



U.S. Department of Housing and Urban Development

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Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

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| Project Name: | The County of Yuba Roadside Fuel Reduction Project |
| Responsible Entity: | County of Yuba Department of Planning 915 8th Street, Suite 123 Marysville, CA 95901 |
| Grant Recipient (if different than Responsible Entity): | |
| State/Local Identifier: | N/A |
| Preparer: | ECORP Consulting, Inc. Mike Martin, Senior Environmental Planner mmartin@ecorpconsulting.com Phone: 530-965-5917 |
| Certifying Officer Name and Title: | Michael Lee, Community Development and Services Agency Director |
| Consultant (if applicable): | ECORP Consulting, Inc. |
| Direct Comments to: | Ciara Fisher, Planner III County of Yuba fisher@CO.YUBA.CA.US Office: 530-749-5463 |
| Project Location: | Yuba County, California. |

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The County of Yuba is undertaking a roadside fuel reduction project addressing 45.7 centerline miles of rural roads in the forested portions of the Sierra foothills of Yuba County. This project includes 18 road segments serving a total of seven at-risk communities. The 18 road segments proposed for fuel reduction include the following: Baker Road (from Garden Valley to end), Youngs Hill Road (Entire Length), La Porte Road (Woodleaf Tunnel Road to Oregon Hill Road), La Porte Road (Scale Road to Barton Hill Road), Marysville Road (Moonshine Road to SR 49), Frenchtown Dobbins Road (Entire Length), Frenchtown Road (Willow Glen Road to Frenchtown-Dobbins Road), Oregon Hill Road (Marysville Road to Moran Road), Mountain House Road (Cleveland Avenue to County Line), Challenge Cutoff Road (County line to La Porte Road), Indiana Ranch Road Indy New York Road to Forsythe Road), Indiana School Road (Indiana Ranch Road to Marysville Road), Pendola Road (Garden Valley Road to Old Camptonville Road), and Cleveland Avenue (SR 49 to Mountain House Road). The project includes the removal of brush and trimming of trees within 10 to 12 feet of the roadways and in the County right-of-way (ROW). No removal of trees is required, only trimming. All removed vegetation will be chipped and left in place. No excavation is proposed.

All construction staging areas are within the existing County roadway right-of-way. Proposed construction equipment includes masticators, chainsaws, and hand trimmers. Work schedule: Mon-Fri 7 am – 6 pm.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The purpose of the project is to create fuel breaks along County roadways, reduce fire spread to structures and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for residents. This project is needed because currently trees on either side of the roads encroach to the point where the canopies extend over the roads and vegetation encroaches up to the edge of the roadways, allowing fires to cross the roadways easily while also impeding ingress and egress to at-risk communities. This project would also benefit the potable water systems in Brownsville and Camptonville, and would help protect and preserve access to the Brownsville Aero Pines Airpark adjacent to La Porte Road in Brownsville. This roadside fuel reduction project will benefit the residents of hundreds of habitable structures.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The project road segments are within the foothills and mountains of Yuba County. The elevation of the road segments ranges from 1,620 feet above mean sea level (msl) at Indiana School Road to 4,050 feet above mean sea level at the La Porte Road (East) segment. The project area consists of the vegetation strip approximately 10 to 12 feet from the edge of pavement on the designated road segments and are all within the County roadway ROW. There are perimeter fences and undeveloped dirt roads along portions of the various road segments. The surrounding land uses include rural residential, agricultural lands, and undeveloped private and public forest.

Funding Information

| Grant Number | HUD Program | Funding Amount |
|------------------|-------------|----------------|
| 17-MIT-RIP-17011 | CDBG | \$500,000 |
| | | |

Estimated Total HUD Funded Amount: \$500,000.

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$500,000.

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

| Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6 | Are formal compliance steps or mitigation required? | Compliance determinations |
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| STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6 | | |
| Airport Hazards 24 CFR Part 51 Subpart D | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <p>None of the project sites are located within runway clear zones of civil airports and clear zones and accident potential zones at military airfields. The nearest public airport is Oroville Municipal Airport, approximately 20 miles to the west of the closest project roadway segment. The nearest military airport is Beale Air Force Base, 18 miles southwest of the closest project site. The Brownsville Aero Pines Airpark, a private airport, is approximately 1/3 mile northwest of the French Town Rd/ Willow Glen Rd intersection. However, according to the Brownsville Aero Pines Airpark Comprehensive Land Use Plan (1992), those portions of French Town Road which are part of the project are not within the Clear Zone and the Approach/Departure Zone.</p> <ul style="list-style-type: none"> • Yuba County Airport Land Use Compatibility Plans (2011) • Sacramento Area Council of Governments (SACOG 2032) • Brownsville Aero Pines Airpark Comprehensive Land Use Plan (1992) |
| Coastal Barrier Resources | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <p>Does not apply. The project is not located on the coast and Coastal Barrier Resources do not apply in California.</p> |

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| Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501] | | |
| Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a] | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | The project does not involve mortgage insurance, refinance, acquisition, repairs, rehabilitation, or construction of a structure, mobile home, or insurable personal property. The proposed project consists of expanding existing fuel breaks by removing understory vegetation and small trees from within the fuel break alignment which is primarily situated along ridgelines. The project does not involve development or activities requiring flood insurance under the National Flood Insurance Program. The project would have no impact related to flood insurance. |
| STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5 | | |
| Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | An Air Quality and Greenhouse Gas Assessment was completed for the proposed project and is included as Attachment A. The proposed project region is designated as attainment or unclassified for all federal criteria pollutants. The emissions associated with the Project's implementation would be short-term and of temporary duration, lasting only as long as the vegetation reduction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds Conformity Determination thresholds established by the USEPA. The air quality analysis determined that the project would not exceed any USEPA conformity thresholds. <ul style="list-style-type: none"> • Air Quality and Greenhouse Gas Assessment (Attachment A) |
| Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d) | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | The proposed project is located in the Sierra Nevada mountains in Yuba County. No portion of the County or the mountain range in which the project is located are within 100 yards of a coast. <ul style="list-style-type: none"> • Coastal Zone as described in the California Coastal Act Public Resources Code Section 30103; California Coastal Commission 2020). |

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| <p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p> | <p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p> | <p>No contamination sites exist within or near the project area. The Cortese list by the California Environmental Protection Agency includes only three sites in Yuba County, none of which are located in the project area (DTSC 2023). The project would not be affected by or affect a hazardous materials site.</p> <ul style="list-style-type: none"> • California Department of Toxic Substance Control (DTSC). 2023. |
| <p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p> | <p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p> | <p>The Project is located in rural foothills in Yuba County, California. Surrounding land uses includes rural residential, agricultural, and undeveloped private and public forest. A Biological Resources Assessment (BRA) was completed for the project and included as Attachment B herein. Mitigation measures, including those for the protection of special-status species listed under the Endangered Species Act, have been identified and incorporated into the project to reduce all impacts to a less than significant level.</p> <ul style="list-style-type: none"> • Biological Resources Assessment (Appendix B) |
| <p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p> | <p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p> | <p>The project is located in a rural area, and above ground propane tanks are common. Propane is defined as a hazardous gas pursuant to 24 CFR 51.201 (Appendix I to Subpart C of Part 51). The proposed project to reduce roadside vegetation for fuel breaks would not involve any development, construction, or rehabilitation that would increase residential densities or conversion, nor does it include or involve a facility that stores, handles, or processes flammable or combustible chemicals. Therefore, the project would not result in inhabited structures being placed near explosive and flammable hazards. The project would not create a hazard to the public through the routine transport, use, or disposal of hazardous materials. The project would be in compliance with regulations pertaining to explosives and flammable hazards.</p> |
| <p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p> | <p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p> | <p>All project roadway segments are located in the foothills of the Sierra Nevada mountain range. A farmland analysis using the California Important Farmland Finder interactive mapping tool indicate that all of the roadway segments are within an area considered to be “grazing land” as identified</p> |

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| | | <p>by the California Department of Conservation (DOC). The proposed project consists of reducing roadside fuel by removing understory vegetation and limbing of trees and would not result in any activities that could convert agricultural land to nonagricultural uses. The project would not affect farmlands protection.</p> <ul style="list-style-type: none"> • California Department of Conservation (DOC). 2023 |
| <p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p> | <p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p> | <p>Executive Order 11988 applies to Floodplain Management. Floodplains are found along stream channels throughout the project area; however, project activities would not have an adverse impact on floodplains as all project vegetation removal would not impede flood flows, would not result in an increase in the potential of flooding or cause the destruction of existing structures or result safety concerns to people as a result of an increase in flooding. The proposed project design avoids any aquatic features, therefore would not have impacts to floodplain management.</p> |
| <p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p> | <p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p> | <p>Existing buildings would not be impacted by project activities, therefore, the project would result in No Effect to Built Environment Historic Resources. ECORP Consulting, Inc. completed a desktop review of the Area of Potential Effect (APE), which consisted of a records search at the North Central Information Center (NCIC) and Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS) of the California Office of Historic Preservation.</p> <p>A records search request was sent to the NCIC and NEIC by ECORP Consulting, Inc. on May 17, 2023. A records search through the CHRIS system includes a review of the state archaeological site files, the National Register of Historic Places, and other databases that catalogue significant events and resources in local, state, or national history. The results of the records search were received from the NCIC and NEIC on May 24, 2023 and May 22, 2023. The records search identified 23 resources within the APE and 89 within a 500 foot radius of project boundaries. Previously recorded resources within the APE and 500-foot radius include water conveyance ditches, historic-era</p> |

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| | | roads, pre-contact habitation sites, pre-contact lithic scatters and bedrock mortars, historic-era canals, buildings, mining, structural remains, and transmission lines. Existing buildings would not be impacted by project activities, therefore, the project would result in No Effect to Built Environment Historic Resources. However, mitigation measures have been identified for the protection of known and unknown cultural resources and incorporated into the project to reduce all impacts to a less than significant level. |
| Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | <p>A noise impact assessment was completed by ECORP Consulting for the project and included as Attachment C. The proposed project is in a rural/forested area and project activities are not a “noise sensitive use” under HUD regulations. The project area is not considered to be urban, however, several of the treatment areas occur on or near private properties with residences. Sensitive receptors include the residents on private properties and recreational users near treatment areas. During the project activities, there would be temporary noise increases from the use of mechanical mastication and piling equipment, chainsaws, chippers, pole saws, and hand tools. The noise increases would be for only the duration of the work and would vary depending on the treatment activity’s location and the equipment being used. For purposes of this analysis, the noise associated with the Project’s implementation is compared to the allowable hours of construction mandated by the County of Yuba County Code Section 8.20.310, as well as the NIOSH standard of 85 dBA for more than 8 hours per day, since the activity for the proposed project is anticipated to span a typical workday of 8 hours daily. The noise analysis determined that the project’s activities would not exceed the 85 dBA NIOSH construction noise threshold at the closest nearby noise-sensitive receptors. As such, the project would have a less than significant noise impact.</p> <ul style="list-style-type: none"> • Noise Impact Assessment (Attachment C) |
| Sole Source Aquifers | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | No sole source aquifers occur in the project area. The USEPA interactive map of sole source aquifer locations were reviewed on August 20, 2023 (USEPA 2023). The project is |

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| Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149 | | located in Yuba County and the nearest sole source aquifer is located in Fresno County, approximately 160 miles south of the nearest roadside vegetation treatment. The project would not affect a sole source aquifer. <ul style="list-style-type: none"> • USEPA (2023) Sole Source Aquifers |
| Wetlands Protection Executive Order 11990, particularly sections 2 and 5 | Yes No <input checked="" type="checkbox"/> <input type="checkbox"/> | Aquatic features were delineated by ECORP biologists in order to generate maps to exclude those aquatic features from the work area. All aquatic features would be avoided by project design. Additionally, fueling activities would be conducted more than 100 feet from potentially jurisdictional aquatic features identified in the project BRA. <ul style="list-style-type: none"> • Biological Resources Assessment (Attachment B) |
| Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c) | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | The Middle Fork of the Feather River is the closest water body designated as a Wild and Scenic River to the project. The closest project road segment to the Middle Fork of the Feather River is approximately 20 miles to the south. No treatment activities will be visible from the Wild and Scenic Middle Fork of the Feather River. The project would have no adverse impact on the Wild and Scenic River. <ul style="list-style-type: none"> • National Wild and Scenic Rivers System. 2023 |
| ENVIRONMENTAL JUSTICE | | |
| Environmental Justice Executive Order 12898 | Yes No <input type="checkbox"/> <input checked="" type="checkbox"/> | The proposed project would not lead to higher concentrations of low-income persons or place low-income families into areas that are unhealthy. The project is for the maintaining of roadside vegetation for fire safety purposes and would be located in various areas in the County and would only be on a temporary basis. As soon as vegetation maintenance activities are complete the project would cease. |

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is

attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
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| LAND DEVELOPMENT | | |
| Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design | 2 | The proposed project would consist of a series of roadside fire fuels reduction actions in the form of vegetation management to protect communities in Yuba County from wildfire, ensure that evacuation routes are passable, and to minimize the spread of fires originating in developed areas while supporting fire resilient landscapes. The project would have no impact on existing land use plans or zoning. |
| Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff | 2 | The project does not involve ground disturbance and only consists of vegetation reduction and limbing of trees. Soil erosion and sedimentation and other effects on water quality as a result of the project would be negligible. No mitigation associated with soil suitability, slope, erosion, drainage, or storm water runoff would be required. The project may have a beneficial effect on erosion and water quality in the region due to the reduction in the potential for wildfires. Implementation of the project would allow opportunities to control the spread of wildfires and would reduce the risk of high severity wildfires which may cause erosion and adversely affect water quality. |
| Hazards and Nuisances including Site Safety and Noise | 2 | The purpose of the project is to clear a series of road segments suffering from excess and overgrown vegetation. This would ensure the road could stay clear and provide a safe evacuation route in the event of a wildfire. In this regard the proposed project would be beneficial and reduce hazards and promote safety in the region. The project would not create a hazard to the public through the routine transport, use, or disposal of hazardous materials. All hazardous materials used for equipment would be disposed of in accordance with applicable federal, state, and local requirements. The project would not require soil excavation or structures associated with hazardous materials sites. The project would not include road closures or generate substantial traffic that would create a hazard. Temporary lane closures could occur along rural roads, however, the implementation would not interfere with any |

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| | | <p>adopted emergency response or evacuation plan. Several of the treatment areas occur on or near private properties with residences. During the treatment activities, there would be temporary noise increases from the use of power tools, equipment, and other non-powered hand-tools. Sensitive receptors include the residents on private properties and recreational users near active treatment areas. The noise increases would be for only the duration of the work and would vary depending on the treatment activity's location and the equipment being used. All activities would be limited to the daytime hours (7:00 a.m. to 7:00 p.m. weekdays) when people are less sensitive to noise. Any contractor will be required to comply with all applicable noise and occupational safety standards as defined in the contract specifications, and to protect workers and other persons from the health effects of increased noise levels from the use of equipment. The anticipated noise from this activity would be negligible, and the project incorporates specifications which would prevent nuisances associated with noise. No mitigation associated with hazards, site safety, or noise would be required.</p> |
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| Environmental Assessment Factor | Impact Code | Impact Evaluation |
|---|-------------|---|
| SOCIOECONOMIC | | |
| Employment and Income Patterns | 2 | The project would have no impact to employment and income patterns. The project consists of vegetation management in order to ensure safe passage through evacuation routes in the event of wildfire. The project's intent is to serve the rural community and contribute to the safety of its residents. |
| Demographic Character Changes, Displacement | 1 | Implementation of the project would result in a beneficial impact by reducing the potential for displacement as a result of wildfires in the region, and helping to ensure that residents of these rural communities can safely evacuate the area in the event of wildfire. |
| Environmental Justice | 1 | The project would not lead to higher concentrations of low-income persons or place low-income families into areas that are unhealthy. The proposed project may help protect all county residents, including low income persons and communities, by ensuring roads would be clear for evacuation in the event of wildfire. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
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| COMMUNITY FACILITIES AND SERVICES | | |
| Educational and Cultural Facilities | 1 | The project would not involve the modification of any educational or cultural facility. The proposed project has the potential to benefit educational and cultural facilities through |

