only for RMA Projects that support suitable habitat for special-status species and may have the potential to impact them, as determined during the pre-activity desktop review (**BIO-4**).

4.2.1. Amphibians

CTS-1: California Tiger Salamander. The VRF submitted for each maintenance activity conducted in Survey Area 1 (Central California Valley) shall document whether the Project site is within the range of the species and provides suitable upland or breeding habitat for the species (i.e., the results of the pre-activity desktop review). If suitable habitat occurs at the Project site, a qualified biologist shall survey the Project site and flag any potentially suitable rodent burrows within the Project area and a 50-foot survey buffer and include a map of all the flagged rodent burrows in the VRF. Project activities shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Buffers may be reduced on a case-by-case basis, as determined by the qualified biologist and in coordination with CDFW. Maintenance activity locations within the range and providing suitable habitat for the California tiger salamander shall only be completed during the species' general inactive season, from June through October.

AMPH-1: Foothill Yellow-Legged Frog, Southern Mountain Yellow-Legged Frog, and Western Spadefoot. If water is present within work areas during maintenance activities, and potentially suitable habitat for foothill yellow-legged frog, southern mountain yellow-legged frog, and/or western spadefoot is present, a qualified biologist must conduct a clearance sweep of the Project work areas within 3 days prior to initial ground disturbance. The pre-construction clearance survey will be completed by a CDFW-approved biologist. Any individuals of these species discovered at the Project work areas immediately prior to or during Project activities shall be allowed to move out of the work area of their own volition.

4.2.2. Birds

BIRD-1: Surveys for Nesting Avians and Raptors. To protect nesting birds, no Project maintenance activity shall be completed from February 15 through August 31 unless the following surveys are completed by a qualified biologist within 7 days prior to initiating the Project activity:

Raptors

Survey for nesting activity of raptors within a 300-foot radius of the Project site. Surveys shall be conducted at appropriate nesting times and concentrate on mature trees. If any active nests are observed, a no-work buffer of 300 feet shall be designated around the active nest until the young have fledged and are no longer reliant on the nest tree or parental care. The size of the no-work buffer may be adjusted if deemed appropriate by a qualified biologist.

Other Avian Species

Survey for nesting activity within a 100-foot radius of the Project boundaries. If any active nests are observed, a no-work buffer will be designated around the active nest until the young have fledged and are no longer reliant on the nest tree or parental care. The size of this buffer shall be determined by a qualified biologist based on the species of the bird(s) nesting, the specific site conditions, and the type of work being conducted.

Projects that are determined to have the potential to impact the following special-status species, as determined during the pre-construction desktop review described in measure **BIO-4**, must also implement the relevant species-specific measures in Section 4.2.2: burrowing owl, California spotted owl, southwestern willow flycatcher, willow flycatcher, Swainson's hawk, and tricolored blackbird.

BIRD-2: Mud Nest Removal. 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 other avian species 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 (i.e., between September 1 and February 14). 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.

During the nesting season (February 15 through August 31), 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.

BUOW-1: Burrowing Owl. The VRF submitted for each maintenance activity in Survey Area 1 (Central California Valley) shall identify whether habitat for burrowing owl is present on or within 500 feet of the work area (i.e., the results of the pre-activity desktop survey). If habitat is present, a qualified wildlife biologist shall survey for burrowing owl within the Project site and a 500-foot radius no more than 7 days before the Project commences. Surveys shall be conducted at appropriate times to maximize detection. The VRF submitted for each maintenance project shall identify whether the Project site is within the range of the species. If so, the survey results shall be included in the VRF. If any active burrowing owl burrows are observed, these burrows shall be designated an Environmentally Sensitive Area (ESA), protected, and monitored by a qualified biologist during project-related activities. Monitoring reports shall be submitted to CDFW. A minimum 500-foot avoidance buffer shall be established and maintained around each owl burrow during the nesting season (February 1 through August 31). If active burrowing owl burrows are observed outside of the nesting season, a minimum 150-foot no-disturbance buffer shall be established around each burrow. The avoidance buffers may be reduced if warranted based on site-specific conditions, the type of maintenance activity, or other factors.

CSO-1: California Spotted Owl. The VRF submitted for each maintenance activity in Survey Area 3 (Sierra Nevada) shall identify whether suitable nesting habitat for the California spotted owl occurs within 0.25 mile of the work area (i.e., the results of the pre-activity desktop review). If habitat is present, CDFW shall only approve the VRF if the maintenance activity would be completed entirely outside of nesting season (March through June) or if the County conducts surveys within 0.25 mile of the work areas and concludes that no active California spotted owl nests occur within the survey area. If an active nest is found within 0.25 mile of the Project area, work must not commence until after nesting season has concluded or after the young have fledged and are no longer reliant on the nest.

SWHA-1: Swainson's Hawk. The VRF submitted for each maintenance activity in Survey Area 1 (Central California Valley) shall describe the habitat and identify whether the Project location includes or is within 0.5 mile of nesting habitat for this species (i.e., the results of the pre-activity desktop review). If a site is within 0.5 mile of nesting habitat, CDFW shall only approve the VRF if the maintenance activity will be completed entirely outside of nesting season (nesting season is March 1 through August 31) or if the County conducts surveys following the Swainson's Hawk Technical Advisory Committee's protocols and concludes that Swainson's hawks are absent from the Project area. Alternatively, the County may document in the VRF their rationale to waive the protocol-level surveys based on the type or duration of the proposed activities and site-specific conditions. If CDFW

concurs with the County's rationale, work may occur during nesting season without negative protocol-level survey results if a qualified biologist conducts a clearance survey no more than 3 days before the activity commences and confirms that no active Swainson's hawk nests are present within 0.5 mile of the Project area.

TCB-1: Tricolored Blackbird. The VRF submitted for each maintenance activity in Survey Areas 1 and 2 (Central California Valley and Central California Foothills) shall identify whether habitat for this species is present within 500 feet of the work area (i.e., the results of the pre-activity desktop review). If habitat is present, CDFW shall only approve the VRF if the maintenance activity will be completed entirely outside of the nesting season (March through August). Alternatively, a qualified biologist who is experienced in surveying for tricolored blackbirds shall survey all areas of suitable breeding habitat within the work area and a 500-foot radius of the site. Survey results shall be included in the VRF. If a nesting colony is found, no activity shall occur within a 500-foot buffer of the colony until a qualified biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site. The no-work buffer may be reduced as determined by a qualified biologist and approved by CDFW based on the type and duration of the proposed activities and the site-specific conditions.

WF-1: Willow Flycatcher and Southwestern Willow Flycatcher. For activities occurring in the survey areas with the potential to support the willow flycatcher and/or the southwestern willow flycatcher, the VRF shall describe whether the Project includes or is within 500 feet of habitat for these species (i.e., the results of the pre-activity desktop review). If suitable habitat occurs, the Project shall be completed entirely outside of the species' nesting season (May through August).

Alternatively, a qualified biologist shall survey all areas of suitable breeding habitat for the species within 500 feet of the Project work area according to the appropriate species-specific survey protocol, as listed below:

Southwestern Willow Flycatcher

Surveys shall be conducted according to *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher,* published in 2010 by the U.S. Geological Survey in cooperation with the Bureau of Reclamation and U.S. Fish and Wildlife Service (https://pubs.usgs.gov/tm/tm2a10/pdf/tm2a10.pdf).

Willow Flycatcher

Surveys shall be conducted according to *A Willow Flycatcher Survey Protocol for California,* published in 2003 by Helen L. Bombay et al. (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84019&inline).

The County shall include the survey results with the VRF. CDFW shall approve the VRF if survey results were negative and CDFW concurs with the survey results.

Alternatively, the County may document in the VRF their rationale to waive the protocol-level surveys based on the type or duration of the proposed activities and site-specific conditions. If CDFW concurs with the County's rationale, work may occur during nesting season without negative protocol-level survey results if a qualified biologist conducts a clearance survey no more than 3 days before the activity commences and confirms that no active southwestern willow flycatcher or willow flycatcher nests are present within 500 feet of the Project area.

4.2.3. Fish

FISH-1. Maintenance activities occurring within the bed, bank, or channel of waterways within the Project area shall only be conducted when the channel is naturally dry. 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. Emergency maintenance activities, which are defined as immediate emergency work necessary to protect life or property or to restore public facilities necessary to maintain service, are exceptions to the provisions of this measure.

4.2.4. Invertebrates

INVERT-1: Monarch Butterfly – Pre-Construction Survey for *Asclepias* Plants. If construction takes place during the Monarch migration season in the Sierras (June – September), native milkweeds (any plant in the genus *Asclepias*) should be protected in place with a 20-foot no-disturbance buffer. If protection in place is not possible, the plant(s) shall be surveyed by a qualified biologist for the presence of monarch butterfly larval life stages. If monarch larvae are discovered, the plant may not be removed or disturbed until the monarch(s) are no longer using the plant.

4.2.5. Mammals

BAT-1: Townsend's Big-Eared Bat and Other Bat Species. Bats shall not be disturbed without specific notice to and consultation with CDFW. Pre-activity surveys shall be conducted at maintenance sites with potential bat habitat including bridges with expansion joints, box girders, or other suitable day roosting habitat. If bats are present during pre-activity surveys, survey methods that will result in species identification shall be employed, and results shall be submitted to CDFW in a survey report that includes the survey

methodology and, if present, the species, colony size, roost location, and characteristics. The VRF submitted for each maintenance activity shall indicate whether roosting habitat for Townsend's big-eared bat is present within 100 feet of the work area. If other bat species are present and Townsend's big-eared bat is determined to be absent, and Project activity could impact roosting bats, the County shall submit a Bat Exclusion Plan to CDFW for review and approval with the VRF. If initial surveys had a negative result, the County shall conduct a follow-up bat preconstruction survey within 7 days prior to the maintenance project start date to determine whether bats have moved into or adjacent to the Project area. If bats are subsequently detected, the County shall contact CDFW and the process defined above shall follow, beginning with the identification of the species.

SNMB-1: Sierra Nevada Mountain Beaver. RMA activities on small streams within Survey Area 3, 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.

TKR-1: Tipton Kangaroo Rat. The VRF submitted for each maintenance project shall describe the habitat and identify whether the Project location includes or is within 50 feet of habitat for this species (i.e., the results of the pre-activity desktop review). If so, a qualified biologist shall flag all potentially suitable rodent burrows within 50 feet of the Project work areas and include a map of all flagged rodent burrows with the VRF. Project activities shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Alternately, if avoidance of all burrows is not possible, then protocol-level trapping surveys shall be conducted by a qualified biologist, and the results submitted to CPFW with the VRF. CDFW shall approve the VRF if survey results are negative and CDFW concurs with survey results.

SJKF-1: San Joaquin Kit Fox. The VRF submitted for each maintenance project shall identify whether the Project site is within the range of the species and supports suitable habitat for this species (i.e., the results of the pre-activity desktop review). If so, a qualified biologist shall survey of the Project site and a 250-foot buffer to identify potential dens and other signs of the species. Survey results shall be included in the VRF, and during Project activity, Permittee shall follow all requirements in the United States Fish and Wildlife. Service (USFWS) "USFWS Standardized Recommendations for the Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance" (http://www.fws.gov/sacramento/es/Survey~Protocols-Guidelines/Documents/kitfox_standard_rec_2O11.pdf). A qualified biologist shall be available on-site during all Project-related activities that could impact the species. If kit fox are found on or adjacent to a Project site, all activity shall cease until a qualified biologist confirms that the individual has left of its own volition.

If San Joaquin kit fox dens are found, they shall be avoided by appropriate distances (potential or atypical den = 50 feet; known den = 100 feet; pupping den = 250 feet). During reconnaissance level surveys, the den shall be treated as a known den unless sign associated with natal/pupping activity is observed. No disturbance to known San Joaquin kit fox dens shall occur and no work. shall occur within the above buffers, unless reduced buffers are agreed upon by the County and CDFW given site conditions and the type/duration of work proposed.

MAMM-1: Ringtail and Fisher. If any individual of these species is discovered in the work area immediately prior to or during maintenance activities, maintenance activities shall cease or shall not commence, and the individual shall be allowed to leave the work area of its own volition. Ringtail and fisher individuals shall not be handled, harassed, or disturbed in any way.

AMBA-1: American Badger. Any American badger detected within the Project work area during Project activities shall be allowed to move out of the work area of its own volition. If an American badger is denning on or immediately adjacent to a Project work area, Permittee shall consult with CDFW to determine whether the animal(s) may be evicted from the den. Eviction of badgers will not be approved by CDFW unless it is confirmed that no dependent young are present.

4.2.6. Reptiles

BNLL-1: Blunt-nosed Leopard Lizard. The VRF submitted for each maintenance project shall describe the habitat and identify whether the Project location includes or is within 50 feet of habitat for this species. If so, a qualified biologist shall flag all rodent burrows within the Project work area and a 50-foot radius, and Permittee shall include a map of all flagged burrows with the VRF. Project activity shall avoid these burrows by a minimum 50-foot no-disturbance buffer. Alternatively, if avoidance of burrows is not feasible, protocol level surveys to detect species presence shall be conducted by qualified wildlife biologists. CDFW shall approve the VRF if survey results are negative and CDFW concurs with the survey results.