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| | | reducing wildfire threats to these facilities. No adverse impacts would occur. |
| Commercial Facilities | 1 | The project would not involve the modification of any commercial facility. The proposed project has the potential to benefit commercial facilities through reducing wildfire risk to these facilities. No adverse impacts would occur. |
| Health Care and Social Services | 2 | The project would have no impact on health care and social services. The project consists of vegetation management in order to ensure safe passage through evacuation routes in the event of wildfire. |
| Solid Waste Disposal / Recycling | 2 | The project would have no impact on solid waste disposal/recycling as the project does not result in the increase of solid waste or additional need for recycling. The project consists of vegetation management in order to ensure safe passage through evacuation routes in the event of wildfire. |
| Waste Water / Sanitary Sewers | 2 | The project would have no impact on wastewater or sanitary sewers. The project consists of vegetation management in order to ensure safe passage through evacuation routes in the event of wildfire. |
| Water Supply | 2 | The project consists of vegetation management in order to ensure safe passage through evacuation routes in the event of wildfire. The project would have no impact on a community's water supply. |
| Public Safety - Police, Fire and Emergency Medical | 1 | The purpose of the project is to clear away overgrown vegetation from roadsides to ensure safe evacuation routes, reduce the spread of fires originating in developed areas, and support fire resilient landscapes. In this regard the proposed project would aid in promoting public safety and the safety of fire fighters through creating a safer defensible space to fight fire. Additionally, clear and safe roadways would support police and emergency medical services to assist the people in the community. |
| Parks, Open Space and Recreation | 2 | The project consists of vegetation management along county roadways. The project would not affect established parks, open space, or recreation areas but only temporarily affect roadways right-of-ways during vegetation management activities. |
| Transportation and Accessibility | 1 | The proposed project may include temporary lane closures on rural roads. The proposed project would not conflict with any transportation plan, ordinance or policy. Encroachment permits would be required prior to working within a County right-of-way. The project would not result in inadequate emergency access or create design hazards, the project would not have a significant impact on transportation. The proposed project would have a beneficial to transportation and accessibility in that the project would create safer routes for evacuation in the event of wildfire. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
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| NATURAL FEATURES | | |
| Unique Natural Features, Water Resources | 2 | <p>The project has the potential to affect water resources. The following mitigations are incorporated into the project design to avoid impacts to potentially jurisdictional aquatic features:</p> <p>The Project will avoid removing vegetation within riparian areas that directly abut potentially jurisdictional aquatic features identified in the BRA. In addition, the Project will avoid adding fill (i.e., any Project related materials) to potentially jurisdictional aquatic features.</p> <p>Fueling of equipment will be conducted more than 100 feet from potentially jurisdictional aquatic features identified in the BRA.</p> |
| Vegetation, Wildlife | 2 | The project has the potential to affect special-status plants, amphibians, and nesting birds. Mitigation measures to protect these resources have been incorporated into the project to minimize or completely avoid impacts to those species. |
| Other Factors | 2 | None identified. |

| Environmental Assessment Factor | Impact Code | Impact Evaluation |
|---------------------------------|-------------|--|
| CLIMATE AND ENERGY | | |
| Climate Change Impacts | 1 | <p>Wildfires can be a source of carbon dioxide emissions that contribute to GHGs. While emissions from wildfires vary depending on the severity and frequency of the fires, changes in the fire severity and frequency can also lead to net changes in atmospheric carbon dioxide (Wiedinmyer and Neff 2007). The proposed project would reduce fuels in the project area and provide improved opportunities for fire fighters to access and control the spread of wildfires through the area which may contribute to an overall beneficial effect on GHGs and climate change.</p> <p>Currently, there are no thresholds of significance established by the USEPA by which to evaluate Projects under NEPA. Furthermore, at the federal level, there are no standards or regulations regarding GHG emissions. An Air Quality and Greenhouse Gas Assessment was completed for the proposed project and is included as Attachment A. This analysis determined that the project would generate GHG emissions for worker commute trips, haul trucks carrying supplies and materials to and from the various project site areas, and off-road construction equipment. Project implementation would result in the generation of a total of approximately 9 metric tons of CO₂e over the course of the project. Once construction is complete, the generation of these GHG emissions will cease.</p> |

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| | | <p>In conclusion, while recognizing the importance GHG emissions and their impact on climate change, the proposed project's proactive measures to address wildfire risk and protect the County's vulnerable communities present a compelling foundation for its implementation. As such, the project's GHG emissions would not result in a significant impact on global climate change.</p> <ul style="list-style-type: none"> • Air Quality and Greenhouse Gas Assessment (Attachment A) • Wiedinmyer and Neff 2007 |
| Energy Efficiency | 2 | <p>While implementation activities would result in the temporary consumption of energy resources in the form of vehicle and equipment fuels (gasoline and diesel fuel), such consumption would be temporary and would not have the potential to have a significant impact on energy consumption. No mitigation associated with energy consumption would be required.</p> |

Additional Studies Performed:

- Air Quality/GHG Assessment, ECORP Consulting Inc., 2023 (Attachment A)
- Biological Resources Assessment, ECORP Consulting, Inc., 2023 (Attachment B)
- Noise Assessment, ECORP Consulting Inc., 2023 (Attachment C)

Field Inspection (Date and completed by):

- ECORP biologists Daniel Machek and Aly Johnson conducted reconnaissance-level field surveys for the Study Area on May 10, 16, 18, and 25, 2023.

List of Sources, Agencies, and Persons Consulted [40 CFR 1508.9(b)]:

California Coastal Commission. 2020. California Coastal Act Public Resources Code Section 30103.

California Department of Conservation (DOC) 2023. Important Farmland Finder.
<https://maps.conservation.ca.gov/DLRP/CIFF/>

Department of Toxic Substances Control (DTSC). 2023. EnviroStor database.
<https://www.envirostor.dtsc.ca.gov/public/>

National Wild and Scenic Rivers System. 2023. National Wild and Scenic Rivers System.
<https://www.rivers.gov/>

Sacramento Area Council of Governments (SACOG). 2023. Brownsville Aero Pines Airpark Comprehensive Land Use Plan (1992) https://www.sacog.org/sites/main/files/file-attachments/brownsville_aero_pines_clup_amend_dec_1992_-_93-011.pdf?1456342554

United States Environmental Protection Agency (USEPA) 2023. Sole Source Aquifers.
<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>

Wiedinmyer, C., & Neff, J. C. (2007). Estimates of CO₂ from fires in the United States: Implications for carbon management. *Carbon Balance And Management*.

Yuba County. (2011) Airport Land Use Compatibility Plans.

https://www.yuba.org/departments/community_development/planning_department/document_library.php#outer-3285

List of Permits Obtained:

None

Public Outreach [24 CFR 50.23 & 58.43]:

A FONSI notice will be published and circulated consistent with the requirements of 24 CFR 58.43.

Cumulative Impact Analysis [24 CFR 58.32]:

The goals of the project are to create fuel breaks along county roadways, reduce fire spread to structures, and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for residents. Currently, trees on either side of the roads encroach to the point where the canopies extend over the roads and vegetation encroaches up to the edge of the roadways, allowing fires to cross the roadways easily while also impeding evacuation routes to at-risk communities. This project would also benefit the potable water systems in Brownsville and Camptonville, and would help protect and preserve access to the airport adjacent to La Porte Road in Brownsville. This roadside fuel reduction project will benefit residents of hundreds of Yuba County homes and structures.

While the project has the potential to affect biological and cultural/historic resources, implementation of mitigation measures required for the project would reduce those impacts to a less than significant level.

The project would reduce the potential for wildfire related injuries and deaths and the destruction of private and public property. As such, the proposed project is expected to have a beneficial cumulative impact.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

The only feasible alternative would be a reduction in the number of roadways that would benefit from the project. Environmental impacts with this alternative would be similar to the project and, as with the project, could be mitigated to a less than significant level. However, this alternative would not have the same level of benefit as the project because the amount of fuel reduction area would be less. Therefore those roadways that would no longer be a part of the project would continue to have vegetation overgrowth that could potentially increase the wildfire hazard in the County. As such, the proposed project would be the better alternative.

No Action Alternative [24 CFR 58.40(e)]:

The No Action Alternative would reflect a continuation of current practices. Because the No Action Alternative would involve limited changes from existing practices, the alternative would be potentially feasible to implement; however, it would not feasibly attain most of the basic objectives of the proposed project. Additionally, the No Action Alternative would continue the current potential for wildfire hazards in Yuba County without increasing the ability for persons to safely evacuate an area, if necessary. As such, the proposed project would be the better alternative.

Summary of Findings and Conclusions:

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

| Law, Authority, or Factor | Mitigation Measure |
|---|---|
| Protection of Wetlands, Executive Order 11990 | <p>Waters of the U.S. All road segments within the Study Area support potentially jurisdictional aquatic features. The following measures are required to avoid impacts to potentially jurisdictional aquatic features:</p> <ul style="list-style-type: none"> ■ The project shall avoid removing vegetation within potentially jurisdictional aquatic features and associated riparian habitat within the aquatic resource avoidance areas identified in the Aquatic Resource Avoidance Map (Attachment D). In addition, the project will avoid adding fill (i.e., any project-related materials) to potentially jurisdictional aquatic features within the project area resource avoidance areas. A qualified biologist will establish aquatic resource avoidance areas with survey flagging prior to project initiation. ■ Fueling of equipment will be conducted more than 100 feet from potentially jurisdictional aquatic features identified in the Aquatic Resource Avoidance Map located in Attachment D. |
| Endangered Species Act of 1973 | <p>Special-Status Plants There is potential for three federally listed plants, Stebbins' morning-glory (<i>Calystegia stebbinsii</i>) and Pine Hill flannelbush (<i>Fremontodendron decumbens</i>), and Layne's ragwort (<i>Packera layneae</i>) to occur within the Study Area. The following measures are required to minimize potential impacts to special-status plants:</p> |

- Perform focused plant surveys within the identified road according to USFWS and CDFW protocols prior to construction. Surveys should be conducted by a qualified biologist within suitable habitats for target species and timed according to the appropriate phenological stage for identifying target species. The blooming period/survey window for Stebbins' morning-glory (*Calystegia stebbinsii*) and Pine Hill flannelbush (*Fremontodendron decumbens*) is April through July, and April through August for Layne's ragwort (*Packera layneae*). Known reference populations should be visited and/or local herbaria records should be reviewed, if available, prior to surveys to confirm the phenological stage of the target species. If no special-status plants are found within the Study Area, no further measures pertaining to special-status plants are necessary..
- If special-status plants are identified within 50-feet of the Project impact area, implement the following measures:
 - The Project will avoid occurrences of federally listed plant species by establishing and clearly demarcating avoidance zones around the plant occurrences prior to construction. Avoidance zones should include the extent of the special-status plants plus a minimum 50-foot buffer, unless otherwise determined by a qualified biologist, and should be maintained until the completion of construction.

California Red-Legged Frog

California red-legged frog is considered "Present" within the Oregon Hill Road segment due to the CNDDDB occurrence within the Study Area and has potential to occur within the Baker Road, Youngs Hill Road, La Porte (east and west), Frenchtown Road, Mountain House Road, Indiana School Road, and Pendola Road segments in the Study Area. Implementation of the following measure would avoid impacts to CRLF:

- The Project shall be designed to avoid Project activities within or adjacent to aquatic features and their associated riparian habitat within the Study Area. The Project will avoid impacts to CRLF and its habitat with the implementation of the aquatic resource avoidance areas measure.
- Prior to the start of construction, a Worker Environmental Awareness Program (WEAP) will be prepared that includes species identification,

| | |
|-----------------------------------|--|
| | <p>procedures if CRLF is encountered, life history descriptions, habitat requirements during various life stages, the species protected status, and penalties for violating the federal ESA. A CRLF-qualified biologist will present the WEAP to all personnel working in the Project Area prior to the start of Project activities. The WEAP may be videotaped and used to train personnel not present for the initial training. A WEAP sign-in sheet will be signed by all personnel that have taken the WEAP training, maintained onsite during Project activities and submitted to the County for record-keeping purposes at Project completion.</p> <ul style="list-style-type: none"> ■ If CRLF is observed during the course of Project activities, then Project activities will be immediately halted within 100 feet of the observation and will be allowed to leave on its own volition. <p>California Spotted Owl California spotted owl suitable nesting habitat occurs within and adjacent to the Study Area. If nesting California spotted owls are present, the Project could result in harassment to nesting individuals. In order to avoid impacts to California spotted owl, the following avoidance measures are required:</p> <ul style="list-style-type: none"> ■ On all road segments that have the potential for California spotted owl to occur, project activities shall be conducted in October through February whenever possible, outside of the California spotted owl nesting season. The California spotted owl nesting season is March through September. ■ If Project activities are to occur during the California spotted owl nesting season within road segments where California spotted owl has the potential to occur, then “Disturbance-Only Project” surveys according to the USFWS 2012 northern spotted owl survey protocol shall be conducted by a qualified biologist. “Disturbance-Only Project” surveys include a one-year six visit survey that covers all spotted owl habitat within 0.25 mile from the Project area. |
| Migratory Bird Treaty Act of 1918 | <p>Nesting Birds and Raptors Nesting birds and raptors have the potential to nest within the Study Area. The following measure is required to minimize potential impacts to nesting birds and raptors:</p> <ul style="list-style-type: none"> ■ Project activities shall be conducted October through January, outside of the typical nesting season (generally February 1 through August 31). |


| | |
|--|---|
| | <ul style="list-style-type: none"> ■ If Project activities are to occur during the nesting season, conduct a preconstruction nesting bird survey of all suitable nesting habitat within 14 days of the commencement of Project activities in a given area of Project activities. The survey shall be conducted within a 500-foot radius of Project work areas for raptors and within a 100-foot radius for other nesting birds. If any active nests are observed, these nests shall be protected by an avoidance buffer established by a qualified biologist until the breeding season has ended or until a qualified biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival. A Preconstruction Nesting Bird Survey Report will be prepared by a qualified biologist that includes surveyors' names and affiliation, dates and times of surveys, methods, results, and recommendations. Additional nesting bird survey(s) will be conducted if there is a lapse in Project activities of 15 days or longer for areas that have been surveyed. Preconstruction nesting surveys are not required for construction activity outside the nesting season. |
| National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800 | <p>Cultural Resources and Tribal Cultural Resources Based on the sensitivity for cultural resources in the permit areas, a training program shall be developed by an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards for archaeology and include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, consequences of violating state and federal laws and regulations, and appropriate avoidance and impact minimization measures.</p> |
| | <p>Historic Resources Vegetation clearing and management procedures have the potential to affect historic resources during project activities. Project activities have the potential to affect archaeological resources on the ground surface. In locations where pre-contact or historic-era resources are known to exist, vegetation removal by hand tools is required. Application of these measures will result in No Significant Effect to Historic Properties.</p> |

Determination:

- ☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature:  Date: 9/6/23

Name/Title/Organization: Mike Martin, Senior Environmental Planner, ECORP Consulting, Inc.