SRB-1 Southern Rubber Boa. RMA activities in potentially suitable habitat areas (riparian areas with rocky outcrops, downed logs, leaf litter, or other hibernacula) within Survey Area 3, will be avoided to the extent feasible. If bank disturbance is planned for streams at these elevations, the County will develop a southern rubber boa avoidance plan for CDFW approval prior to construction, including protective measures such as pre-construction surveys and biological monitoring as necessary.

REPT-1: Coast Horned Lizard, Northwestern Pond Turtle, Northern California Legless Lizard, Bakersfield Legless Lizard. Each maintenance project work area providing habitat for the

species shall be searched for these lizards by a qualified biologist immediately prior to starting work. Individuals of this species present in the work area shall be allowed to leave the work area of their own volition or shall be moved out of harm's way by a qualified biologist to a suitable area at least 100 feet upstream or downstream and outside the influence of the Project area. Should the northwestern pond turtle become federally listed, it shall not be moved without prior coordination with the USFWS.

Any loose substrate in which lizards could bury themselves shall be gently raked with a hand tool (e.g., a garden rake) to a depth of 2 inches to locate any lizards that could be under the surface immediately prior to starting the Project activity.

Chapter 5. References

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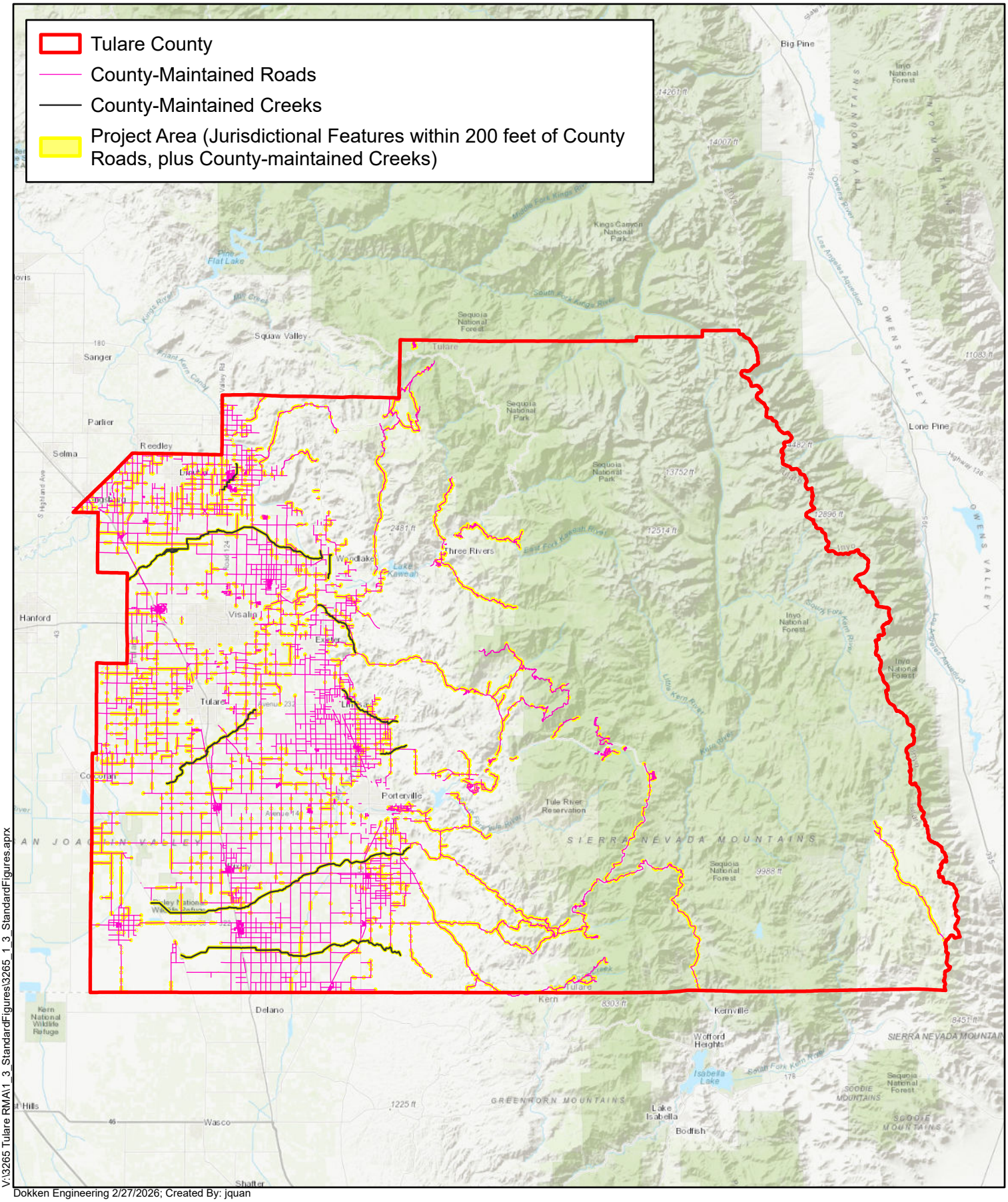
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Appendix A: Figures



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Tulare County, California

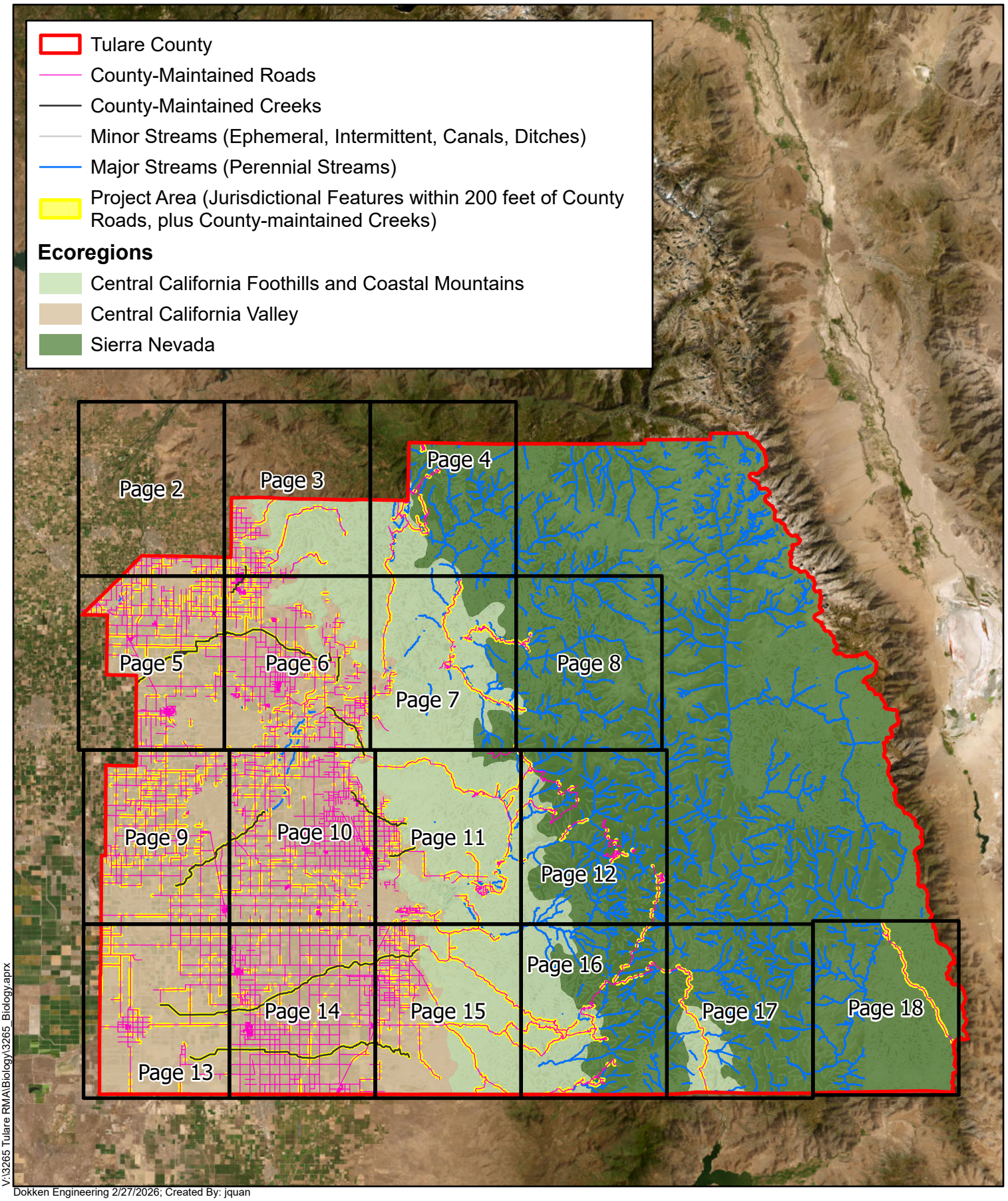
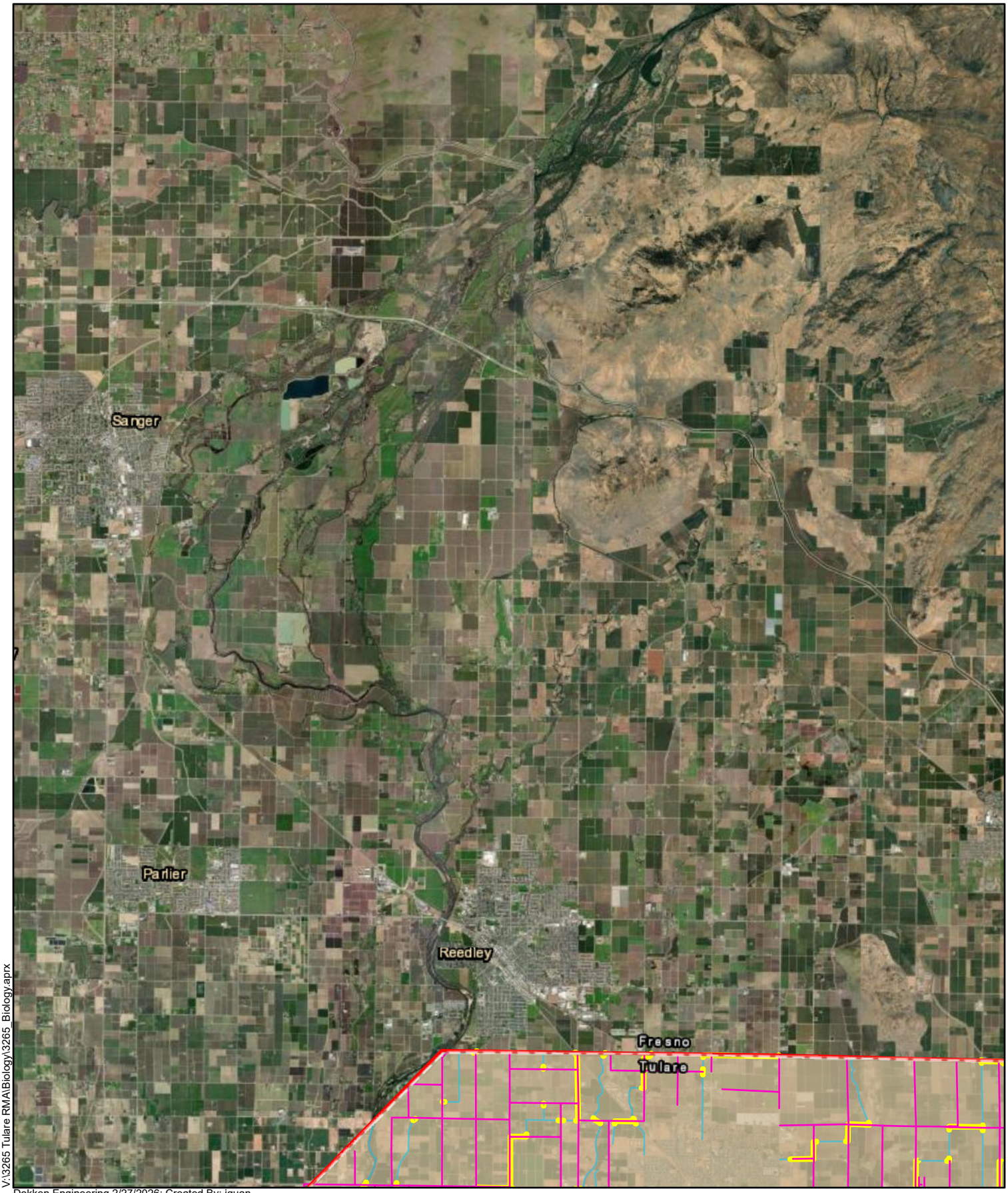


Figure 2
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CCV Ecoregion

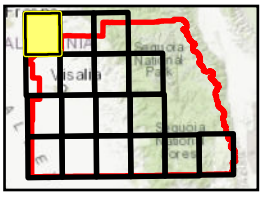
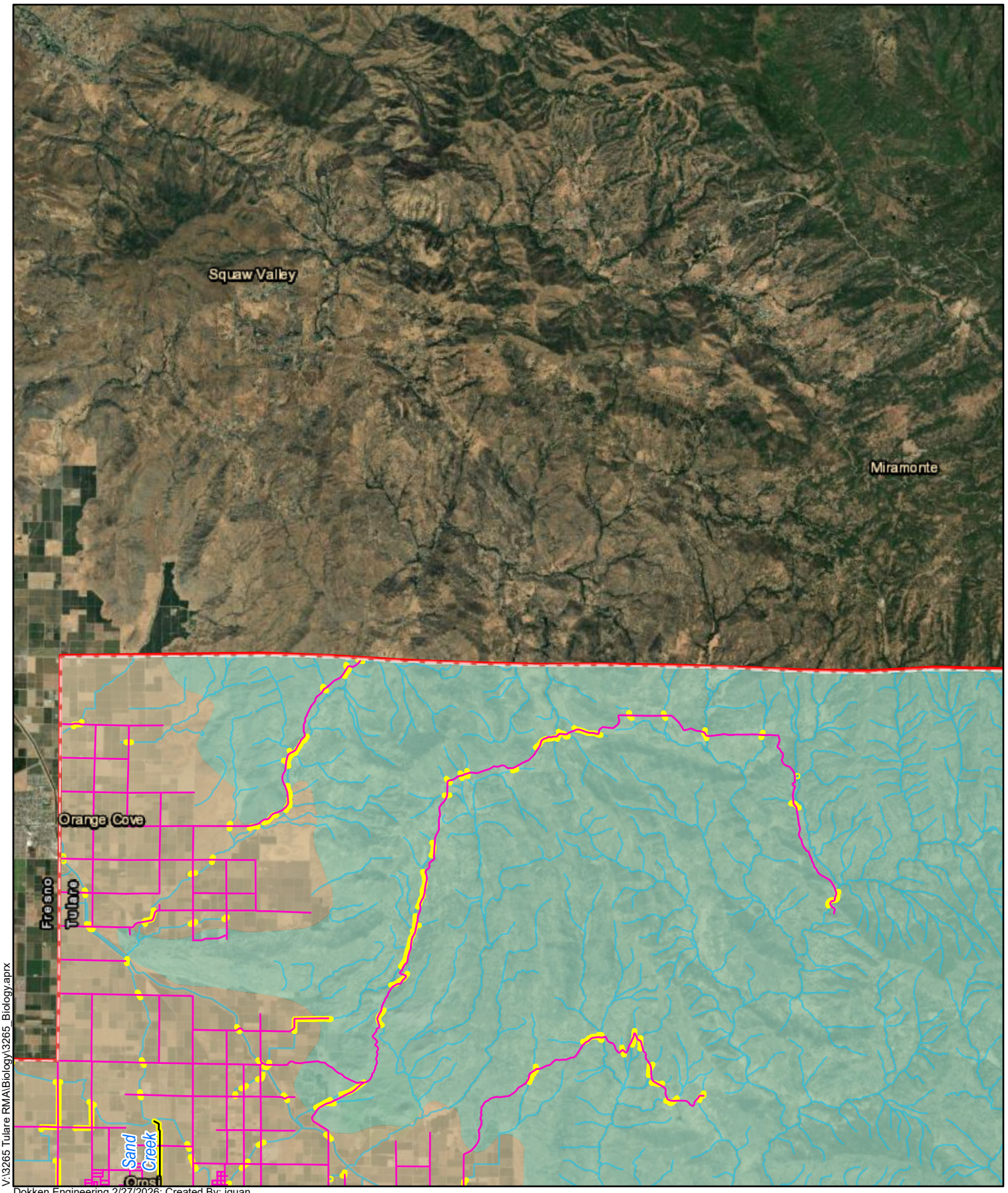


Figure 2
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Tulare County
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County-Maintained Creeks
Minor Streams
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CCV Ecoregion

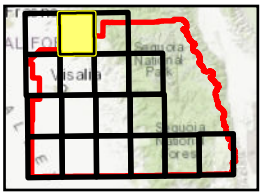
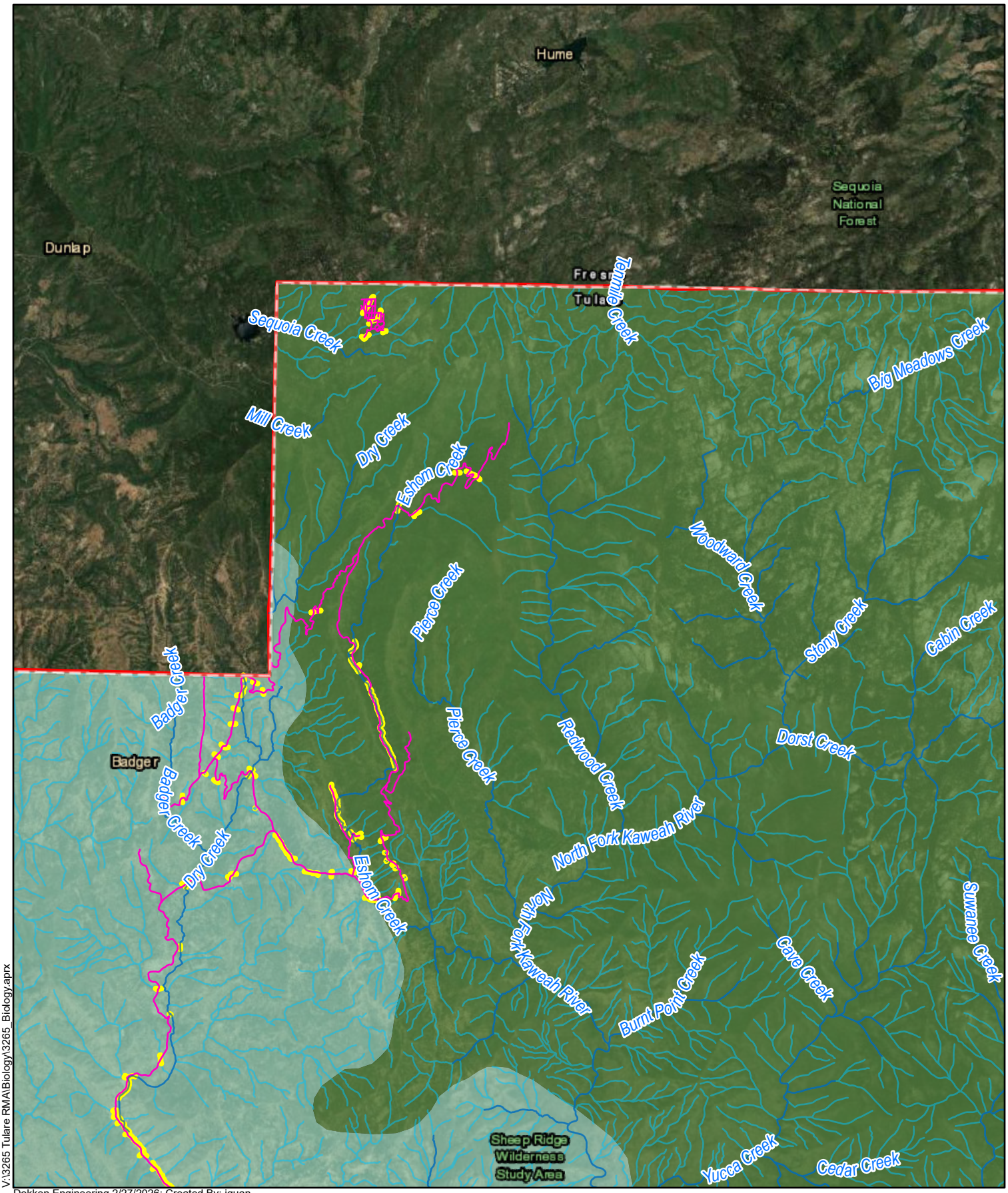


Figure 2
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Tulare County
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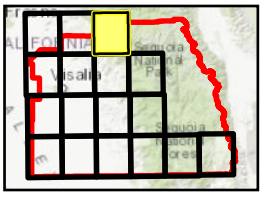
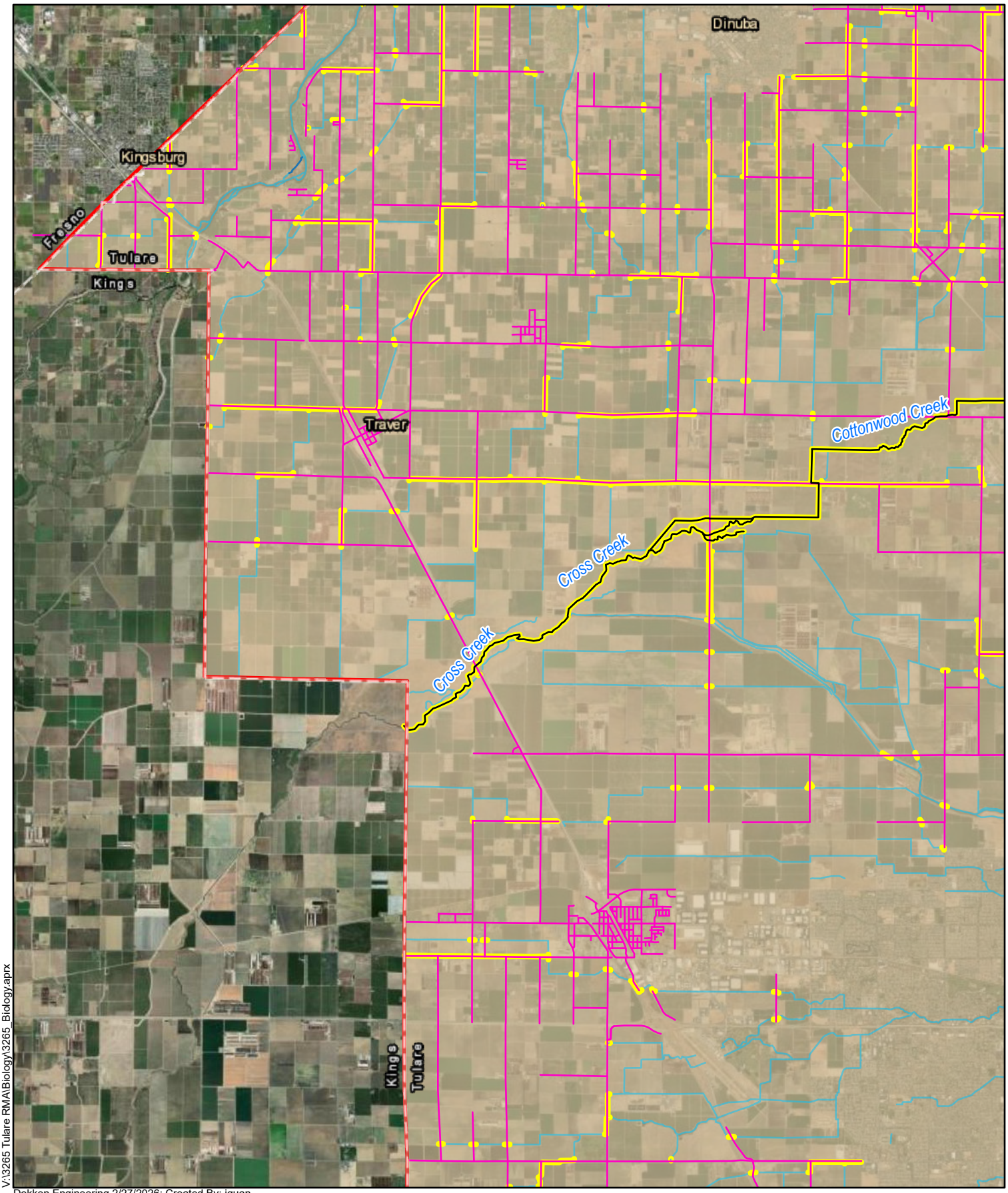


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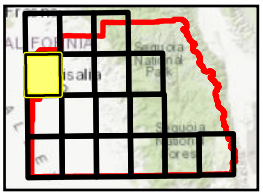
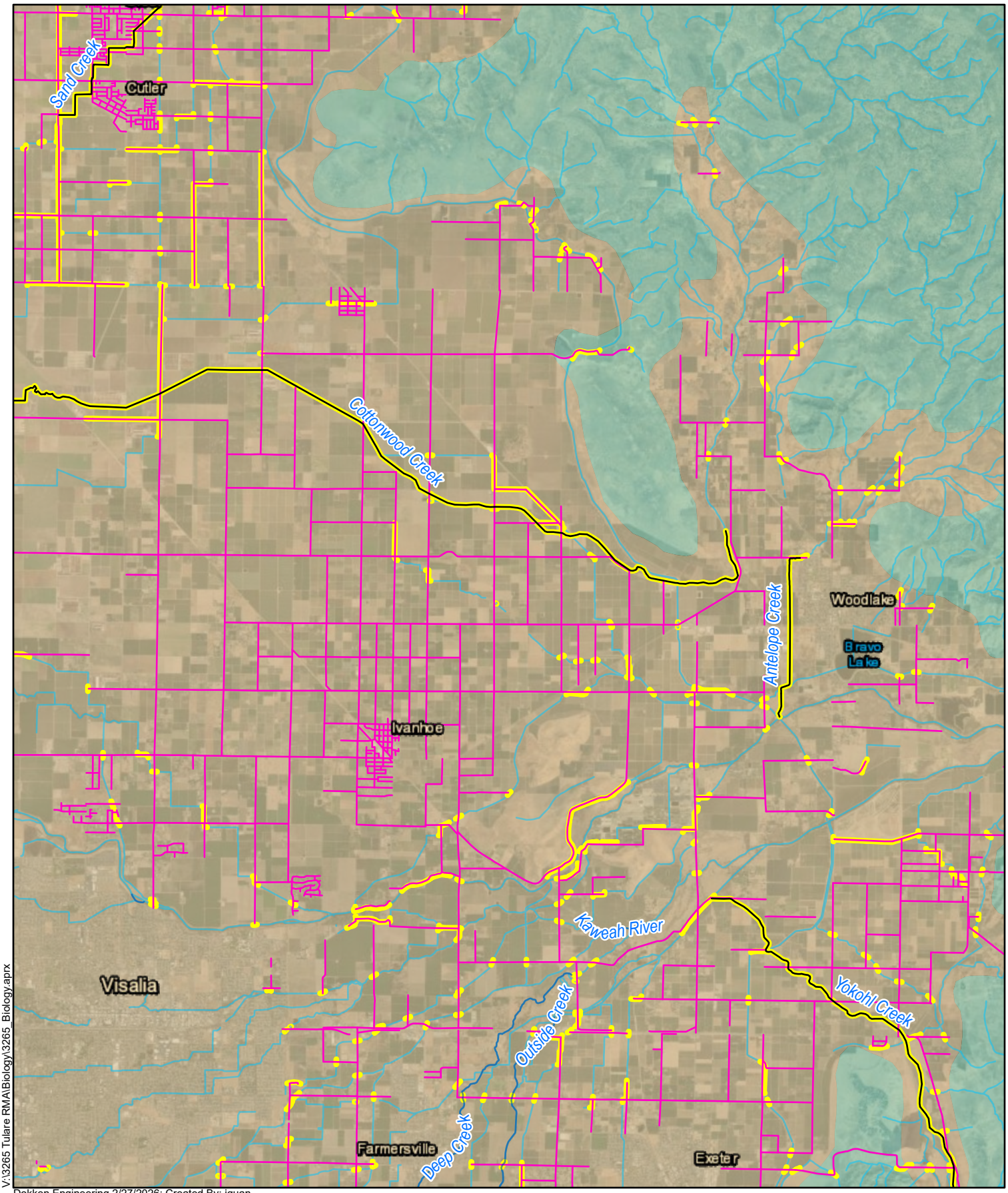