Certifying Officer Signature: _____ Date: _____

Name/Title: Michael Lee, Community Development and Services Agency Director

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Attachments

Attachment A: Air Quality & Greenhouse Gas Emissions Assessment

Attachment B: Biological Resources Assessment

Attachment C: Noise Impact Assessment

Attachment D: Aquatic Resource Avoidance Maps

Attachment A

Air Quality & Greenhouse Gas Emissions
Assessment

Air Quality & Greenhouse Gas Emissions Assessment

Roadside Fuel Reduction Project Yuba County, California

Prepared For:

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August 2023

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LIST OF ATTACHMENTS

Attachment A – CalEEMod Output File for Air Quality and Greenhouse Gas Emissions

LIST OF ACRONYMS AND ABBREVIATIONS

| Term | Description |
|-------------------|---|
| AB | Assembly Bill |
| CAA | Clean Air Act |
| CalEEMod | California Emissions Estimator Model |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CEQ | Council on Environmental Quality |
| CH ₄ | Methane |
| CO | Carbon monoxide |
| County | Yuba County |
| CO ₂ | Carbon dioxide |
| CO ₂ e | Carbon dioxide equivalents |
| DPM | Diesel particulate matter |
| FRAQMD | Feather River Air Quality Management District |
| GHG | Greenhouse gas emissions |
| HAP | Hazardous Air Pollutant |
| HSC | Health and Safety Code |
| hp | Horsepower |
| IPCC | Intergovernmental Panel on Climate Change |
| µg/m ³ | Micrograms per cubic meter |
| lbs | Pounds |
| N ₂ O | Nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NO ₂ | Nitrogen dioxide |
| NO _x | Nitrous oxides |
| NSVAB | Northern Sacramento Valley Air Basin |
| O ₃ | Ozone |
| parts per million | ppm |
| PM ₁₀ | Coarse particulate matter |
| PM _{2.5} | Fine particulate matter |
| Project | Roadside Fuel Reduction Project |
| ROG | Reactive organic gases |
| SB | Senate Bill |
| SIP | State Implementation Plan |
| SO ₂ | Sulfur dioxide |
| SVAQEEP | Sacramento Valley Air Quality Engineering and Enforcement Professionals |
| USEPA | U.S. Environment Protection Agency |
| VMT | Vehicle Miles Traveled |

LIST OF ACRONYMS AND ABBREVIATIONS

| Term | Description |
|-------------|----------------------------|
| VOC | Volatile Organic Compounds |

1.0 INTRODUCTION

This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Assessment completed for the Roadside Fuel Reduction Project, which proposes roadside fuel reduction stretching approximately 45.7 miles throughout northern Yuba County (County) in California. This assessment was prepared using methodologies of the U.S. Environmental Protection Agency (USEPA). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate the Project-generated criteria air pollutants during the one-time Project implementation and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment. Project generated air pollutants are compared to the Conformity Determination thresholds established by the USEPA. GHG emissions are quantified and disclosed for informational purposes.

1.1 Project Location and Description

The Project Site areas are located throughout Yuba County along several roads serving a total of seven at-risk communities. The Proposed Project's implementation would address approximately 45.7 miles of rural roads in the forested portions along the Sierra foothills within the County. The Project Site areas include 18 road segments.

The Proposed Project includes the removal and trimming of fire hazardous brush and tree limbs. All removed vegetation will be chipped and remain on site. The Project aims to create fuel breaks along County roadways, reduce fire spread to structures and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for residents. Currently, trees and vegetation encroach up to the edges of the road and the canopies extend over the roads. This may allow fires to cross the roadways easily while also impeding access to at-risk communities. Additionally, the Project would also benefit the potable water systems in the communities of Brownsville and Camptonville and would help protect and preserve access to the airport adjacent to La Porte Road in Brownsville.

2.0 AIR QUALITY

2.1 Environmental Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Northern Sacramento Valley Air Basin (NSVAB), which encompasses the Project Area in the County of Yuba.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the NSVAB and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 Northern Sacramento Valley Air Basin

The Proposed Project is located within the NSVAB. The NSVAB consists of seven counties: Sutter, Yuba, Colusa, Butte, Glenn, Tehama, and Shasta. The NSVAB is bounded on the north and west by the Coastal Mountain Range and on the east by the southern end of the Cascade Mountain Range and the northern end of the Sierra Nevada. These mountain ranges reach heights in excess of 6,000 feet above mean sea level, with individual peaks rising much higher. The mountains form a substantial physical barrier to locally created pollution as well as to pollution transported northward on prevailing winds from the Sacramento metropolitan area (SVAQEEP 2021).

The air basin is relatively flat, bordered by mountains to the east, west, and north and by the San Joaquin Valley to the south. Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Because the valley is in a bowl-like shape, this can trap pollutants and a temperature inversion layer can create unhealthy pollution concentrations.

2.1.1.1 Meteorological Influences on Air Quality

Regional flow patterns affect air quality patterns by directing pollutants downwind of sources. Localized meteorological conditions, such as moderate winds, disperse pollutants and reduce pollutant concentrations. However, the mountains surrounding the NSVAB can create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical air flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground.

The ozone season (May through October) is characterized by stagnant morning air or light winds, with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north. During about half of the days from July to September, however, a phenomenon called the Schultz Eddy prevents this from occurring. Instead of allowing the prevailing wind patterns to move north and carry the pollutants out of the NSVAB, the Schultz Eddy causes the wind pattern

to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of exceeding federal or state standards.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal government has established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. The USEPA focuses on the following criteria pollutants to determine air quality: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead. O₃, PM₁₀, and PM_{2.5} are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as CO, NO₂, and SO₂ are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

| Table 2-1. Summary of Criteria Air Pollutants Sources and Effects | | |
|--|--|---|
| Pollutant | Major Manmade Sources | Human Health and Welfare Effects |
| CO | An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust. | Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death. |
| NO ₂ | A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources. | Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere. |
| O ₃ | Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N ₂ O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills. | Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. |
| PM _{2.5} & PM ₁₀ | Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others. | Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze). |
| SO ₂ | An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust. | Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death. |

Source: California Air Pollution Control Offices Association (CAPCOA 2013)

2.1.2.1 Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular

disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x , such as NO and NO_2 , attribute to the formation of O_3 and $\text{PM}_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

Ozone (O_3) is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) also known as reactive organic gases (ROG) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Sulfur Dioxide

SO_2 is a colorless gas with a pungent odor, however sulfur dioxide can react with other particulates in the atmosphere to form particulates which contribute to the haze effect. SO_2 standards have been developed by the EPA to regulate all sulfur oxides, however SO_2 is by far the most abundant sulfur oxide in the atmosphere. Currently, SO_2 is primarily a result of the burning of fossil fuels for power generation and other industrial

sources. Modern regulations on diesel fuel have greatly reduced the amount of SO₂ in the atmosphere and there are currently no areas in California that have nonacceptable levels of SO₂, by state or federal standards.

2.1.2.5 Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM₁₀) and small than or equal to 2.5 microns in diameter (PM_{2.5}). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM₁₀ is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM₁₀ generally settles out of the atmosphere rapidly and is not readily transported over large distances. PM_{2.5} is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SO_x) and VOCs. PM_{2.5} can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high PM_{2.5} and PM₁₀ levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Hazardous Air Pollutants

In addition to the criteria pollutants discussed above, hazardous air pollutants (HAPs) are another group of pollutants of concern. HAPs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic HAPs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic HAPs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Carcinogenic HAPs can also have noncarcinogenic health hazard levels.

There are many different types of HAPs, with varying degrees of toxicity. Sources of HAPs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). Public exposure to HAPs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of HAPs include cancer, birth defects, neurological damage, and death.

2.1.4 Ambient Air Quality

Ambient air quality at the Project Area can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. The California Air Resources Board (CARB) maintains more than 60 monitoring stations throughout California. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potentially affecting the Project region. As described in detail below, the region is designated unclassified, or in attainment, for all federal standards of criteria pollutants (CARB 2022b). Yuba County does not contain any air quality monitors. However, the Yuba City air quality monitoring station (773 Almond St, Yuba City CA) in Sutter County is the closest air quality monitoring station to the Project Area that monitors ambient concentrations of O₃, PM₁₀, and PM_{2.5}. As Project implementation would occur at several locations throughout the County, the Yuba City air quality monitoring station is the closest station and will represent the ambient air quality of the Project limits. Table 2-2 summarizes the air quality data from the most recent years that is relevant to the Project Site. Ambient emission concentrations will vary due to localized variations in emission sources and climate, yet these measurements should be considered “generally” representative of ambient concentrations in the Project location areas.

| Table 2-2. Summary of Ambient Air Quality Data in Project Area | | | |
|---|-------------|---------------|---------------|
| Pollutant Scenario | 2019 | 2020 | 2021 |
| O₃ | | | |
| Max 1-hour concentration (ppm) | 0.077 | 0.093 | 0.088 |
| Max 8-hour concentration (ppm) | 0.069 | 0.082 | 0.077 |
| Number of days above 1-hour standard (state/federal) | 0 / 0 | 0 / 0 | 0 / 0 |
| Number of days above 8-hour standard (state/federal) | 0 / 0 | 5 / 2 | 2 / 4 |
| PM₁₀ | | | |
| Max 24-hour concentration (µg/m ³) (state/federal) | 81.9 / 80.5 | 269.2 / 269.1 | 109.6 / 110.1 |
| Number of days above 24-hour standard (state/federal) | 27.0 / 0.0 | 40.3 / 4.0 | * / 0.0 |
| PM_{2.5} | | | |
| Max 24-hour concentration (µg/m ³) | 39.3 | 252.9 | 89.9 |
| Number of days above federal 24-hour standard | 2.0 | 31.2 | 11.1 |

Source: CARB 2022a

Note: * = Insufficient data available

µg/m³ = micrograms per cubic meter; ppm = parts per million

The USEPA designates air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The attainment status for Yuba County portion of the NSVAB is presented in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the Yuba County Portion of the NSVAB

| Pollutant | Federal Designation |
|-------------------|----------------------------|
| O ₃ | Unclassified/Attainment |
| PM ₁₀ | Unclassified |
| PM _{2.5} | Unclassified/Attainment |
| CO | Unclassified/Attainment |
| Lead | Unclassified/Attainment |
| NO ₂ | Unclassified/Attainment |
| SO ₂ | Unclassified/Attainment |

Source: CARB 2022b

The determination of whether an area meets the federal standards is based on air quality monitoring data. As shown above, sometimes areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. The Yuba County region, where the Project Area is located, is designated unclassified, or in attainment, for all federal standards of criteria pollutants (CARB 2022b).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened

by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the Yuba County portion of the NSVAB for the criteria pollutants.

2.2.2 State

2.2.2.1 California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register.

Local air districts, in combination with the Feather River Air Quality Management District (FRAQMD), the local air quality control officer, prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis. The local air districts and Counties that comprise the NSVAB have attained and maintained air quality conditions in region through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. Their current strategies are included in the Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan (2021), which contains mechanisms to achieve ozone standards.

2.2.3 Local

2.2.3.1 Feather River Air Quality Management District

The Project Area is within the Yuba County portion of the NSVAB, which is under the jurisdiction of the FRAQMD. The FRAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The FRAQMD, along with other air districts in the NSVAB, has committed to jointly prepare and implement the Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan for the purpose of achieving and maintaining healthful air quality throughout the air basin.

In addition, the FRAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs.

The following is a list of noteworthy FRAQMD rules and regulations that are required of activities associated with the Proposed Project:

- **Regulation IV (Stationary Emission Sources Permit System and Registration)** – Requires that most projects using of equipment capable of releasing emissions to the atmosphere obtain permit(s) from FRAQMD prior to equipment operation. Specifically, portable construction equipment (e.g. generators, compressors, pile drivers, etc.) with an internal combustion engine over 50 horsepower are required to have a FRAQMD permit or a CARB portable equipment registration.
- **Rule 3.0 (Visible Emissions)** – As provided by Section 41701 of the California Health and Safety Code, a person shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
 - As dark or darker in shade as that designated as No. 2 on the Ringlemen Chart, as published by the United States Bureau of Mines; or
 - Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Subsection 'a' above
- **Rule 3.15 (Architectural Coatings)** – This rule aims to limit the quantity of VOCs in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- **Rule 3.16 (Fugitive Dust)** – This rule states that developers or contractors are required to control dust emissions from earth moving or any other construction-related activities to prevent airborne dust from leaving a project site. Developers and/or contractors must take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Rule 3.16 is enforced through the requirement of preparation of a Fugitive Dust Control Plan, which identifies the dust suppression measures to be employed. Reasonable precautions shall include, but are not limited to
 - use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land;
 - application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;
 - other means approved by FRAQMD.

- **Rule 4.1 (Permit Requirements)** – Any person operating an article, machine, equipment, or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from FRAQMD.
- **California Health and Safety Code (HSC) section 41700** – Except as otherwise provided in Section 41705, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

2.2.3.2 Yuba County General Plan

The following goals and policies of the 2030 Yuba County General Plan (Yuba County 2011) are applicable to the Project:

- **Goal HS-6:** Use construction practices and operational strategies that minimize air pollution.
- **Policy HS- 6.1:** New developments shall implement emission control measures recommended by the Feather River Air Quality Management District for construction, grading, excavation, and demolition, to the maximum extent feasible.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Threshold of Significance

The impact analysis provided below is based on thresholds set by the USEPA Conformity Determination Analysis. The General Conformity process begins with an “applicability analysis,” whereby it must be determined how and to what degree the Conformity Rules apply. According to USEPA’s General Conformity Guidance: Questions and Answers (1994), before any approval is given for a Federal Action to go forward, the federal agency must apply the applicability requirements found at 40 CFR § 93.153 to the Federal Action and/or determine on a pollutant-by-pollutant basis, whether a determination of General Conformity is required. During the applicability analysis, the federal agency determines the following:

- Whether the action will occur in a nonattainment or maintenance area;
- Whether one or more of the specific exemptions apply to the action;
- Whether the federal agency has included the action on its list of presumed-to-conform actions;
- Whether the total direct and indirect emissions are below or above the de minimis levels; and/or
- Where a facility has an emissions budget approved by the State or Tribe as part of the SIP or TIP, the federal agency determines that the emissions from the proposed action are within the budget.

The General Conformity Rule allows for exemptions for emissions that are not reasonably foreseeable, will not result in an increase in emissions, are below de minimis limits, are the result of emergency actions, are included in stationary source air permits, are for routine maintenance and repair of existing structures, or

are included in a transportation conformity determination undertaken by the Federal Highway Administration or Federal Transit Administration (40 CFR 93.153(c)).

A conformity determination would be required if the annual emissions of non-attainment pollutants generated by the Proposed Project were to exceed the General Conformity de minimis thresholds. The de minimis limits represent a level of emissions that the USEPA has determined will have only de minimis impacts to the air quality of an area and are thus exempted from the General Conformity Rule. If the overall predicted increase in emissions of a criteria pollutant due to a federal action in a nonattainment area exceeds the de minimis limits as shown in Table 2-4, the lead federal agency is required to make a conformity determination.

Table 2-4. Federal General Conformity *De Minimis* Emissions Levels

| Air Pollutant | Area Type | Tons Per Year |
|---|--|----------------------|
| Ozone (VOC or NO _x) | Serious nonattainment | 50 |
| | Severe nonattainment | 25 |
| | Extreme nonattainment | 10 |
| | Other areas outside of ozone transport region | 100 |
| Ozone (NO _x) | Marginal and moderate nonattainment inside an ozone transport region | 100 |
| | Maintenance | 100 |
| Ozone (VOC) | Marginal and moderate nonattainment inside an ozone transport region | 50 |
| | Maintenance within an ozone transport region | 50 |
| | Maintenance outside an ozone transport region | 100 |
| CO, SO ₂ and NO ₂ | All nonattainment and maintenance | 100 |
| PM ₁₀ | Serious nonattainment | 70 |
| | Moderate nonattainment and maintenance | 100 |
| PM _{2.5} | All nonattainment and maintenance | 100 |
| Lead | All nonattainment and maintenance | 25 |

Source: USEPA 2023

2.3.2 Methodology

The air quality impacts were assessed in accordance with the thresholds set by the USEPA Conformity Determination Analysis. General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality. Established under the Clean Air Act (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure

that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that:

- federal activities do not cause or contribute to new violations of NAAQS;
- actions do not worsen existing violations of the NAAQS; and
- attainment of the NAAQS is not delayed.

The Proposed Project region is designated as attainment or unclassified for all federal criteria pollutants.

Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. CalEEMod provides the ability to analyze a project based on both California and Federal air quality standards. Project implementation-generated air pollutant emissions were primarily calculated using CalEEMod model defaults for Yuba County. Because the Project would be a one-time event that would reduce the vegetation along roadsides, there would be no operational aspect of the Project.

2.3.3 Impact Analysis

2.3.3.1 Project Implementation-Generated Criteria Air Quality Emissions

Emissions associated with Project implementation would be temporary and short-term but have the potential to represent a significant air quality impact. The basic sources of short-term emissions that would be generated through the implementation of the Proposed Project would be operation of the construction vehicles and equipment (i.e. chippers and chainsaws) and the creation of fugitive dust during vegetation clearing. Possible implementation activities such as clearing operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during the Project's activities. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts.

The Project implementation-generated emissions were calculated using the CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 2-5. The emissions associated with the Project's implementation would be short-term and of temporary duration, lasting only as long as the vegetation reduction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds Conformity Determination thresholds.

Table 2-5. Implementation-Related Criteria Air Pollutant Emissions

| Implementation Year | Pollutant (tons per year) | | | | | |
|--|---------------------------|-----------------|------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO ₂ | PM ₁₀ | PM _{2.5} |
| Implementation Year One | 1.67 | 0.08 | 1.84 | 0.00 | 0.02 | 0.02 |
| <i>USEPA Conformity Determination Thresholds (40 CFR 93.153)</i> | <i>100</i> | <i>100</i> | <i>100</i> | <i>100</i> | <i>100</i> | <i>100</i> |
| Exceed USEPA Conformity Threshold? | No | No | No | No | No | No |

Source: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs.

According to Table 2-5, emissions generated during Project's implementation would not exceed the USEPA Conformity Determination thresholds for the region.

2.3.3.2 Project Operations Criteria Air Quality Emissions

The Proposed Project involves the trimming and the removal of vegetation along several roads in Yuba County. It would not include the addition of new permanent stationary or mobile sources of emissions to the Project Area. Therefore, operational emissions would have no impact on long-term air quality impacts.

2.3.3.3 Project Consistency with Air Quality Planning

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. The NSVAB portion of the SIP is constituted of air quality attainment plans approved by the USEPA. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. As previously mentioned, the Yuba County portion of the NSVAB is designated as unclassified or attainment for all federal standards of criteria pollutants.

The FRAQMD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The FRAQMD attains and maintains air quality conditions in Yuba County. The FRAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the NSVAB is nonattainment. The FRAQMD attains and maintains air quality conditions in Yuba County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. Their current strategies are included in the Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan (2021), which contains mechanisms to achieve ozone standards. These pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and associated vehicle miles traveled

projections for the region. FRAQMD's latest population growth forecasts were defined in consultation with local governments and with reference to local general plans. A project conforms with the FRAQMD attainment plans if it complies with all applicable district rules and regulations, complies with all control measures from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan).

The SIP plans and control measures are based on information derived from projected growth in Yuba County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the general plans developed by Yuba County and the incorporated cities in the County. As such, projects that propose development consistent with the growth anticipated by the respective general plan of the jurisdiction in which the proposed development is located would be consistent with the SIP. In the event that a project proposes a development that is less dense than that associated with the general plan, the project would likewise be consistent with the SIP. If a project, however, proposes a development that is denser than that assumed in the general plan, the project may be in conflict with the SIP and could therefore result in a significant impact on air quality.

Growth projections are based on the Yuba County General Plan. The Proposed Project does not include development of new housing or employment centers and would not induce population or employment growth. Rather, the Project seeks to remove and trim of fire hazardous brush and tree limbs in order to create fuel breaks along County roadways, reduce fire spread to structures and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for County residents. Therefore, the Project would not affect local plans for population growth and the Proposed Project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of FRAQMD air quality planning efforts. Furthermore, as described in detail above, the Project would not exceed the USEPA Conformity Determination thresholds and in turn would not result considerable increase of any criteria pollutant for which the Project region is nonattainment, and thus would not violate any air quality standards.

The Project would not conflict with or obstruct implementation of the applicable air quality plan.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. More specifically, experts agree that human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. (Intergovernmental Panel on Climate Change [IPCC] 2023).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and HAPs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Despite the sequestration of CO₂, human-caused climate change is already causing damaging effects, including weather and climate extremes in every region across the globe (IPCC 2023).

Table 3-1. Summary of Greenhouse Gases

| Greenhouse Gas | Description |
|-----------------------|--|
| CO ₂ | Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹ |
| CH ₄ | Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ² |
| N ₂ O | Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³ |

Sources: (1) USEPA 2016a; (2) USEPA 2016b; (3) USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. As such, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2022, CARB released the 2022 edition of the California GHG inventory covering calendar year 2020 emissions. In 2020, California emitted 369.2 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2020, accounting for approximately 38 percent of total GHG emissions in the state. Continuing the downward trend from previous years, transportation emissions decreased 27 million metric tons of CO₂e in 2020, though the intensity of this decrease was most likely from light duty vehicles after shelter-in-place orders were enacted in response to the COVID-19 pandemic. Emissions from the electricity sector account for 16 percent of the inventory and have remained at a similar level as in 2019 despite a 44 percent decrease in in-state hydropower generation (due to below average precipitation levels), which was more than compensated for by a 10 percent growth in in-state solar generation and cleaner imported electricity incentivized by California's clean energy policies. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2020, accounting for 23 percent (CARB 2022c).

3.2 Regulatory Framework

3.2.1 Federal

3.2.1.1 EPA Climate Change Guidance for National Environmental Policy Act Reviews

On January 9, 2023, the Council on Environmental Quality (CEQ) issued the *NEPA Guidance on Consideration of Greenhouse Gases and Climate Change*. This guidance states that NEPA reviews should quantify proposed actions' GHG emissions, convey the GHG emissions in appropriate context, disclose relevant climate and social impacts, and consider alternatives and mitigation measures to avoid or reduce GHG emissions. CEQ encourages agencies to consider mitigation of GHG emissions to the greatest reasonable extent, and ensure that all measures are consistent with national, science based GHG reduction policies established to avoid the worst impacts of climate change.

3.3 Greenhouse Gas Emissions Impact Assessment

Currently, there are no thresholds of significance established by the USEPA by which to evaluate Projects under NEPA. Furthermore, at the federal level, there are no standards or regulations regarding GHG emissions. Notably, the recent guidance issued by the CEQ encourages thorough GHG analyses, quantification of proposed GHG emissions, disclosure of potential impacts, and consideration of any relevant GHG reduction measures. Although there are no specific standards or thresholds to compare the Proposed Project GHG emissions to, it is nevertheless imperative to provide information on the Project's GHG implications and provide careful consideration of the GHG reduction measures to facilitate informed decision-making. As such, this evaluation of the Proposed Project's GHG emissions is provided for disclosure purposes.

3.3.1 Methodology

Emissions were modeled using CalEEMod, version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project implementation generated GHG emissions were primarily calculated using CalEEMod model defaults for Yuba County. Because the Project would be a one-time event that would reduce the vegetation along roadsides, there would be no operational aspect of the Project.

3.3.2 Impact Analysis

3.3.2.1 Project Implementation-Generated Greenhouse Gas Emissions

Implementation-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the various Project Site areas, and off-road construction equipment (e.g., mulchers, excavators). Table 3-2 illustrates the specific GHG emissions that would result from the implementation of the Project. Once implementation is complete, the generation of these GHG emissions would cease.

Table 3-2. Project Implementation Greenhouse Gas Emissions

| Description | CO₂e Emissions (Metric Tons/Year) |
|-------------------------------------|---|
| Implementation Calendar Year One | 9 |
| Total Construction Emissions | 9 |

Sources: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs

As shown in Table 3-2, Project implementation would result in the generation of a total of approximately 9 metric tons of CO₂e over the its course. Once construction is complete, the generation of these GHG emissions will cease. Furthermore, GHG emissions generated by the construction equipment sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower (hp) and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 hp and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which were phased in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards. The equipment used in the Project's implementation would likely reflect the improved engine efficiency trends.

As previously described, the Project would result in approximately 9 metric tons of CO₂e over the course of the Project's implementation. It is important to acknowledge that GHG emissions have a cumulative impact on global climate change. Presently, climate change has already prompted damaging effects, manifested through extreme weather events and climatic anomalies across the globe, posing considerable risks to vulnerable populations. However, the Proposed Project's contribution to global climate change is minimal, if not negligible. The objective of the Proposed Project is to take proactive measures to reduce wildfire risk by reducing vegetation. Without the Project, the necessary fuel breaks along County roadways would not be achieved, allowing increased risk of fire spread to structures and/or natural resources impeding access to at-risk communities in case of a wildfire emergency. Moreover, in assessing the Project's significance, due consideration must be given the Project's lifespan, which would consist of a one-time period of Project implementation, that upon completion would cease and further GHG emissions.

In conclusion, while recognizing the importance GHG emissions and their impact on climate change, the Proposed Project's proactive measures to address wildfire risk and protect the County's vulnerable communities present a compelling foundation for its implementation. As such, the Project's GHG emissions would not exert a significant impact on global climate change.

3.3.2.2 *Project Operational Greenhouse Gas Emissions*

There would be no long-term operational phase associated with the Proposed Project. Once Project implementation is complete, all GHG emission causing activities would cease. As such, there would be no long-term operational GHG attributable to the Project.

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LIST OF ATTACHMENTS

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ATTACHMENT A

CalEEMod Output File for Air Quality and Greenhouse Gas Emissions

Yuba County Fuels Reduction Project Detailed Report

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5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

| Data Field | Value |
|-----------------------------|---|
| Project Name | Yuba County Fuels Reduction Project |
| Construction Start Date | 2/1/2024 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.90 |
| Precipitation (days) | 57.2 |
| Location | 39.422434881163895, -121.19938772595773 |
| County | Yuba |
| City | Unincorporated |
| Air District | Feather River AQMD |
| Air Basin | Sacramento Valley |
| TAZ | 347 |
| EDFZ | 4 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.16 |

1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|
| User Defined Linear | 46.0 | Mile | 167 | 0.00 | 0.00 | — | — | — |

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | 0.00 | 0.46 | 0.35 | 0.00 | 0.35 | — | 203 | 203 | 0.01 | < 0.005 | 0.00 | 203 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | 0.00 | 0.46 | 0.35 | 0.00 | 0.35 | — | 203 | 203 | 0.01 | < 0.005 | 0.00 | 203 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 9.15 | 0.41 | 10.1 | < 0.005 | 0.13 | 0.00 | 0.13 | 0.10 | 0.00 | 0.10 | — | 55.5 | 55.5 | < 0.005 | < 0.005 | 0.00 | 55.7 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.67 | 0.08 | 1.84 | < 0.005 | 0.02 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | — | 9.19 | 9.19 | < 0.005 | < 0.005 | 0.00 | 9.22 |

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|----------------------|------|------|------|---------|------|------|------|------|------|------|---|------|------|---------|---------|------|------|
| 2024 | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | 0.00 | 0.46 | 0.35 | 0.00 | 0.35 | — | 203 | 203 | 0.01 | < 0.005 | 0.00 | 203 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | 0.00 | 0.46 | 0.35 | 0.00 | 0.35 | — | 203 | 203 | 0.01 | < 0.005 | 0.00 | 203 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 9.15 | 0.41 | 10.1 | < 0.005 | 0.13 | 0.00 | 0.13 | 0.10 | 0.00 | 0.10 | — | 55.5 | 55.5 | < 0.005 | < 0.005 | 0.00 | 55.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 1.67 | 0.08 | 1.84 | < 0.005 | 0.02 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | — | 9.19 | 9.19 | < 0.005 | < 0.005 | 0.00 | 9.22 |

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | — | 0.46 | 0.35 | — | 0.35 | — | 201 | 201 | 0.01 | < 0.005 | — | 201 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 33.4 | 1.50 | 36.9 | < 0.005 | 0.46 | — | 0.46 | 0.35 | — | 0.35 | — | 201 | 201 | 0.01 | < 0.005 | — | 201 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|---------|------|------|------|------|------|------|---|------|------|---------|---------|------|------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 9.15 | 0.41 | 10.1 | < 0.005 | 0.13 | — | 0.13 | 0.10 | — | 0.10 | — | 55.0 | 55.0 | < 0.005 | < 0.005 | — | 55.2 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.67 | 0.08 | 1.84 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 9.11 | 9.11 | < 0.005 | < 0.005 | — | 9.14 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

5. Activity Data

5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|----------------------------------|----------------------------------|------------|-----------|---------------|---------------------|-------------------|
| Linear, Grubbing & Land Clearing | Linear, Grubbing & Land Clearing | 2/1/2024 | 6/19/2024 | 5.00 | 100 | — |

5.2. Off-Road Equipment

5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------------------------|----------------|-----------|-------------|----------------|---------------|------------|-------------|
| Linear, Grubbing & Land Clearing | Signal Boards | Electric | Average | 0.00 | 1.00 | 0.00 | 0.00 |
| Linear, Grubbing & Land Clearing | Signal Boards | Electric | Average | 0.00 | 1.00 | 0.00 | 0.00 |
| Linear, Grubbing & Land Clearing | Signal Boards | Electric | Average | 0.00 | 1.00 | 0.00 | 0.00 |

| | | | | | | | |
|----------------------------------|--------------------------|----------|---------|------|------|------|------|
| Linear, Grubbing & Land Clearing | Signal Boards | Electric | Average | 30.0 | 8.00 | 6.00 | 0.82 |
| Linear, Grubbing & Land Clearing | Concrete/Industrial Saws | Gasoline | Average | 1.00 | 8.00 | 10.0 | 0.78 |
| Linear, Grubbing & Land Clearing | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |