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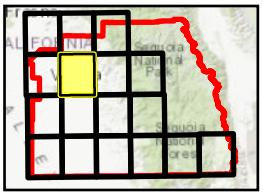
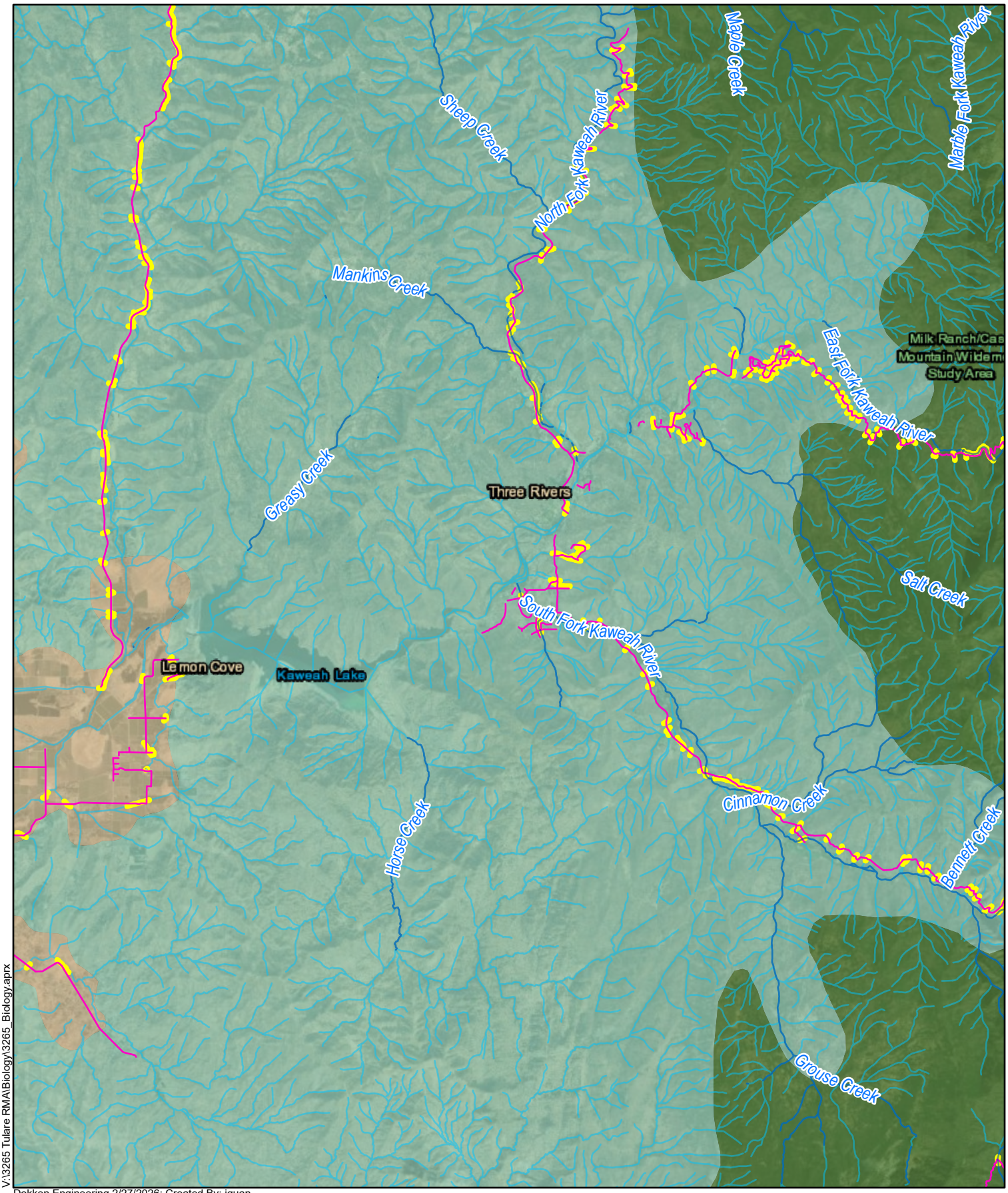


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Project Area
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Minor Streams
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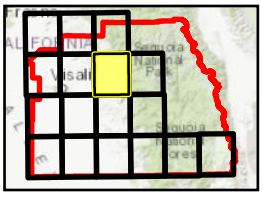
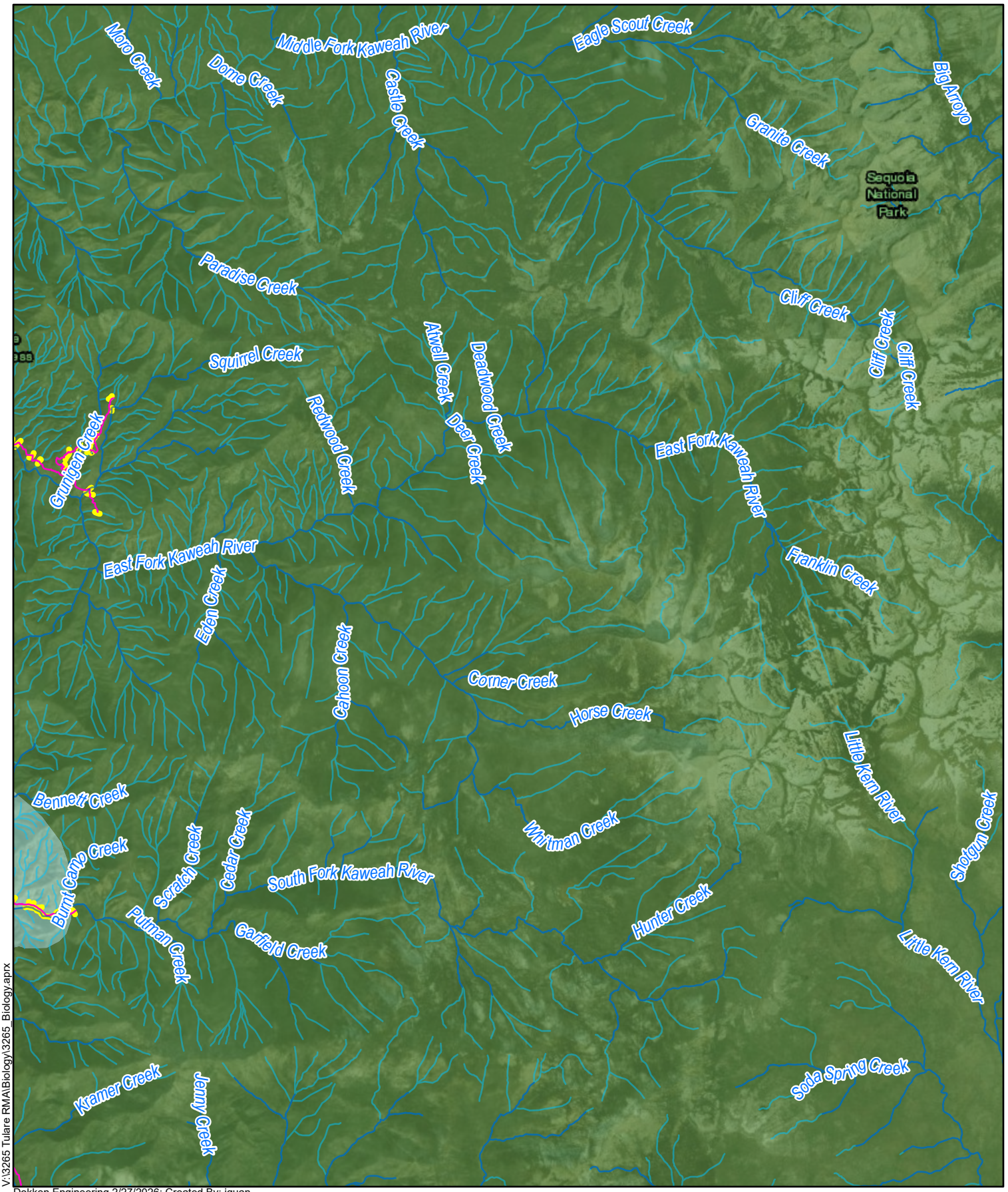


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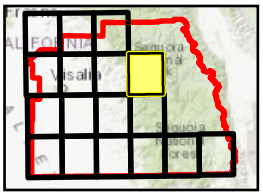
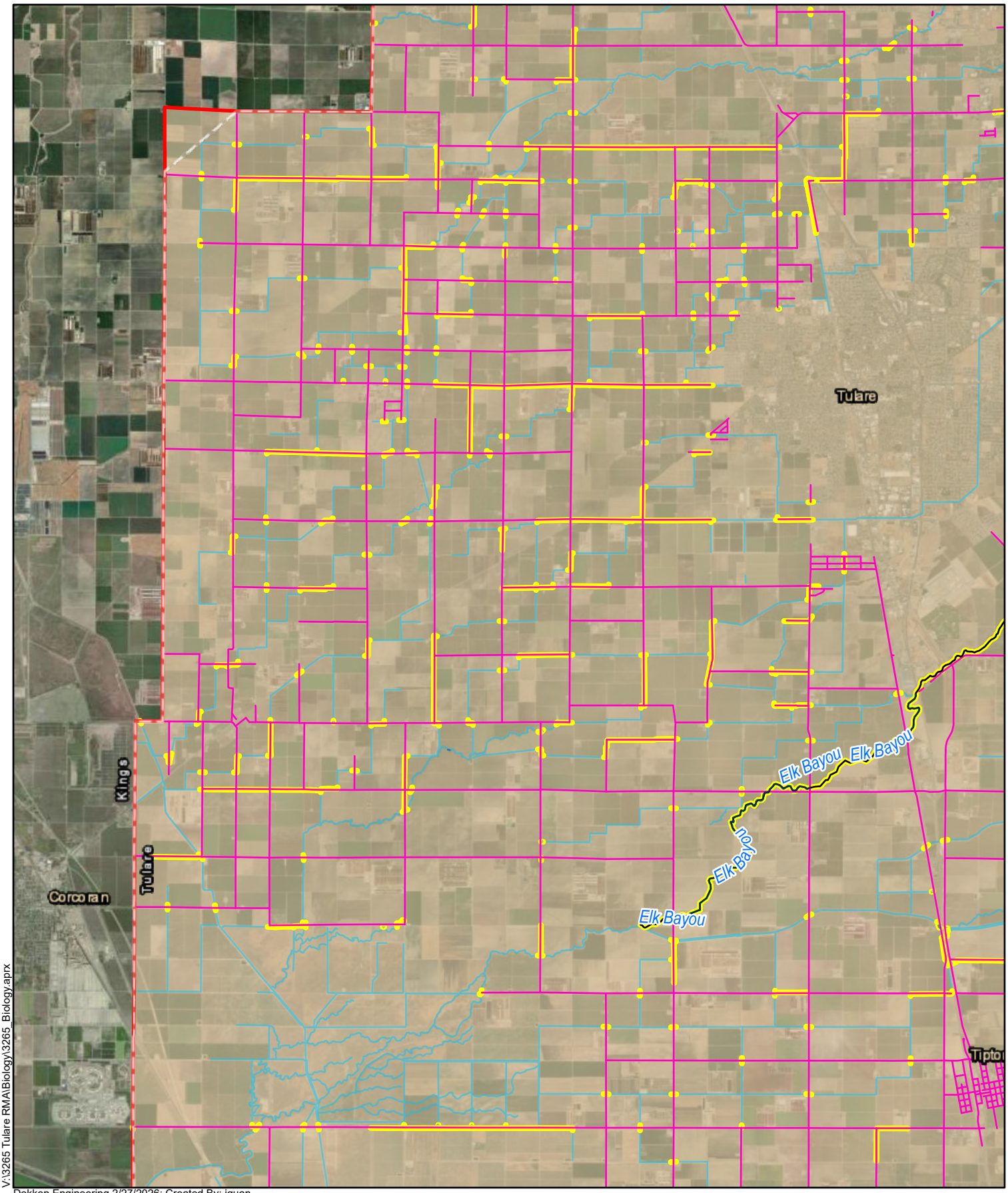