5.3. Construction Vehicles

5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|----------------------------------|--------------|-----------------------|----------------|---------------|
| Linear, Grubbing & Land Clearing | — | — | — | — |
| Linear, Grubbing & Land Clearing | Worker | 0.00 | 14.3 | LDA,LDT1,LDT2 |
| Linear, Grubbing & Land Clearing | Vendor | 0.00 | 8.80 | HHDT,MHDT |
| Linear, Grubbing & Land Clearing | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Grubbing & Land Clearing | Onsite truck | — | — | HHDT |

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|------------|--|--|--|--|-----------------------------|
|------------|--|--|--|--|-----------------------------|

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|------------|------------------------|------------------------|----------------------|-------------------------------|---------------------|
|------------|------------------------|------------------------|----------------------|-------------------------------|---------------------|

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---------------------|--------------------|-----------|
| User Defined Linear | 167 | 100% |

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|------|--------------|-----|------|---------|
| 2024 | 881 | 204 | 0.03 | < 0.005 |

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.2. Sequestration

5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|------------------------------|-----------------------------|--|
| Temperature and Extreme Heat | 28.4 | annual days of extreme heat |
| Extreme Precipitation | 24.3 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 43.0 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | 5 | 0 | 0 | N/A |
| Extreme Precipitation | 5 | 0 | 0 | N/A |
| Sea Level Rise | N/A | N/A | N/A | N/A |

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | 0 | 0 | 0 | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 0 | 0 | 0 | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | 5 | 1 | 1 | 4 |
| Extreme Precipitation | 5 | 1 | 1 | 4 |
| Sea Level Rise | N/A | N/A | N/A | N/A |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | 1 | 1 | 1 | 2 |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 1 | 1 | 1 | 2 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---------------------------------|---------------------------------|
| Exposure Indicators | — |
| AQ-Ozone | 75.4 |
| AQ-PM | 3.11 |
| AQ-DPM | 0.07 |
| Drinking Water | 70.5 |
| Lead Risk Housing | 28.6 |
| Pesticides | 31.0 |
| Toxic Releases | 1.00 |
| Traffic | 0.15 |
| Effect Indicators | — |
| CleanUp Sites | 51.6 |
| Groundwater | 65.3 |
| Haz Waste Facilities/Generators | 1.80 |
| Impaired Water Bodies | 58.7 |
| Solid Waste | 91.9 |
| Sensitive Population | — |
| Asthma | 7.93 |
| Cardio-vascular | 10.7 |
| Low Birth Weights | 23.1 |
| Socioeconomic Factor Indicators | — |
| Education | 52.9 |
| Housing | 38.8 |
| Linguistic | 14.3 |
| Poverty | 62.5 |

| | |
|--------------|------|
| Unemployment | 22.6 |
|--------------|------|

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|------------------------|---------------------------------|
| Economic | — |
| Above Poverty | 35.53188759 |
| Employed | 9.136404466 |
| Median HI | 12.61388426 |
| Education | — |
| Bachelor's or higher | 46.42627999 |
| High school enrollment | 100 |
| Preschool enrollment | 81.75285513 |
| Transportation | — |
| Auto Access | 77.83908636 |
| Active commuting | 62.53047607 |
| Social | — |
| 2-parent households | 3.438983703 |
| Voting | 54.43346593 |
| Neighborhood | — |
| Alcohol availability | 92.3649429 |
| Park access | 20.32593353 |
| Retail density | 1.642499679 |
| Supermarket access | 25.76671372 |
| Tree canopy | 99.25574233 |
| Housing | — |
| Homeownership | 71.67971256 |

| | |
|--|-------------|
| Housing habitability | 41.4731169 |
| Low-inc homeowner severe housing cost burden | 78.36519954 |
| Low-inc renter severe housing cost burden | 54.70293853 |
| Uncrowded housing | 60.77248813 |
| Health Outcomes | — |
| Insured adults | 23.77774926 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 87.1 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 25.0 |
| Cognitively Disabled | 3.1 |
| Physically Disabled | 6.4 |
| Heart Attack ER Admissions | 90.9 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |

| | |
|---------------------------------------|------|
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 84.2 |
| SLR Inundation Area | 0.0 |
| Children | 86.0 |
| Elderly | 4.7 |
| English Speaking | 95.8 |
| Foreign-born | 3.2 |
| Outdoor Workers | 28.3 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 99.7 |
| Traffic Density | 0.1 |
| Traffic Access | 0.0 |
| Other Indices | — |
| Hardship | 54.7 |
| Other Decision Support | — |
| 2016 Voting | 54.5 |

7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---------------------------------|
| CalEnviroScreen 4.0 Score for Project Location (a) | 17.0 |
| Healthy Places Index Score for Project Location (b) | 37.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | Yes |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Construction Phases | Land Clearing and Grubbing are the only parts of the project |
| Construction: Off-Road Equipment | The proposed construction equipment includes a masticator/mulchers, and a gasoline chainsaw, and hand trimmers. |
| Construction: Dust From Material Movement | no material movement |
| Construction: On-Road Fugitive Dust | 100% paved |

Attachment B

Biological Resources Assessment

Biological Resources Assessment for the Yuba County Roadside Fuel Reduction Project

Yuba County, California

Prepared For:

Yuba County Department of Community Development

Prepared By:



2525 Warren Drive
Rocklin, California 95677

August 15, 2023

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LIST OF ACRONYMS AND ABBREVIATIONS

| Term | Description |
|-------------|---|
| AMSL | Above Mean Sea Level |
| BA | Biological Assessment |
| BO | Biological Opinion |
| BRA | Biological Resources Assessment |
| CFR | Code of Federal Regulations |
| County | County of Yuba |
| CNDDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CRLF | California Red-Legged Frog |
| CWA | Clean Water Act |
| ESA | Endangered Species Act |
| HUC | Hydrologic Unit Code |
| MBTA | Migratory Bird Treaty Act |
| MCV | Manual of California Vegetation |
| NMFS | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| NRCS | Natural Resources Conservation Service |
| Project | Yuba County Roadside Fuel Reduction Project |
| ROW | Right-Of-Way |
| Study Area | Challenge Cutoff Road, La Porte Road, Frenchtown Road, Frenchtown-Dobbins Road, Indiana Ranch Road, Indiana School Road, Oregon Hill Road, Marysville Road, Baker Road, Mountain House Road, Cleveland Avenue, State Highway 49, Old Camptonville Road, Pendola Road, and Youngs Hill Road segments |
| USACE | U.S. Army Corps of Engineers |
| USC | U.S. Code |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| WEAP | Worker Environmental Awareness Program |

1.0 INTRODUCTION

At the request of the County of Yuba (County) Department of Community Development, ECORP Consulting, Inc. conducted a Biological Resources Assessment (BRA) for the proposed Yuba County Roadside Fuel Reduction Project (Project) located in Yuba County, California. The purpose of the assessment was to collect information on the biological resources present within the Project area and to determine any potential biological constraints to Project activities.

1.1 Project Location

The Project is located within the County Right-of-Way (ROW) of approximately 45.7 centerline miles of various road segments in rural Yuba County, California (Figure 1). The various roads with segments proposed for fuel reduction include Challenge Cutoff Road, La Porte Road, Frenchtown Road, Frenchtown-Dobbins Road, Indiana Ranch Road, Indiana School Road, Oregon Hill Road, Marysville Road, Baker Road, Mountain House Road, Cleveland Avenue, State Highway 49, Old Camptonville Road, Pendola Road, and Youngs Hill Road segments ("Study Area", Figure 1.)

The various road segments correspond to portions of the Forbestown, Rackerby, Challenge, Clipper Mills, Strawberry Valley, French Corral, and Camptonville, California 7.5-minute quadrangles (U.S. Geological Survey 1970). The Study Area road segments are near New Bullard's Bar Reservoir within the Upper Yuba Watershed (Hydrologic Unit Code [HUC] #18020125) with a small portion of La Porte Road segments falling within the Middle Fork Feather Watershed (HUC #18020123; Natural Resources Conservation Service [NRCS] et al. 2016).

1.2 Project Description

The Project proposes to conduct roadside vegetation fuel reduction activities that will address approximately 45.7 centerline miles of rural roads in the forested portions of the Sierra foothills of Yuba County. The Project includes 18 road segments serving a total of seven at-risk communities. The goals of the Project are to create fuel breaks along County roadways, reduce fire spread to structures and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for residents. The Project proposes to remove herbaceous and shrub vegetation, sapling trees with a diameter at breast height (DBH) less than 4-inches, and remove limbs up to 12 feet high on trees with a DBH greater than 4 inches. Vegetation removal activities will be conducted entirely within the County ROW.

1.3 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species listed pursuant to the Federal Endangered Species Act (ESA) or their habitat, and sensitive habitats such as U.S. Army Corps of Engineers (USACE) potentially jurisdictional aquatic features within the Study Area. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of the available literature and site reconnaissance.



Figure 1. Study Area Location and Vicinity

2023-074 CDBG-DR Roadside Fuel Reduction

For the purposes of this assessment, special-status species are defined as plants or animals that are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal ESA. Only species that fall into the above definition were considered for this assessment. Other species without special status that were found in database or literature searches were not included in this analysis.

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan is developed.

2.1.1.1 Section 7

Section 7 of the ESA mandates that all federal agencies consult with USFWS and/or NMFS to ensure that federal agencies’ actions do not jeopardize the continued existence of a listed species or adversely modify Critical Habitat for listed species. The applicant must conduct a Biological Assessment (BA) for the purpose of analyzing the potential effects of the project on listed species and critical habitat to establish and justify an *effect determination*. If adverse effects to a species or its Critical Habitat are likely. The federal agency reviews the BA; if it is concluded that the project may adversely affect a listed species or its habitat, the agency prepares a Biological Opinion (BO). Through consultation and the issuance of a BO, the agency may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. The BO may recommend *reasonable and prudent alternatives* to the project to avoid jeopardizing or adversely modifying habitat. The adverse modifications will require formal consultation with USFWS or NMFS if direct and/or indirect effects will occur to Critical Habitat that appreciably diminish the value of Critical Habitat for both the survival and recovery of a species.

2.1.1.2 Critical Habitat

Critical Habitat is defined in Section 3 of ESA as:

1. The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and
2. Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

For inclusion in a Critical Habitat designation, habitat within the geographical area occupied by the species at the time it was listed must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide essential life cycle needs of the species (areas on which are found the primary constituent elements). Primary constituent elements are the physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. These include but are not limited to the following:

- Space for individual and population growth and for normal behavior.
- Food, water, air, light, minerals, or other nutritional or physiological requirements.
- Cover or shelter.
- Sites for breeding, reproduction, or rearing (or development) of offspring.
- Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

Excluded essential habitat is defined as areas that were found to be essential habitat for the survival of a species and assumed to contain at least one of the primary constituent elements for the species but were excluded from the Critical Habitat designation. The USFWS has stated that any action within the excluded essential habitat that triggers a federal nexus will be required to undergo the Section 7(a)(1) process, and the species covered under the specific critical habitat designation would be afforded protection under Section 7(a)(2) of ESA.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “...restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the USACE. *Discharges of fill material* is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR Section 328.2(f)]. In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to Waters of the U.S. (more than 0.5 acre of impact) may require an individual permit. Projects that only minimally affect Waters of the U.S. (less than 0.5 acre of impact) may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; In California, this certification or waiver authority is delegated to the Regional Water Quality Control Board.

3.0 METHODS

3.1 Literature Review

ECORP biologists reviewed the following resources to determine the special-status species that have been documented within or in the vicinity of the Study Area.

- California Natural Diversity Database (CNDDDB) data for the “Forbestown, Rackerby, Challenge, Clipper Mills, Strawberry Valley, French Corral, and Camptonville, California” 7.5-minute USGS quadrangles and the surrounding USGS quadrangles (CDFW 2023);
- USFWS Information, Planning, and Consultation System Resource Report List for the Study Area (USFWS 2022a);
- California Native Plant Society’s (CNPS) electronic Inventory of Rare and Endangered Plants of California for the “Forbestown, Rackerby, Challenge, Clipper Mills, Strawberry Valley, French Corral, and Camptonville, California” 7.5-minute USGS quadrangles and the surrounding quadrangles (CNPS 2023); and.
- NMFS Resources data for the “Forbestown, Rackerby, Challenge, Clipper Mills, Strawberry Valley, French Corral, and Camptonville, California” 7.5-minute USGS quadrangles (National Oceanic and Atmospheric Administration [NOAA] 2022)

The results of the database queries are included in Appendix A

ECORP reviewed aerial imagery and site- or species-specific background information, to determine the potential for occurrence of sensitive biological resources within or in the vicinity of the Study Area.

3.2 Site Reconnaissance

ECORP biologists Daniel Machek and Aly Johnson conducted reconnaissance-level field surveys for the Study Area on May 10, 16, 18, and 25, 2023. The reconnaissance survey entailed visual observation and documentation of onsite biological resources. The biologists gave special attention to identifying those portions of the Study Area with the potential to support special-status species and sensitive habitats. Mr. Machek and Ms. Johnson characterized biological communities occurring onsite during the field survey and collected the following biological resource information:

- Aquatic resources;
- Vegetation communities;
- Potential bat nest locations;
- Special habitat features and,
- Representative photographs.

3.3 Special-Status Species Considered for the Study Area

ECORP generated a Species Potential to Occur Table of special-status species considered to have the potential to occur within the vicinity of the Study Area based on database queries and is located in Appendix C. Each of the species was evaluated for its potential to occur within the Study Area through the literature review and field observations, and categorized based on the following criteria:

- **Present** - Species was observed during the site visit or is known to occur within the Study Area based on documented occurrences within the CNDDDB or other literature.
- **Potential to Occur** - Habitat (including soils and elevation requirements) for the species occurs within the Study Area.
- **Low Potential to Occur** - Marginal or limited amounts of habitat occurs and/or the species is not known to occur within the vicinity of the Study Area based on CNDDDB records and other available documentation.
- **Absent** - No suitable habitat (including soils and elevation requirements) and/or the species is not known to occur within the vicinity of the Study Area based on CNDDDB records and other documentation.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The Study Area road segments are within the foothills and mountains of Yuba County. The elevation of the road segments ranges from 1,620 feet Above Mean Sea Level (AMSL) at Indiana School Road to 4,050 feet AMSL at the La Porte Road (east) segment. The Study Area consists of the County roads and ROW along the designated road segments. There are perimeter fences and undeveloped dirt roads along portions of the road segments. The surrounding land use includes rural residential, agricultural, and undeveloped private and public forest.

Representative photographs of the Study Area are included in Appendix B.

4.2 Vegetation Communities and Land Cover Types

The following seven vegetation communities were observed within the proposed Study Area: Barren, Annual Grassland, Mixed Conifer Forest and Woodland, Foothill Pine Woodland, Mixed Oak Forest and Woodland, Valley Foothill Riparian, and Bigleaf Maple Forest and Woodland.

4.2.1 Barren

The Barren land cover type is defined as historically or recently disturbed sites where barren rock or soil dominates the ground layer, and tree and shrub cover is typically sparse or absent. The Barren land cover type occurs within all road segments as the paved or dirt road and their road shoulders that are County-maintained with gravel and various forms of vegetation maintenance.

4.2.2 Annual Grassland

Annual grasslands occur in the understory of woodland habitats and in openings of the woodland habitats, tending to be closer to the edge of pavement. Most of the road segments contain annual grasslands. Frenchtown-Dobbins Road, Frenchtown Road, Indiana School Road, and Pendola Road segments have small portions of annual grassland vegetation community.

The annual grasslands within the Study Area are dominated by nonnative annual grasses including wild oat (*Avena* spp.) and brome (*Bromus* spp.). The annual grassland vegetation community most resembles the *Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance as characterized by the Manual of California Vegetation (MCV). Seminal alliances are strongly dominated by nonnative plants that have become naturalized in the state.

4.2.3 Mixed Conifer Forest and Woodland

Mixed conifer forest and woodland occurs in the higher elevation portions of the road segments. The majority of road segments have Mixed Conifer Forest and Woodland as the dominant woody vegetation community present. Frenchtown Road, Cleveland Avenue, La Porte Road (West and East), Indiana Ranch Road, Marysville Road, Frenchtown-Dobbins Road, Challenge Cutoff, Pendola Road, Mountain House

Road, Oregon Hill Road, Baker Road, Highway 49, Old Camptonville Road, Youngs Hill Road segments have Mixed Conifer Forest and Woodland as the dominant vegetation community.

The mixed conifer forest and woodland within the Study Area is dominated by ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), and Douglas fir (*Pseudotsuga menziesii*) in the overstory and the regenerative sapling layer. White fir (*Abies concolor*) and sugar pine (*Pinus lambertiana*) are the subdominant tree canopy species. Mountain dogwood (*Cornus nuttallii*), black oak (*Quercus kelloggii*), tan oak (*Notholithocarpus densiflorus*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), big leaf maple (*Acer macrophyllum*), honey locust (*Gleditsia triacanthos*) were the dominant subcanopy tree species. Western red bud (*Cercis occidentalis*), Lemmon's ceanothus (*Ceanothus lemmonii*), poison oak (*Toxicodendron diversilobum*), manzanita spp. (*Arctostaphylos* spp.), Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus armeniacus*), and coffeeberry (*Rhamnus californica*) are the dominant shrubs present within the Study Area. Examples of dominant herbaceous species observed include yellow star tulip (*Calochortus monophyllus*), *Iris* sp., Sierran mountain misery (*Chamaebatia foliolosa*), bleeding heart (*Dicentra formosa*), Western brackenfern (*Pteridium aquilinum*), false Solomon's seal (*Maianthemum racemosum*), *Juncus* spp., *Carex* spp., and Western buttercup (*Ranunculus occidentalis*).

The riparian areas within the mixed conifer forest and woodland vegetation community of the Study Area were dominated by white alder (*Alnus rhombifolia*), big leaf maple, and various willow species (*Salix* spp.).

The mixed conifer forest and woodland vegetation community most resembles the Ponderosa pine – Incense Cedar – Douglas fir forest and woodland Alliance as characterized by the MCV.

4.2.4 Foothill Pine Woodland

Foothill pine woodland alliance must be composed of foothill pine (*Pinus sabiniana*) as 10 percent absolute cover and dominant in the tree canopy. Other tree species such as canyon live oak (*Quercus chrysolepis*) and interior live oak (*Q. wislizeni*) may be a co-dominant species in the canopy and sub canopy. With an open canopy, shrubs such as buck brush (*Ceanothus cuneatus*), manzanita species and chamise (*Adenostoma fasciculatum*) form a chaparral shrub layer and often has a sparse herbaceous layer.

Small portions of Frenchtown and Indiana School roads have foothill pine vegetation communities and are often on an elevational transition between the ponderosa pine – incense cedar – Douglas fir forest and woodland alliance and mixed oak forest and woodland vegetation communities.

4.2.5 Mixed Oak Forest and Woodland

Mixed oak forest and woodland is composed of areas of co-dominant oak species. The mixed oak forest and woodlands observed within the Study Area were dominated by interior live oak, black oak, and valley oak (*Quercus* sp.) in the lower elevation road segments. Portions of Frenchtown Road, Indiana School Road, and Frenchtown-Dobbins Road segments have mixed oak forest and woodland vegetation communities.

4.2.6 Valley Foothill Riparian

Valley foothill riparian vegetation community has valley oak as the dominant to co-dominant species in the tree canopy along riparian corridors. Other co-dominant species in the canopy observed within the Study Area include white alder, Gooding's willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*). Dominant species in the shrub layer observed in the Study Area include Himalayan blackberry and poison oak. A sedge species (*Carex* sp.) was observed in and along the water's edge of larger creeks such as Dry Creek on Frenchtown Road. Valley foothill riparian vegetation community was observed along portions of Frenchtown Road, Indiana School Road, and Frenchtown-Dobbins Road segments.

4.2.7 Bigleaf Maple Forest and Woodland

Bigleaf maple is the dominant or co-dominant tree in the canopy of the bigleaf maple forest and woodland vegetation community. Bigleaf maple forest and woodland co-dominant tree species observed within the Study Area include bigleaf maple (*Acer macrophyllum*) Sierra plum (*Prunus subcordata*), white alder, white fir, incense cedar, Douglas fir, and black oak. The bigleaf maple forest and woodland vegetation community occurs within the Study Area on a raised stream bench with seeps underlain by rocky soils. Bigleaf maple forest and woodland vegetation community was observed within the Oregon Hill Road segment.

4.3 Soils

Several soil units derived from serpentinite or other ultramafic parent materials have been reported to occur within the Study Area or its immediate vicinity (Horton 2017; Jennings et al. 1977; NRCS 2022). Gabbroic soil has been reported along Frenchtown Road between 1,475 and 2,100 feet AMSL, Frenchtown-Dobbins Road between 1,475 and 1,675 feet elevation AMSL, and Indiana School Road between 1,550 and 1,950 feet elevation AMSL. Ultramafic soil (mostly serpentinite with minor gabbro) has been reported along La Porte Road (west) between 2,600 and 3,300 feet elevation AMSL, and La Porte Road (east) between 3,500 and 4,030 feet elevation AMSL.

4.4 Potential Waters of the U.S.

Aquatic features within the Study Area include perennial streams, intermittent streams, ephemeral streams, seeps, wet meadows, and seasonal wetlands. These features are further described below.

4.4.1 Perennial Stream

Perennial streams are larger-order streams with continuous surface water flow throughout the year in at least parts of its catchment during season of normal rainfall. Groundwater is the primary source of water for stream flow during most of the year. Runoff from precipitation is a supplemental source of water for stream flow. Perennial streams have tributaries of lower order streams flowing into them such as smaller perennial, intermittent, and ephemeral streams. The perennial streams within the Study Area include Dry Creek on Frenchtown Road, Little Oregon Creek and Burnt Bridge Creek on Oregon Hill Road, Brandy Creek on Youngs Hill Road, and Willow Creek on Pendola Road.

4.4.2 Intermittent Stream

Intermittent streams are medium-order streams that have surface water flow during the wet or rainy season. Intermittent streams may not have surface water during dry periods. Runoff from precipitation is a supplemental source of water for stream flow. Intermittent streams often have narrower riparian corridors due to a deeper water table than perennial stream systems. ECORP biologists observed intermittent streams within the Study Area in the segments on Cleveland Avenue as well as on French Town Road, Indiana Ranch Road, Indiana School Road, Oregon Hill Road, Mountain House Road, Youngs Hill Road, and Baker Road segments.

4.4.3 Ephemeral Stream

Ephemeral streams are first-order streams that have flowing water only during or for a short duration after precipitation events in a typical year. Groundwater is not a source of year-round water for ephemeral streams since they are located above the water table year-round. Riparian vegetation, when it exists, is often in a narrow strip along the banks of ephemeral streams that may only be present during wet periods of the year. Biologists observed ephemeral streams in every road segment within the Study Area except the Marysville Road segment.

4.4.4 Seep

Seeps are aquatic features where groundwater reaches the surface with insufficient volume to have continuous flow. They are often found emerging from hillsides or on river terraces. Hydrophytic vegetation typically surrounds seeps due to the shallow water table. A large seep was observed within the Bigleaf maple vegetation community on Oregon Hill Road adjacent to Little Oregon Creek.

4.4.5 Wet Meadow

Wet meadows are a type of wetland with soils that are saturated for part or all of the growing season, which prevents the growth of trees and shrubs. They occur due to restricted drainage or the receipt of large amounts of water from groundwater, rain, or melted snow. They may also occur in riparian zones and around the shores of large lakes. Unlike a marsh or swamp, a wet meadow does not have standing water present except for brief periods of inundation and longer periods of saturation. Wet meadows are dominated by herbaceous hydrophytic vegetation that survive as seeds during the dry season and regenerate after inundation. Wet meadows were observed within the Study Area adjacent to the La Porte Road (east), Challenge Cutoff, and Frenchtown Road segments.

4.4.6 Seasonal Wetland

Seasonal wetlands are ephemeral wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and are dominated by perennial hydrophytic species. Biologists observed seasonal wetlands within the Study Area on the Frenchtown Road, Baker Road, and La Porte Road (east) segments.

4.4.7 Seasonal Wetland Swale

Seasonal wetland swales are generally linear wetland features that convey precipitation runoff and support a predominance of hydrophytic vegetation, but do not exhibit an ordinary high-water mark. These are typically inundated for short periods during and immediately after rain events, but usually maintain soil saturation for longer periods during the wet season. Biologists observed seasonal wetland swales within the Study Area on the Indiana Ranch Road, Frenchtown Road, La Porte Road (east), and Challenge Cutoff Road segments.

4.5 Wildlife

Wildlife observed within or flying over the Study Area during the site reconnaissance includes yellow warbler (*Setophaga petechia*), Steller's jay (*Cyanocitta stelleri*), California scrub jay (*Aphelocoma californica*), California quail (*Callipepla californica*), orange-crowned warbler (*Vermivora celata*), acorn woodpecker (*Melanerpes formicivorus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), red-breasted nuthatch (*Sitta canadensis*), red-winged blackbird (*Agelaius phoeniceus*), oak titmouse (*Baeolophus inornatus*), wild turkey (*Meleagris gallopavo*), turkey vulture (*Cathartes aura*), Pacific-slope flycatcher (*Empidonax difficilis*), cliff swallow (*Petrochelidon pyrrhonota*), tree swallow (*Tachycineta bicolor*), red-tailed hawk (*Buteo jamaicensis*), Cassin's vireo (*Vireo cassinii*), and Sierran treefrog (*Pseudacris sierra*).

4.6 Evaluation of Species Identified in the Literature Search

The Species Potential to Occur Table is located in Appendix C and lists all the special-status plant and wildlife species (as defined in Section 1.3) identified in the database queries and literature review as potentially occurring within the vicinity of the Study Area. Included in this table are the listing status for each species, a brief habitat description, approximate flowering period for plants and survey period for animals, and a determination on the potential for each species to occur within the Study Area.

The following section provides a brief description of each special-status species with potential to occur onsite. Species that are categorized only as *Absent* will not be discussed further in this document. An *Absent* determination was concluded for species where the Project did not possess suitable habitat, incorrect elevational range, or no other indication that the species would be found in that portion of the Study Area. Species discussions for those categorized as *Potential to Occur* will follow the species table.

4.6.1 Plants

A total of three federally listed plant species were identified as having the potential to occur in the region surrounding the Study Area based on the literature review and database inquiries (Appendix C). Of the 15 road segments, Stebbins' morning-glory (*Calystegia stebbinsii*) was determined to have potential to occur in one road segment, Indiana School Road. Pine Hill flannelbush (*Fremontodendron decumbens*), was determined to have potential to occur within the Study Areas on Frenchtown Dobbins, Frenchtown Road, and Indiana School Road. Additionally, Layne's ragwort (*Packera layneae*) was determined to have the potential to occur within the Study Areas on La Porte Road, Frenchtown Dobbins, Frenchtown Road, and

Indiana School Road segments. Further discussion about these special-status plants are provided below in sections 4.6.1.1, 4.6.1.2, and 4.6.1.3.

4.6.1.1 Stebbins' Morning-Glory

Stebbins' morning-glory (*Calystegia stebbinsii*) is listed as endangered pursuant to the federal ESA. This species is a rhizomatous herbaceous perennial that occurs on gabbroic or serpentinite soils in openings of chaparral habitats and cismontane woodlands. Stebbins' morning-glory blooms from April through July and is known to occur at elevations ranging from 605 to 3,575 feet AMSL. Stebbins' morning-glory is endemic to California; the current range of this species includes El Dorado and Nevada counties (CNPS 2023).

There are no CNDDDB occurrences of Stebbins morning-glory within 5 miles of the Study Area (CDFW 2023). The gabbroic or serpentinite soils in opening of chaparral habitat within the foothill pine woodlands of the Indiana School Road segment provides suitable habitat for this species. Stebbins morning glory has the potential to occur within the Indiana School Road segment within the Study Area.

4.6.1.2 Pine Hill Flannelbush

Pine Hill flannelbush (*Fremontodendron decumbens*) is listed as endangered pursuant to the federal ESA. This species is a perennial evergreen shrub that occurs on rocky serpentinite or gabbroic soils in chaparral and cismontane woodland communities. Pine Hill flannelbush blooms from April through July and is known to occur at elevations ranging from 1,395 to 2,495 feet AMSL. Pine Hill flannelbush is endemic to California; the current range for this species includes El Dorado, Nevada, and Yuba counties (CNPS 2023).

Two CNDDDB occurrences of Pine Hill flannelbush have been reported within 5 miles of the Study Area (CDFW 2023). The rocky serpentinite or gabbroic soils in the chaparral understory of the foothill pine woodland habitat within the Frenchtown-Dobbins Road, Frenchtown Road, and Indiana School Road segments provide suitable habitat for this species. Pine Hill flannelbush has the potential to occur within the Frenchtown-Dobbins Road, Frenchtown Road, and Indiana School Road segments within the Study Area.

4.6.1.3 Layne's Ragwort

Layne's ragwort (*Packera layneae*) is listed as threatened pursuant to the federal ESA. This species is an herbaceous perennial that occurs on rocky serpentinite or gabbroic soil in chaparral and cismontane woodland communities. Layne's ragwort blooms from April through August and is known to occur at elevations ranging from 655 to 3,560 feet AMSL. Layne's ragwort is endemic to California; the current range of this species includes El Dorado, Placer, Tuolumne, and Yuba counties (CNPS 2023).

Two CNDDDB occurrences of Layne's ragwort have been reported within 5 miles of the Study Area (CDFW 2023).

The rocky serpentinite or gabbroic soils in the chaparral understory of the foothill pine woodland and mixed conifer woodland habitat within the La Porte (west), Frenchtown-Dobbins Road, Frenchtown Road,

and Indiana School Road segments provide suitable habitat for this species. Layne's ragwort has the potential to occur within these road segments within the Study Area.

4.6.2 Invertebrates

A total of three federally listed, or candidate for listing, invertebrate species were identified as having the potential to occur in the region surrounding the Study Area based on the database inquiries and literature review (Appendix C). None of the invertebrate species have the potential to occur within the Study Area. No further discussion of those species is provided in this assessment.

4.6.3 Fish

Two federally listed fish species were identified as having potential to occur in the region surrounding the Study Area based on the literature review and database inquiries (Appendix C). However, upon further analysis and after the site visit, both species were considered to be absent from the Study Area due to the lack of suitable habitat and/or because the Study Area is outside of the known geographic range for these species. No further discussion of these species is provided within this assessment.