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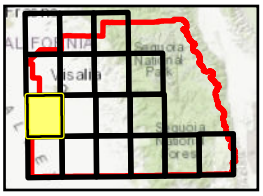
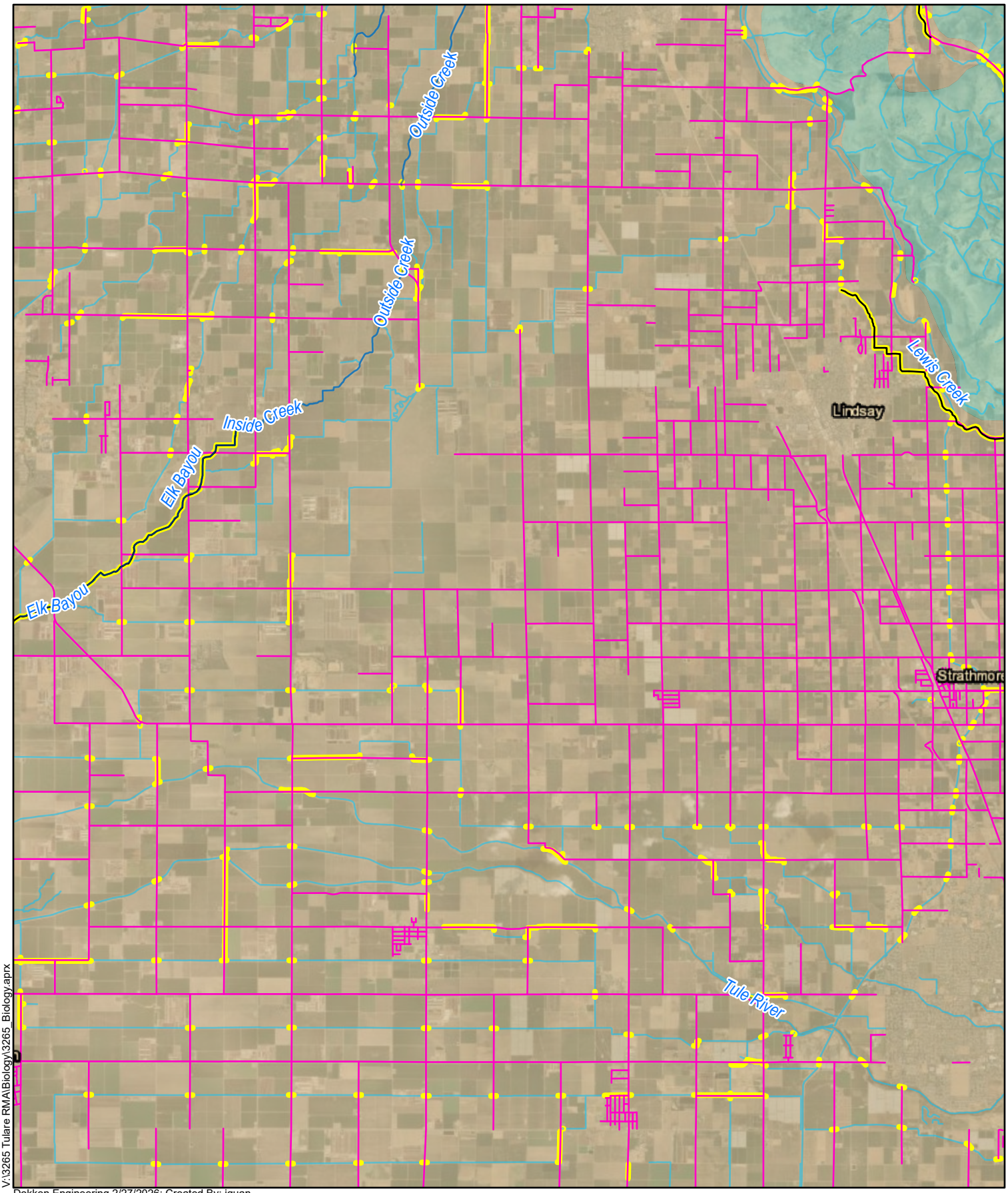


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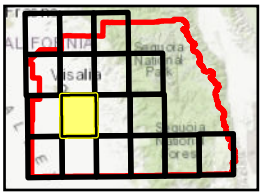
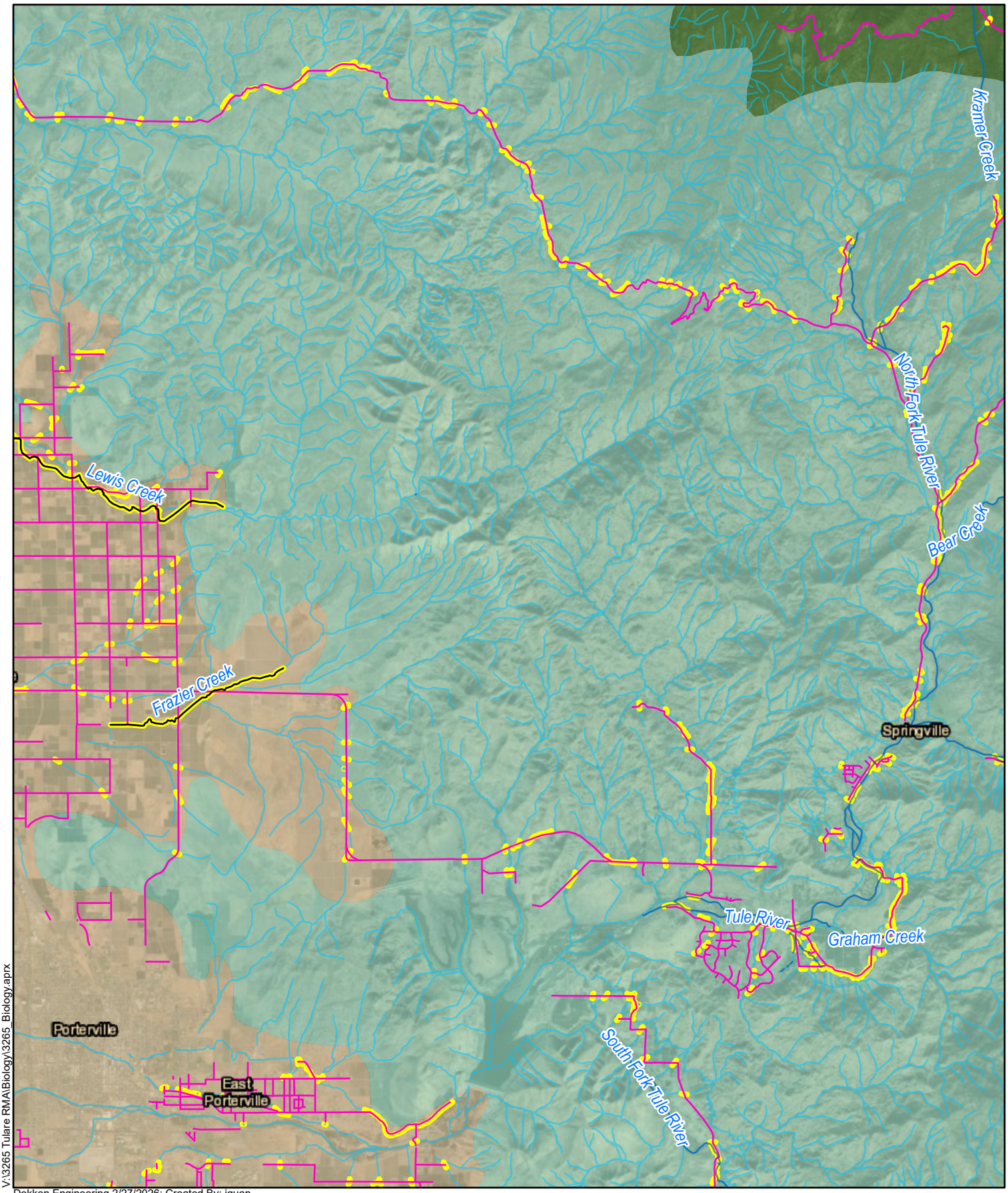


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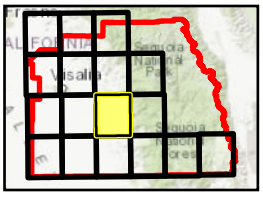
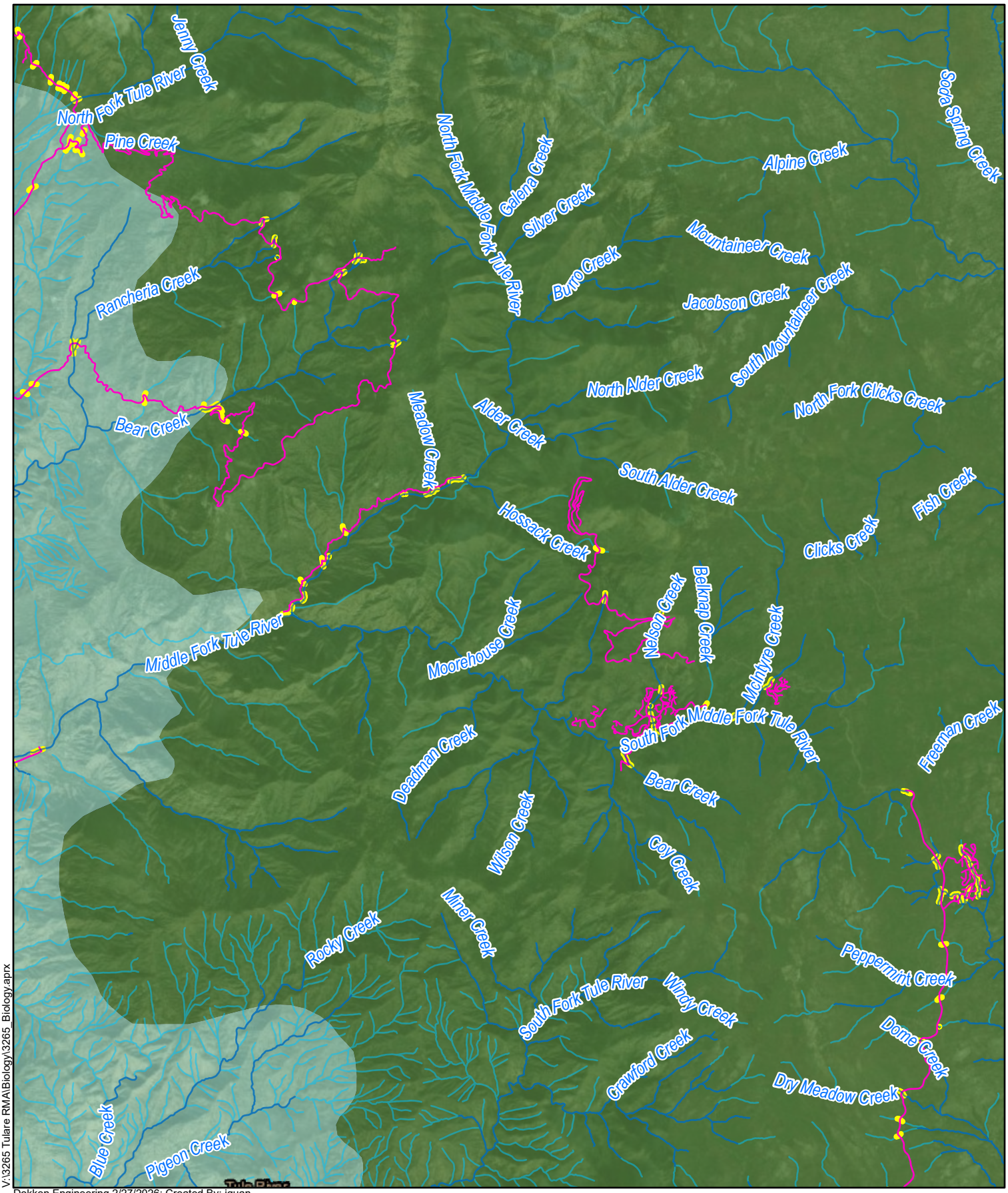


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CCF Ecoregion
SN Ecoregion

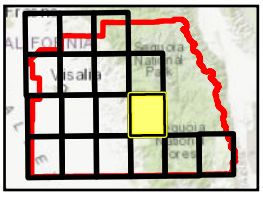
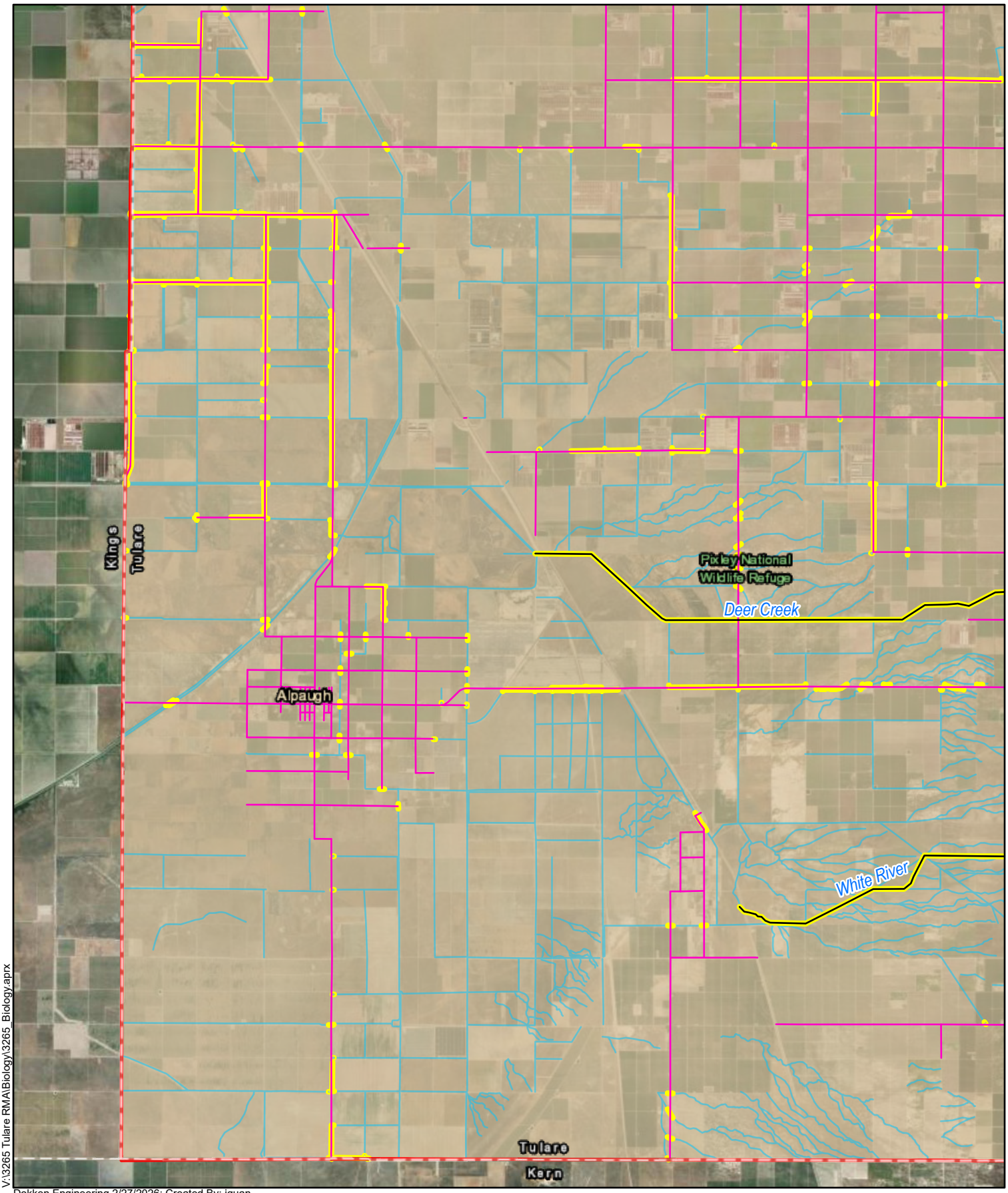


Figure 2
Ecoregions - Page 12 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
County-Maintained Creeks
Minor Streams
CCV Ecoregion

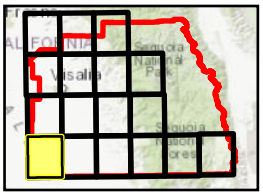
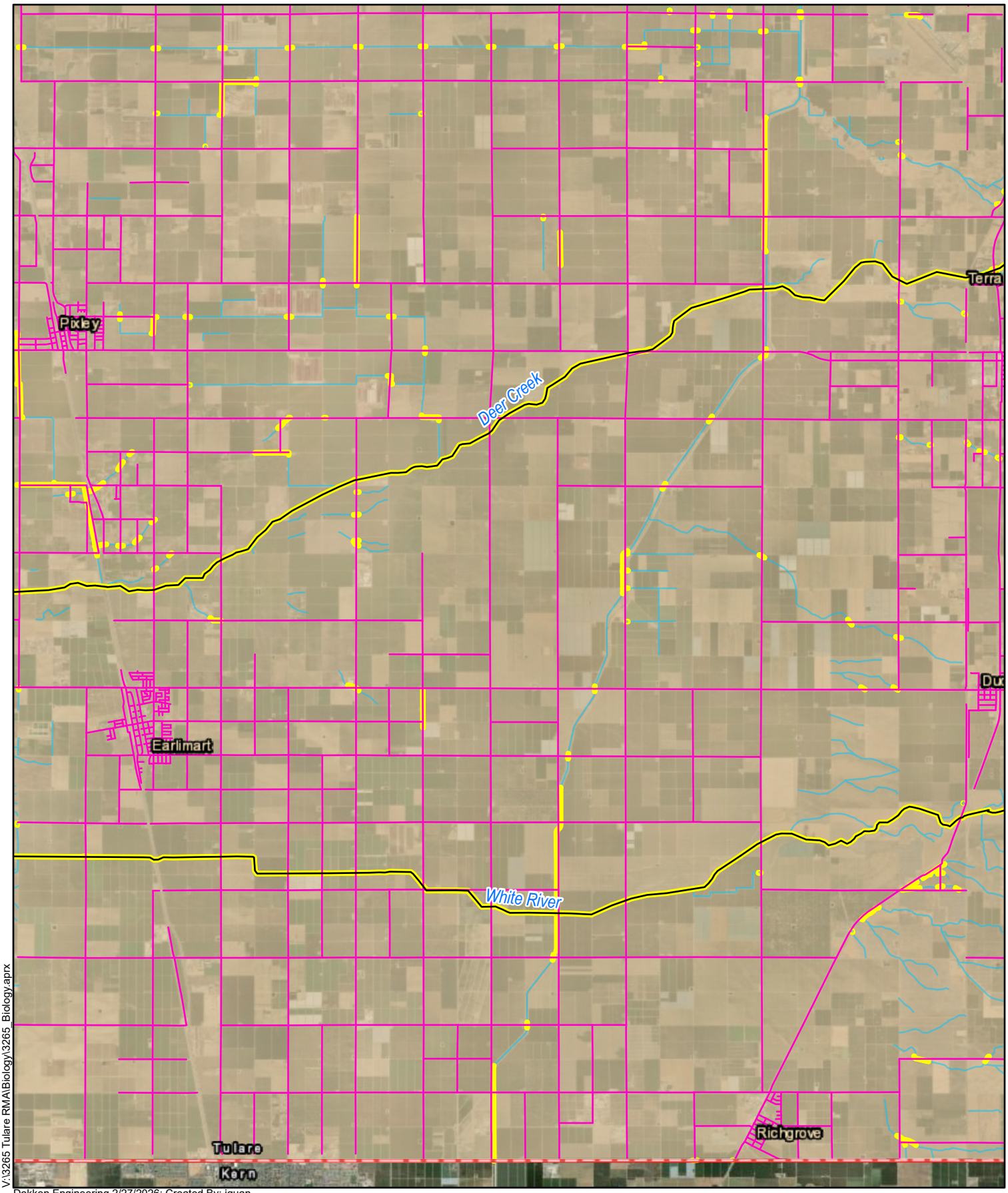


Figure 2
Ecoregions - Page 13 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
County-Maintained Creeks
Minor Streams
CCV Ecoregion

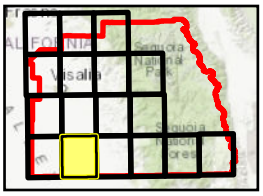
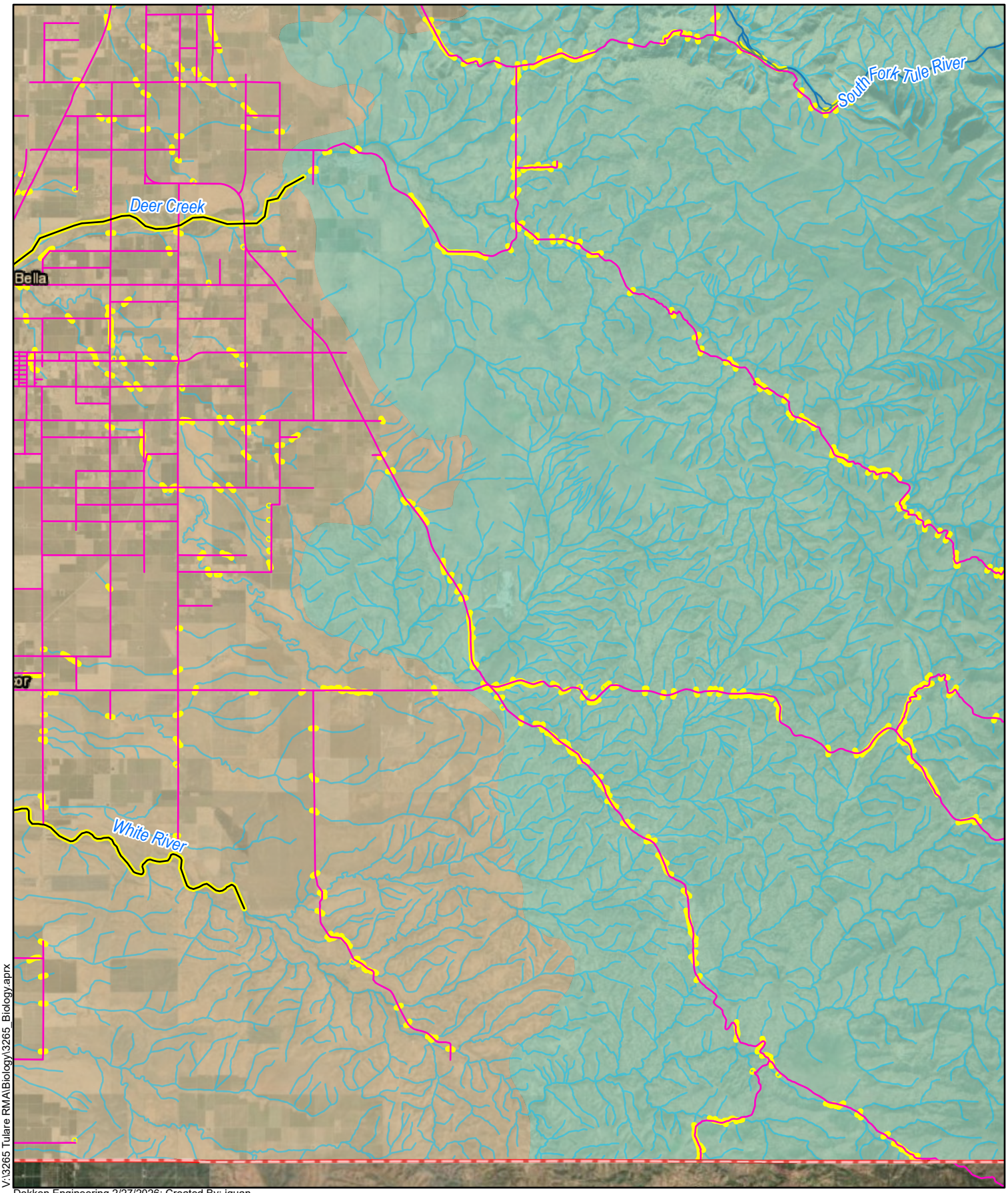


Figure 2
Ecoregions - Page 14 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
County-Maintained Creeks
Major Streams
Minor Streams
CCF Ecoregion
CCV Ecoregion