4.6.4 Amphibians

A total of three federally listed, or proposed for listing, amphibian species were identified as having the potential to occur in the region surrounding the Study Area based on the literature review and database inquiries (Appendix C). Foothill yellow-legged frog (*Rana boylei*) Feather River Distinct Population Segment does not occur in Yuba County and there is no suitable habitat for Sierra Nevada yellow-legged frog (*Rana sierrae*) within the Study Area. These two species are considered absent from the Study Area and no further discussion of these two species is provided within this assessment. Of the 15 road segments, California red-legged frog (*Rana draytonii*) was determined to be present in the Oregon Hill Road segment and have the potential to occur within the Baker Road, Youngs Hill Road, La Porte (east and west), Frenchtown Road, Mountain House Road, Indiana School Road, and Pendola Road segments of the Study Area. A brief discussion of California red-legged frog is provided below.

4.6.4.1 California red-legged frog

The California Red-Legged Frog (CRLF, *Rana draytonii*); is listed as threatened pursuant to the federal ESA. The current range and abundance of CRLF is greatly reduced from historic levels, with most remaining populations occurring along the coast from Marin County to Ventura County and in blue oak woodland, foothill pine/oak, and riparian deciduous forests in the foothills of the western slope of the Sierra Nevada (Barry and Fellers 2013).

Breeding habitat includes coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams. Creeks and ponds with dense growths of woody riparian vegetation, especially willows (*Salix* spp.) are preferred (Hayes and Jennings 1988). Adult CRLFs use dense, shrubby or emergent riparian vegetation near deep [≥ 0.6 to 0.9 meters (2 to 3 feet)], still or slow-moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail (*Typha* sp.) occur adjacent to open water. CRLFs breed from November through April (Jennings and

Hayes 1994), and larvae generally metamorphose by mid to late summer. Upland and riparian areas provide important sheltering habitat during summer when CRLFs aestivate in dense vegetation, burrows, and leaf litter.

There is one CNDDDB occurrence of CRLF within the Study Area where Oregon Hill Road crosses Little Oregon Creek (CDFW 2023). There is designated critical habitat for CRLF within the Oregon Hill Road segment (Figure 2). The intermittent to perennial creeks, seasonal wetlands, and ponds, and the surrounding riparian and upland areas, within the mixed oak woodlands, foothill pine woodland, mixed conifer woodland and forest, valley foothill riparian, and bigleaf maple woodland within the Baker Road, Youngs Hill Road, La Porte (east and west), Frenchtown Road, Oregon Hill Road, Mountain House Road, Indiana School Road, and Pendola Road segments provides suitable habitat for this species. California red-legged frog is considered *Present* within the Oregon Hill Road segment due to the CNDDDB occurrence within the Study Area and has potential to occur within the Baker Road, Youngs Hill Road, La Porte (east and west), Frenchtown Road, Mountain House Road, Indiana School Road, and Pendola Road segments in the Study Area.

4.6.5 Reptiles

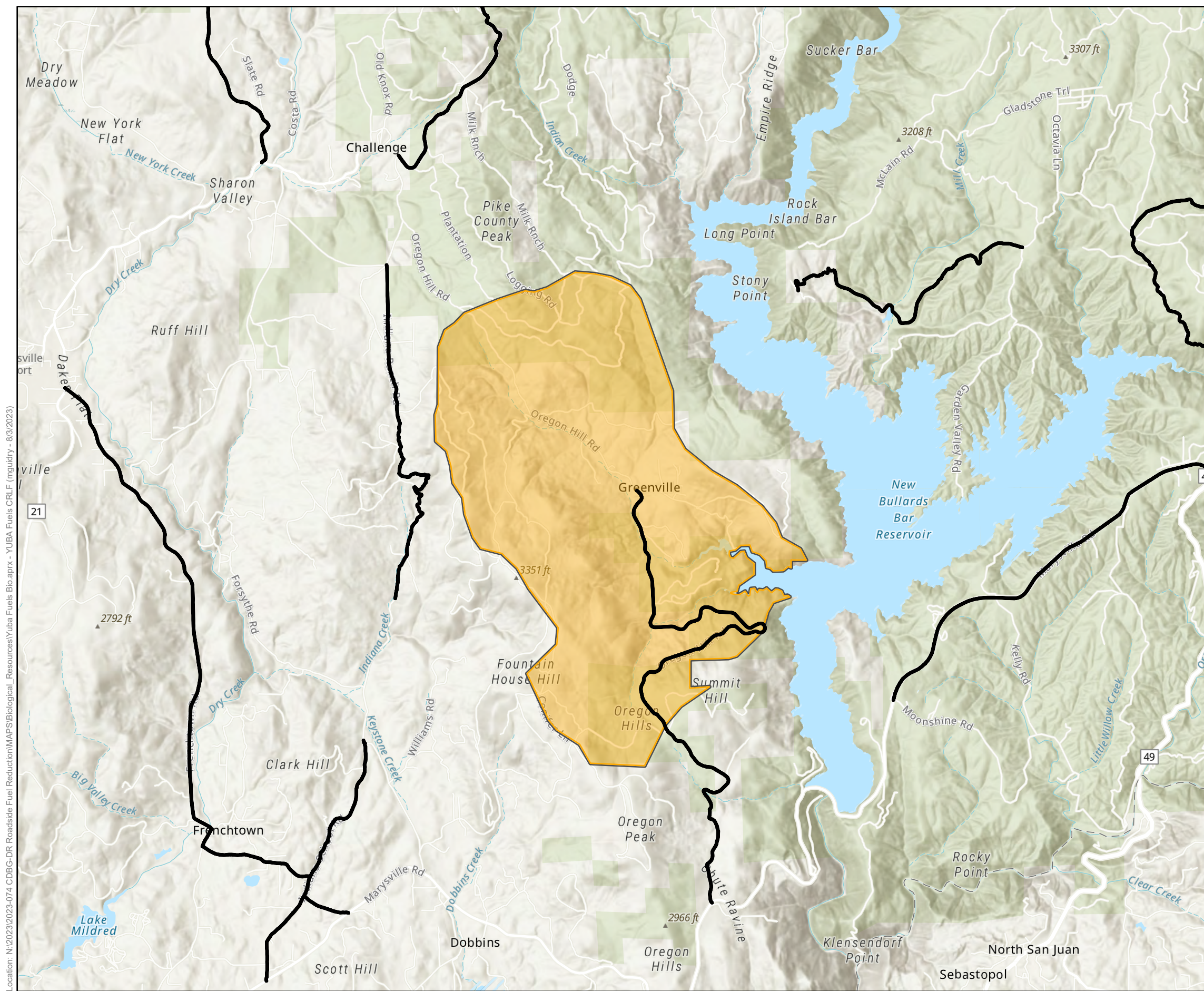
One federally listed reptile species was identified as having the potential to occur in the vicinity of the Study Area based on the database inquiries and literature review (Appendix C). Giant garter snake (*Thamnophis gigas*) was determined to be absent from the Study Area due to the lack of suitable habitat or due to the Study Area being outside of the known elevational range for the species. No further discussion of this species is provided in this assessment.

4.6.6 Birds

One federally listed bird species was identified as having the potential to occur in the vicinity of the Study Area based on the database inquiries and literature review (Appendix C). California spotted owl (*Strix occidentalis occidentalis*) was determined to have the potential to occur within the Baker Road, Youngs Hill Road, La Porte Road (east and west), Marysville Road, Oregon Hill Road, Mountain House Road, Challenge Cutoff, Indiana Ranch Road, and Pendola Road segments (Appendix C). A brief discussion of California spotted owl is provided below.

4.6.6.1 California Spotted Owl

The California spotted owl (*Strix occidentalis occidentalis*) is proposed to be listed as threatened pursuant to the federal ESA. This is a subspecies of spotted owl, which occurs primarily on the west slope of the Sierra Nevada, with isolated metapopulations along the central California Coastal range and Southern California (USFWS 2017). A year-round resident in most of its range, breeding range occurs from 1,000 to almost 8,000 feet, with some birds migrating to lower elevations in the winter (Verner et al. 1992). This is



Map Contents

- Study Area
- California Red Legged Frog Critical Habitat

Sources: Yuba County, USFWS, Esri

The inset map provides a broader geographical context, showing the study area's location relative to surrounding regions. A red rectangular box highlights the specific area detailed in the main map, which is centered on the Oregon Hills.

an owl primarily of dense Ponderosa pine and mixed coniferous forest, with old-growth trees, snags, a complex canopy, and abundant woody debris (Davis and Gould 2008). Wintering may occur in blue oak (*Quercus douglasii*)-gray pine (*Pinus sabiniana*) foothill riparian forests. California spotted owls do not build their own nests, but rather use naturally occurring platforms, cliffs, and abandoned common raven (*Corvus corax*), raptor, or squirrel nests. Nesting occurs from March through September.

There are CNDDDB California spotted owl activity centers located within 5 miles of all road segments within the Study Area (CDFW 2023). The mixed coniferous forests within the Baker Road, Youngs Hill Road, La Porte Road (east and west), Marysville Road, Oregon Hill Road, Mountain House Road, Challenge Cutoff, Indiana Ranch Road, and Pendola Road segments provides suitable nesting habitat for this species. California spotted owl has the potential to occur within the Baker Road, Youngs Hill Road, La Porte Road (east and west), Marysville Road, Oregon Hill Road, Mountain House Road, Challenge Cutoff, Indiana Ranch Road, and Pendola Road segments within the Study Area.

4.6.6.2 Other Protected Birds

All native or naturally occurring birds and their occupied nests/eggs are protected under the federal MBTA. The Study Area supports suitable nesting habitat for a variety of common birds protected under these regulations.

4.6.7 Mammals

No special-status mammals were identified as having potential to occur in the vicinity of the Study Area based on the database inquiries and literature review (Appendix C).

4.7 Critical Habitat and Essential Fish Habitat

There is CRLF Critical Habitat mapped within the Oregon Hill Road segment (Figure 2.) of the Study Area (USFWS 2023b). The Study Area does not contain Essential Fish Habitat (NOAA 2022).

5.0 RECOMMENDATIONS

This section summarizes recommended measures to avoid potential impacts to biological resources from the proposed Project.

5.1 Water of the U.S.

All road segments within the Study Area support potentially jurisdictional aquatic features. The following measures are recommended to avoid impacts to potentially jurisdictional aquatic features:

- The Project will avoid removing vegetation within potentially jurisdictional aquatic features and associated riparian habitat within the aquatic resource avoidance areas identified in the Aquatic Resource Avoidance Map (Appendix D). In addition, the Project will avoid adding fill (i.e., any Project-related materials) to potentially jurisdictional aquatic features within the Project Area resource avoidance areas. A qualified biologist will establish aquatic resource avoidance areas with survey flagging prior to project initiation.

- Fueling of equipment will be conducted more than 100 feet from areas of potentially jurisdictional aquatic features identified in the Aquatic Resource Avoidance Map located in Appendix D.

5.2 Special-Status Plants

There is potential for three federally listed plants to occur within the Study Area. The following measures are recommended to minimize potential impacts to special-status plants:

- Perform focused plant surveys within the identified road according to USFWS and CDFW protocols prior to construction. Surveys should be conducted by a qualified biologist within suitable habitats for target species and timed according to the appropriate phenological stage for identifying target species. The blooming period/survey window for Stebbins' morning-glory (*Calystegia stebbinsii*) and Pine Hill flannelbush (*Fremontodendron decumbens*) is April through July, and April through August for Layne's ragwort (*Packera layneae*). Known reference populations should be visited and/or local herbaria records should be reviewed, if available, prior to surveys to confirm the phenological stage of the target species. If no special-status plants are found within the Study Area, no further measures pertaining to special-status plants are necessary.
- If special-status plants are identified within 50 feet of the Project impact area, implement the following measures:
 - The Project will avoid occurrences of federally listed plant species by establishing and clearly demarcating avoidance zones around the plant occurrences prior to construction. Avoidance zones should include the extent of the special-status plants plus a minimum 50-foot buffer, unless otherwise determined by a qualified biologist, and should be maintained until the completion of construction.

5.2.1 Amphibians

There is potential for one federally listed amphibian to occur within the Study Area. The following measures are recommended to minimize potential impacts to special-status amphibians:

5.2.1.1 California Red-Legged Frog

California red-legged frog is considered present within the Oregon Hill Road segment due to the CNDDDB occurrence within the Study Area and has potential to occur within the Baker Road, Youngs Hill Road, La Porte (east and west), Frenchtown Road, Mountain House Road, Indiana School Road, and Pendola Road segments in the Study Area. Implementation of the following measure would avoid impacts to CRLF:

- The Project shall be designed to avoid Project activities within or adjacent to aquatic features and their associated riparian habitat within the Study Area. The Project will avoid impacts to CRLF and its habitat with the implementation of the aquatic resource avoidance areas measure.
- Prior to the start of construction, a Worker Environmental Awareness Program (WEAP) will be prepared that includes species identification, procedures if CRLF is encountered, life history descriptions, habitat requirements during various life stages, the species protected status, and penalties for violating the federal ESA. A CRLF-qualified biologist will present the WEAP to all

personnel working in the Project Area prior to the start of Project activities. The WEAP may be videotaped and used to train personnel not present for the initial training. A WEAP sign-in sheet will be signed by all personnel that have taken the WEAP training, maintained onsite during Project activities and submitted to the County for record-keeping purposes at Project completion.

- If CRLF is observed during the course of Project activities, Project activities will be immediately halted within 100 feet of the observation and the CRLF will be allowed to leave on its own volition.

5.2.2 Special-Status Birds and Migratory Bird Treaty Act-Protected Birds (Including Nesting Raptors)

5.2.2.1 California Spotted Owl

California spotted owl suitable nesting habitat occurs within and adjacent to the Study Area. If nesting California spotted owl are present, the Project could result in harassment to nesting individuals. In order to avoid impacts to California spotted owl, the following avoidance measures are recommended:

- On all road segments that have the potential for California spotted owl to occur, project activities shall be conducted in October through February whenever possible, outside of the California spotted owl nesting season. The California spotted owl nesting season is March through September.
- If Project activities are to occur during the California spotted owl nesting season within road segments where California spotted owl has the potential to occur, then *Disturbance-Only Project* surveys according to the USFWS 2012 northern spotted owl survey protocol shall be conducted by a qualified biologist. *Disturbance-Only Project* surveys include a 1-year six-visit survey that covers all spotted owl habitat within 0.25 mile from the Study Area.

5.2.2.2 Nesting Birds and Raptors

Nesting birds and raptors have the potential to nest within the Study Area. ECORP recommends the following measure to minimize potential impacts to nesting birds and raptors:

- Project activities shall be conducted October through January, outside of the typical nesting season (generally February 1 through August 31).
- If Project activities are to occur during the nesting season, conduct a preconstruction nesting bird survey of all suitable nesting habitat within 14 days of the commencement of Project activities in a given area of Project activities. The survey shall be conducted within a 500-foot radius of Project work areas for raptors and within a 100-foot radius for other nesting birds. If any active nests are observed, these nests shall be protected by an avoidance buffer established by a qualified biologist until the breeding season has ended or until a qualified biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival. A Preconstruction Nesting Bird Survey Report will be prepared by a qualified biologist that includes surveyors' names and affiliation, dates and times of surveys, methods, results, and

recommendations. Additional nesting bird survey(s) will be conducted if there is a lapse in Project activities of 15 days or longer for areas that have been surveyed. Preconstruction nesting surveys are not required for construction activity outside the nesting season.