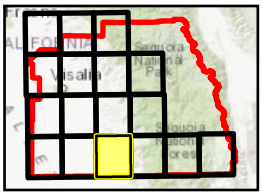
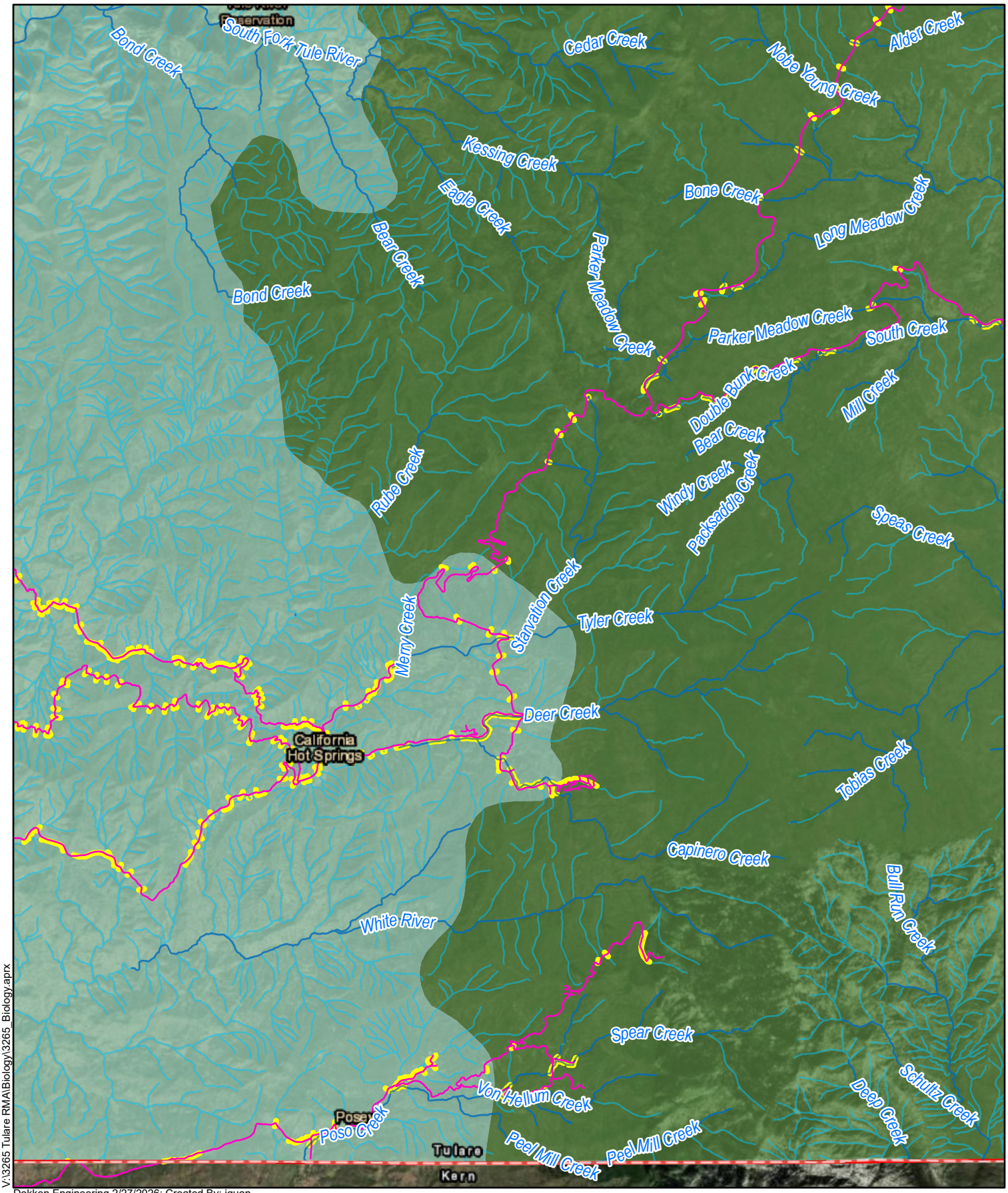


Figure 2
Ecoregions - Page 15 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
Major Streams
Minor Streams
CCF Ecoregion
SN Ecoregion

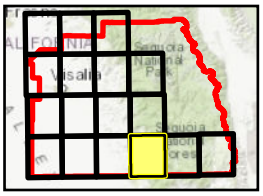
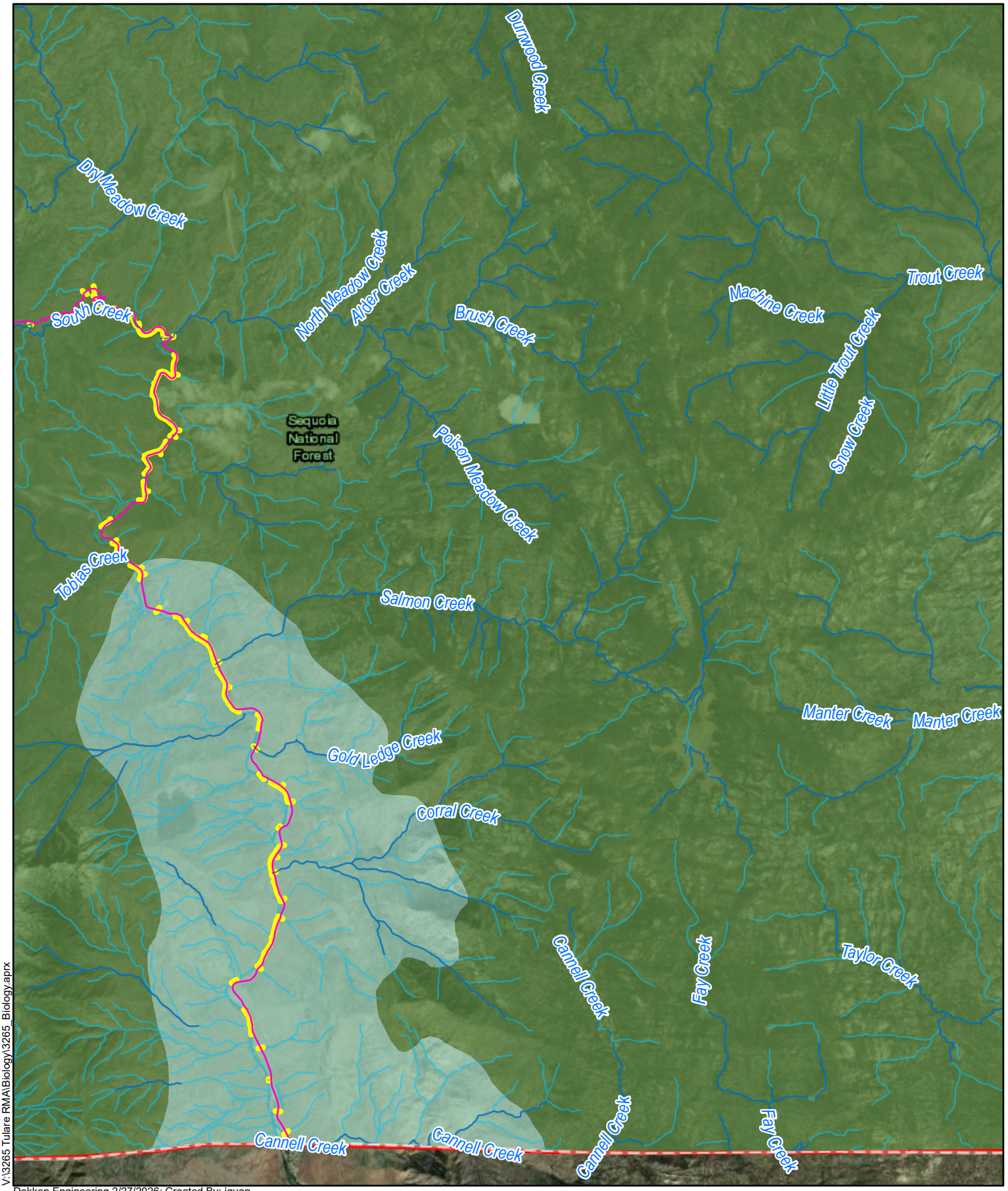


Figure 2
Ecoregions - Page 16 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
Major Streams
Minor Streams
CCF Ecoregion
SN Ecoregion

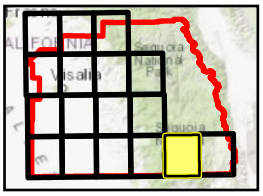
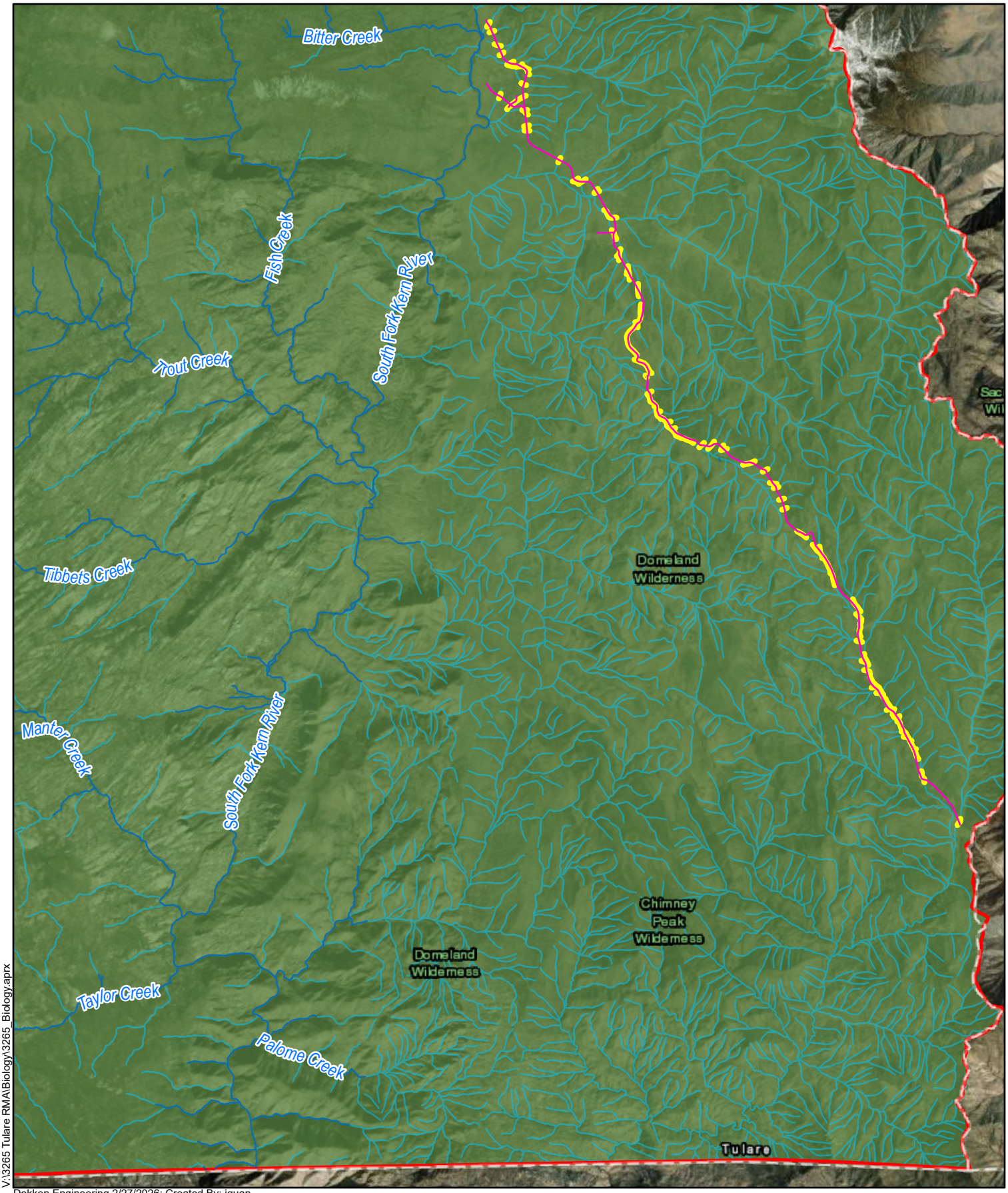


Figure 2
Ecoregions - Page 17 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles



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Tulare County
Project Area
County-Maintained Roads
Major Streams
Minor Streams
SN Ecoregion

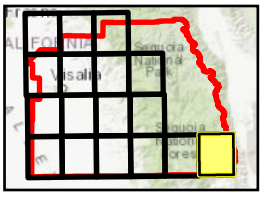
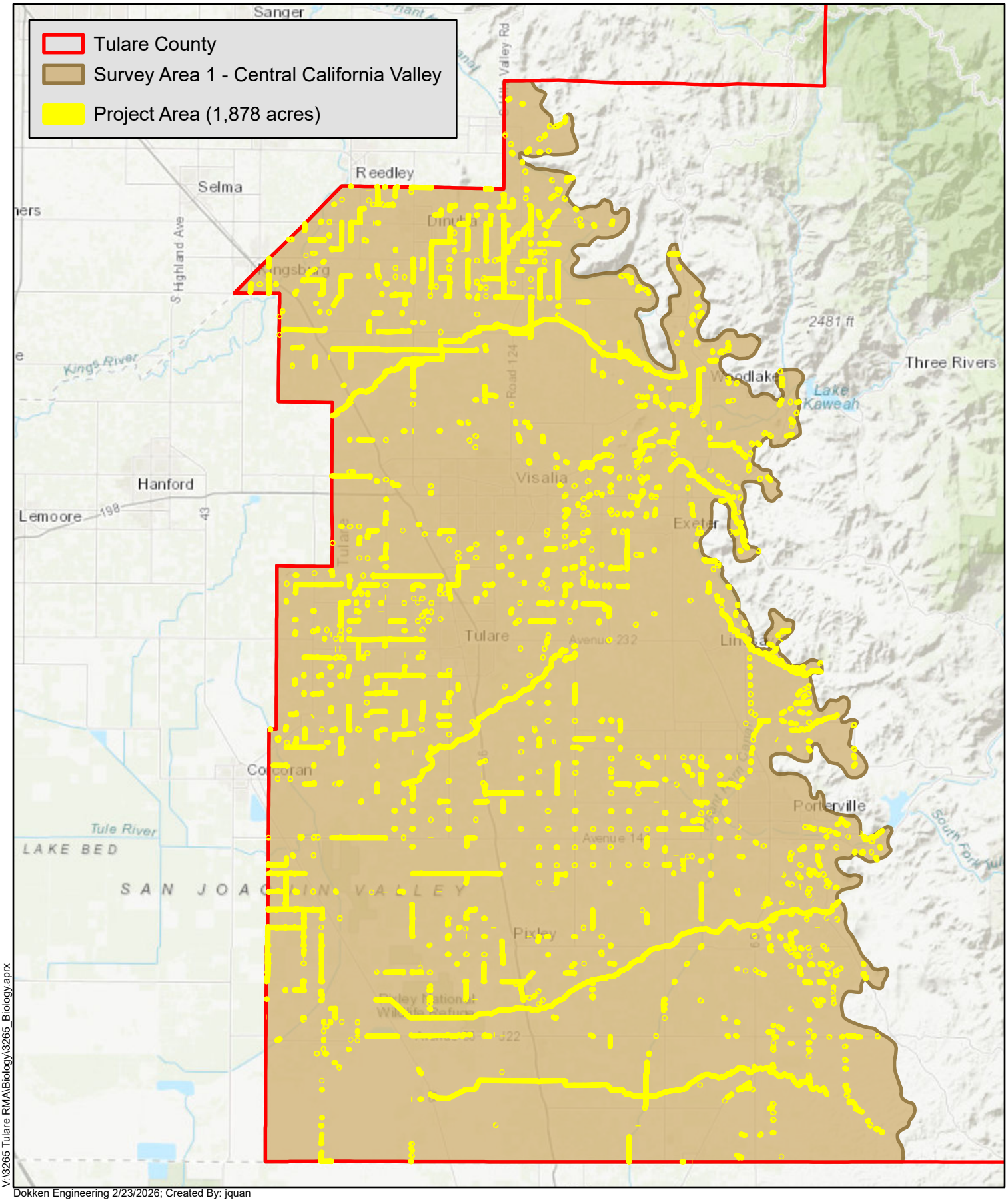


Figure 2
Ecoregions - Page 18 of 18
Tulare County Routine Maintenance Agreement
Tulare County, California

0 1 2 Miles

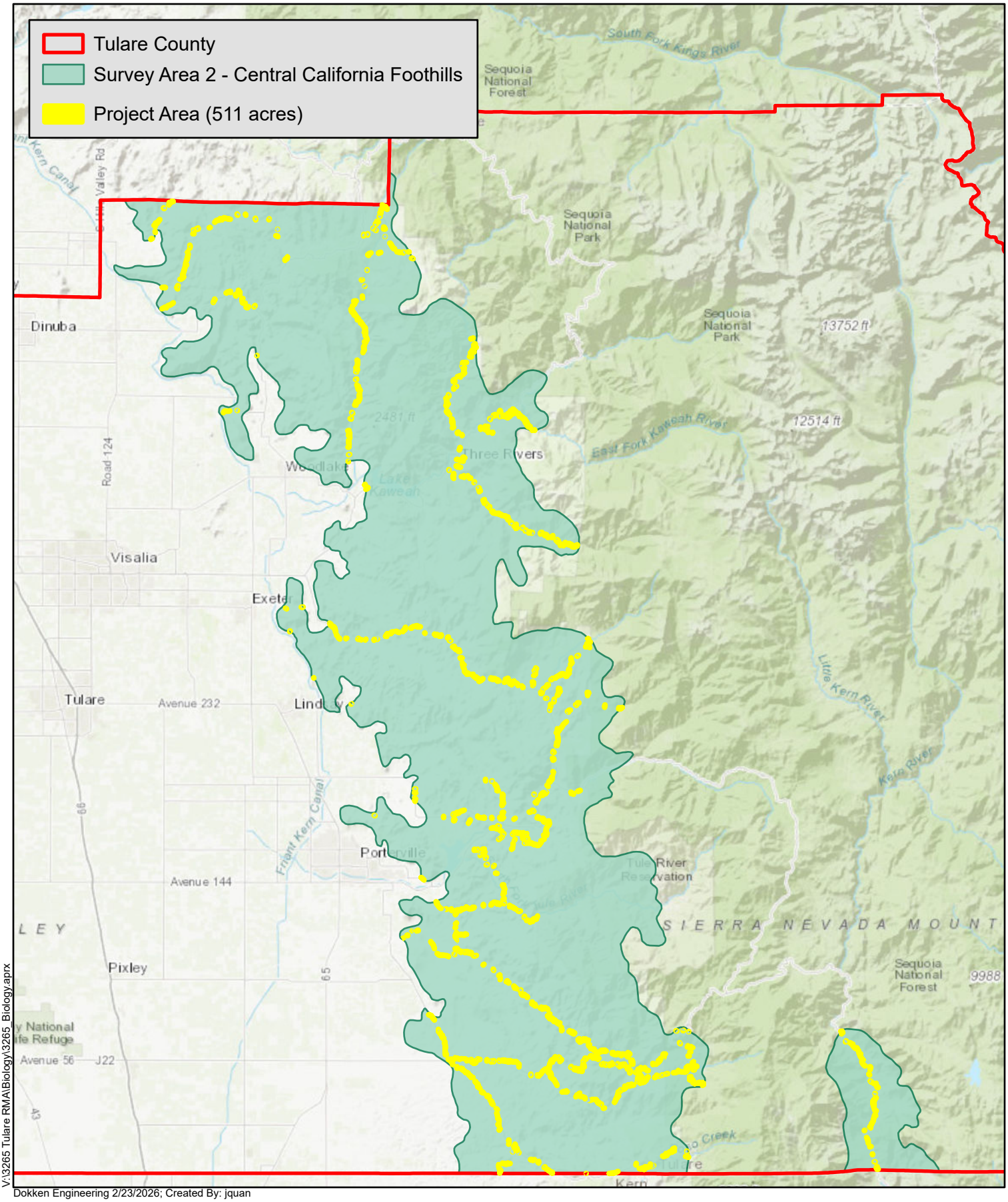


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0 3.5 7 Miles

Figure 3 - Survey Areas
Survey Area 1 - Central California Valley Ecoregion
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Tulare County, California



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0 4 8 Miles

Figure 3 - Survey Areas
Survey Area 2 - Central California Foothills
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Tulare County, California

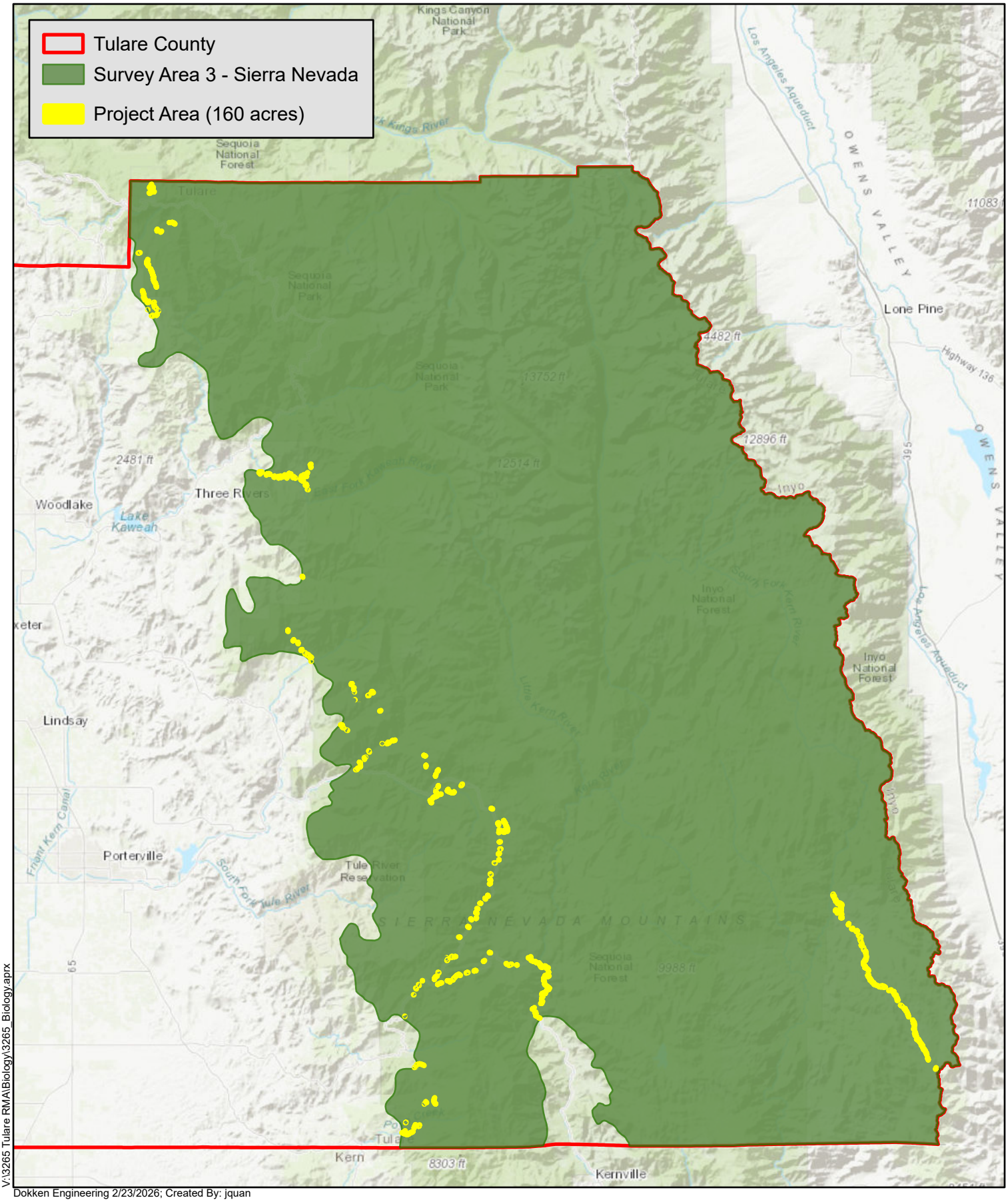
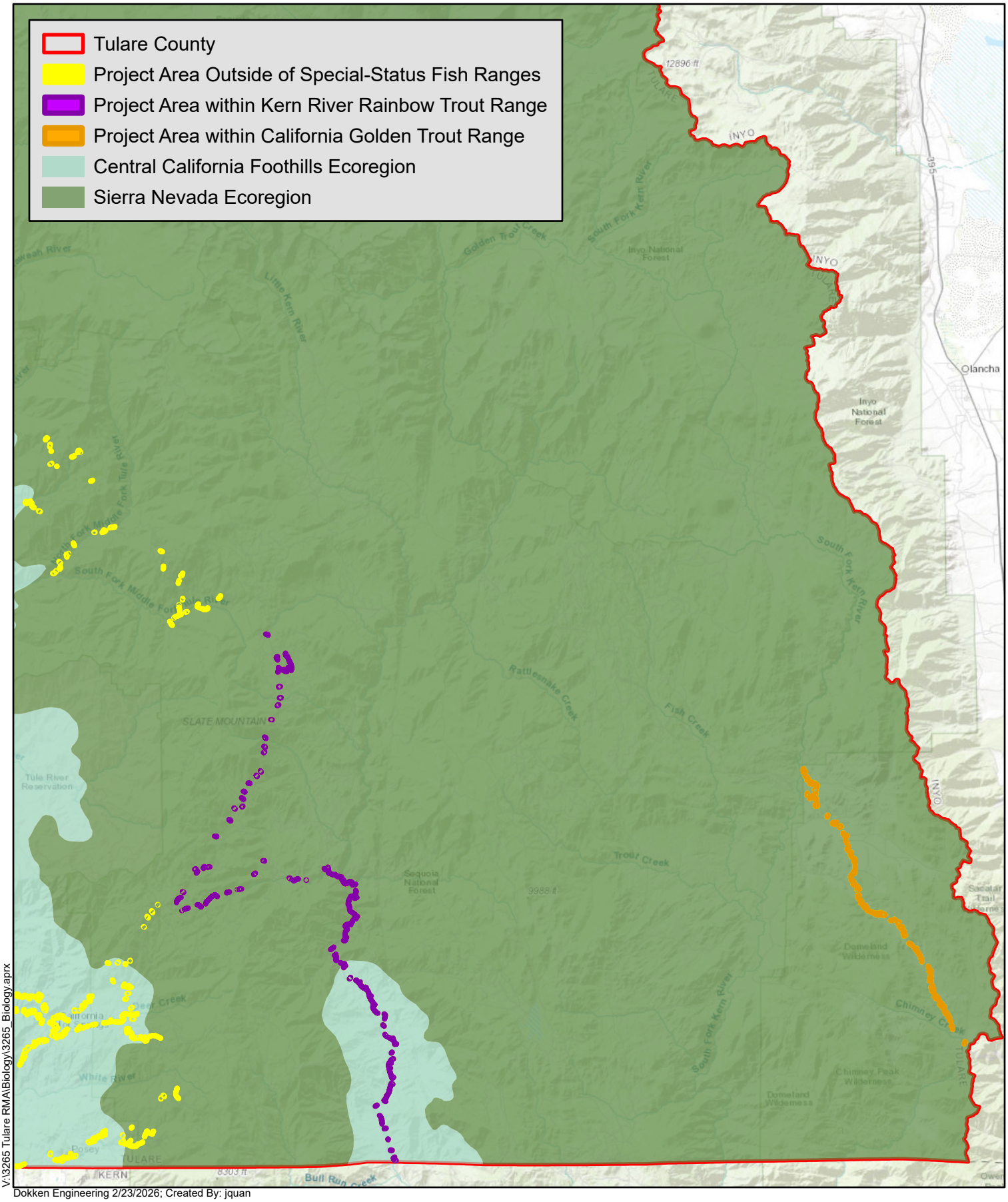


Figure 3 - Survey Areas
Survey Area 3 - Sierra Nevada Ecoregion
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Tulare County, California



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0 3 6 Miles

Figure 4
Project Area within Special-Status Fish Ranges
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Tulare County, California