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LIST OF APPENDICES

Appendix A – Results of Database Queries

Appendix B – Representative Site Photographs

Appendix C – Species Potential to Occur Table

Appendix D – Aquatic Resources Avoidance Map

Results of Database Searches

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Forest Service

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Flowering Plants

| NAME | STATUS |
|---|------------|
| Layne's Butterweed <i>Senecio layneae</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4062 | Threatened |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the

probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

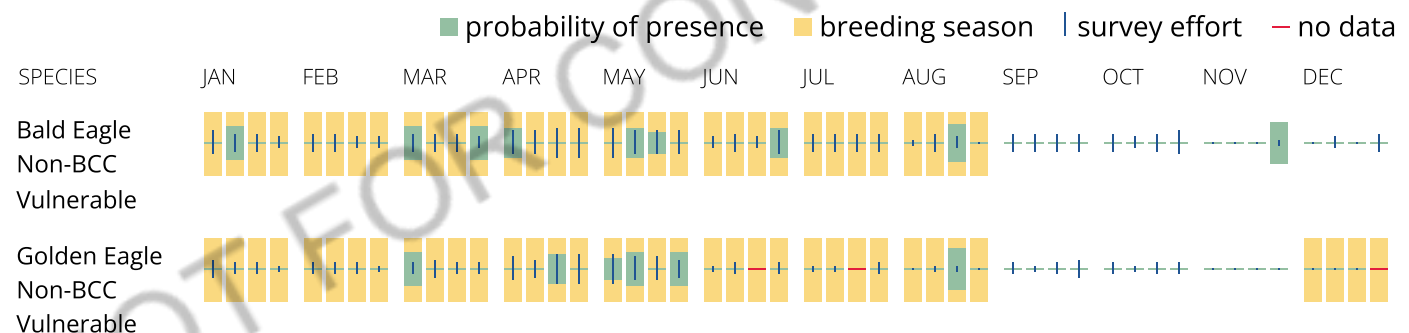
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date

range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 15 to Aug 10 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
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To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

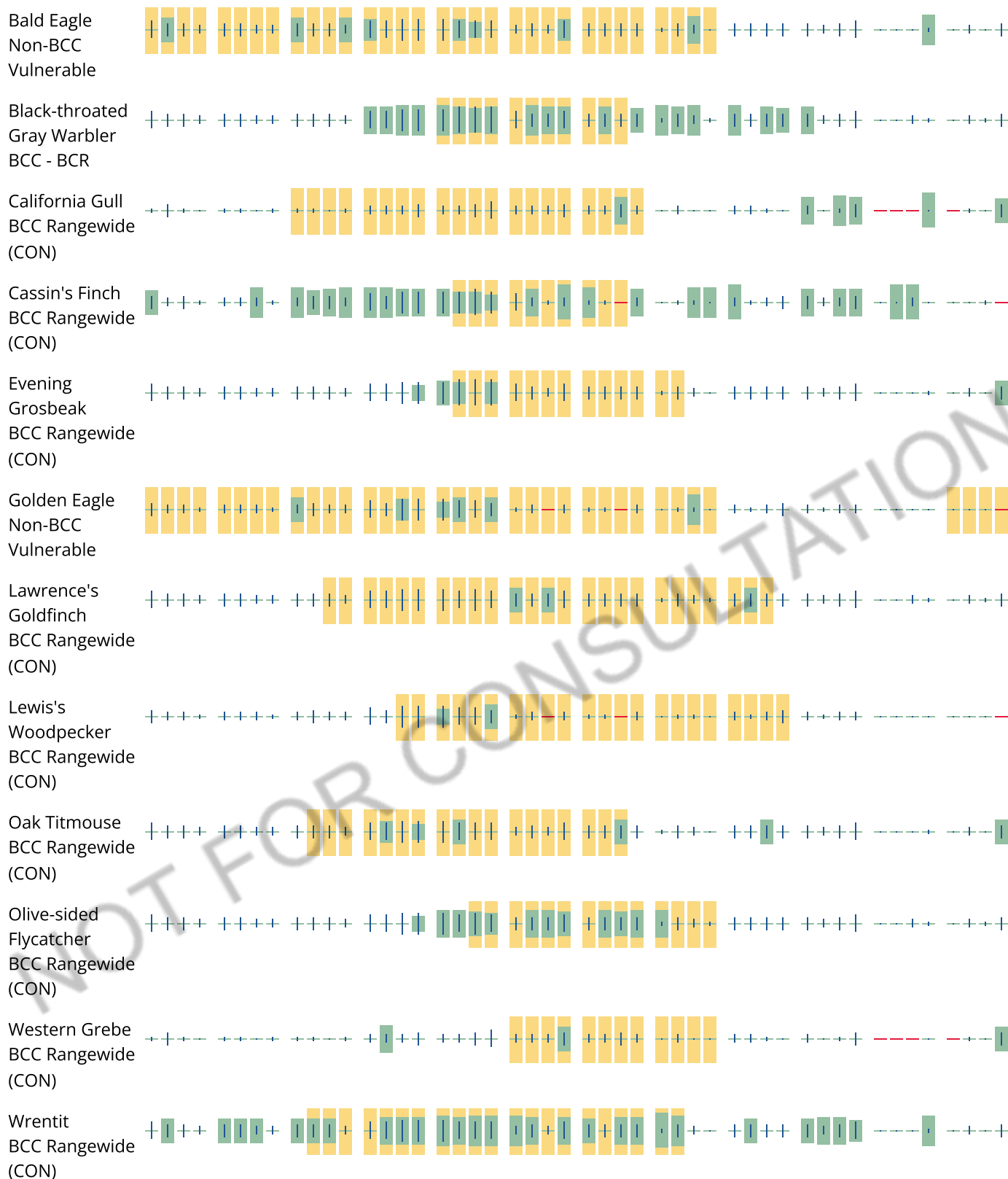
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in

offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

FRESHWATER POND

[PUBK](#)

RIVERINE

[R5UBF](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Butte and Yuba counties, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|---------------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |
| Foothill Yellow-legged Frog <i>Rana boylei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133 | Proposed Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Crustaceans

| NAME | STATUS |
|---|------------|
| Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498 | Threatened |

Flowering Plants

| NAME | STATUS |
|---|------------|
| Layne's Butterweed <i>Senecio layneae</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4062 | Threatened |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ()

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

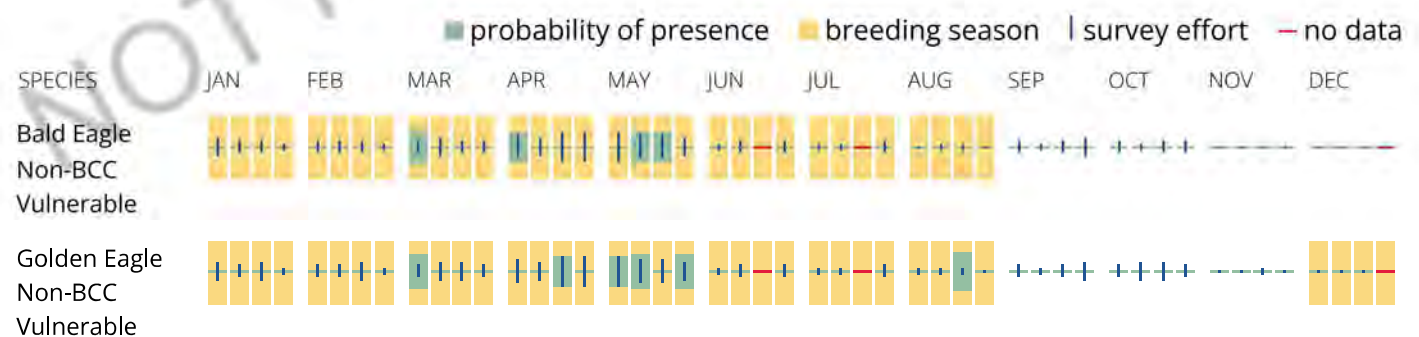
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 15 to Aug 10 |

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

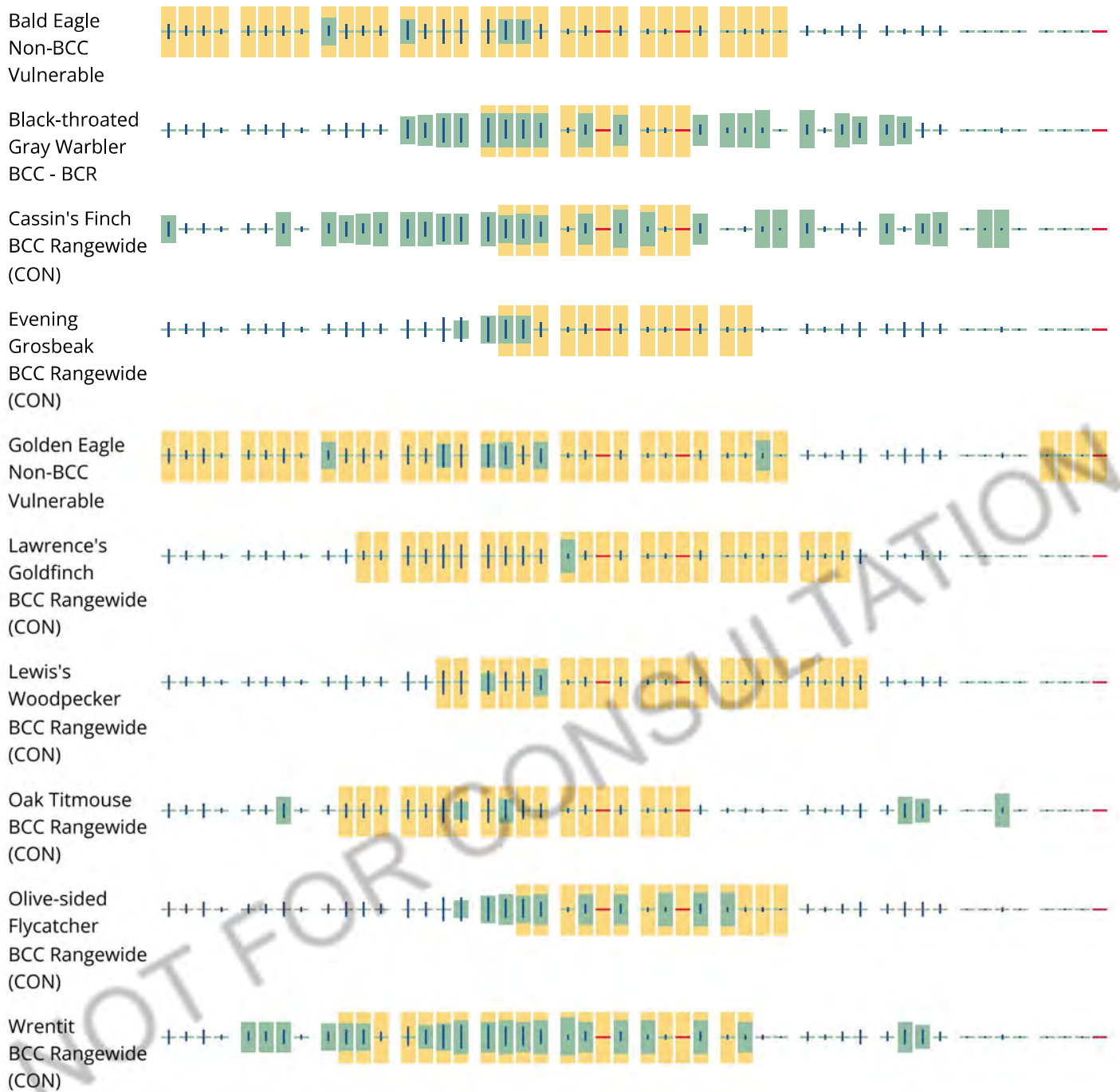
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

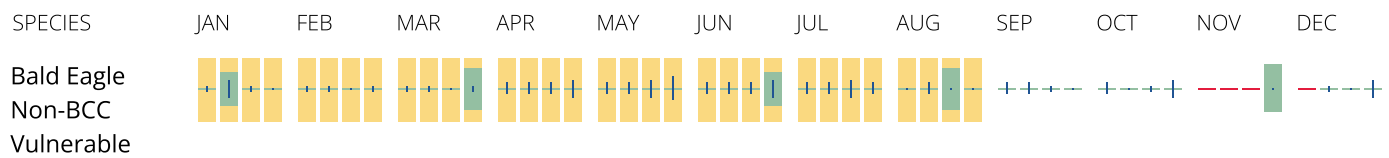
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

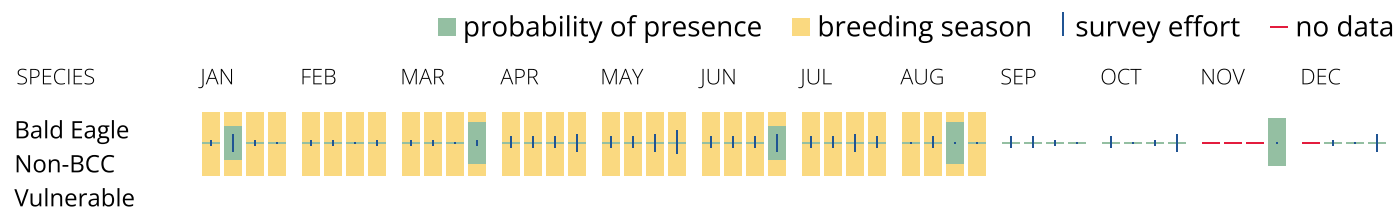
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Crustaceans

| NAME | STATUS |
|---|------------|
| Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498 | Threatened |

Flowering Plants

| NAME | STATUS |
|------|--------|
|------|--------|

Layne's Butterweed *Senecio layneae*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4062>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

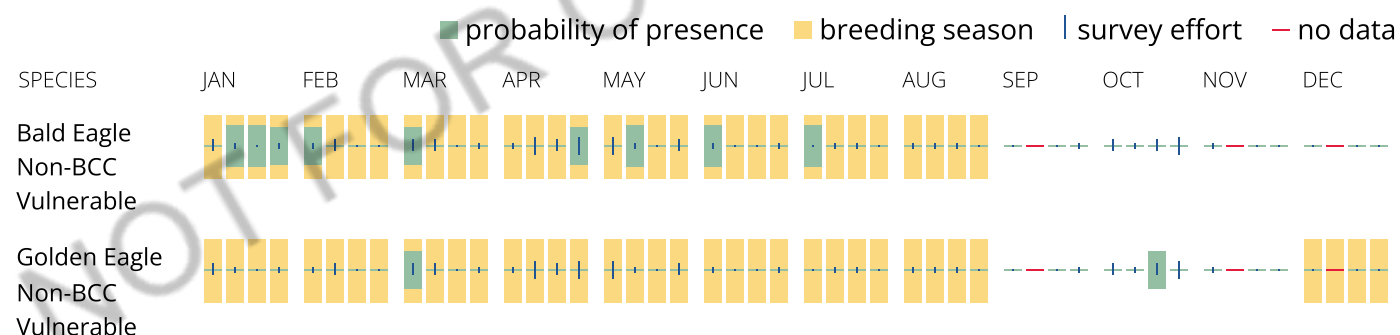
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see

exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |
| California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Jan 1 to Jul 31 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 15 to Aug 10 |

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

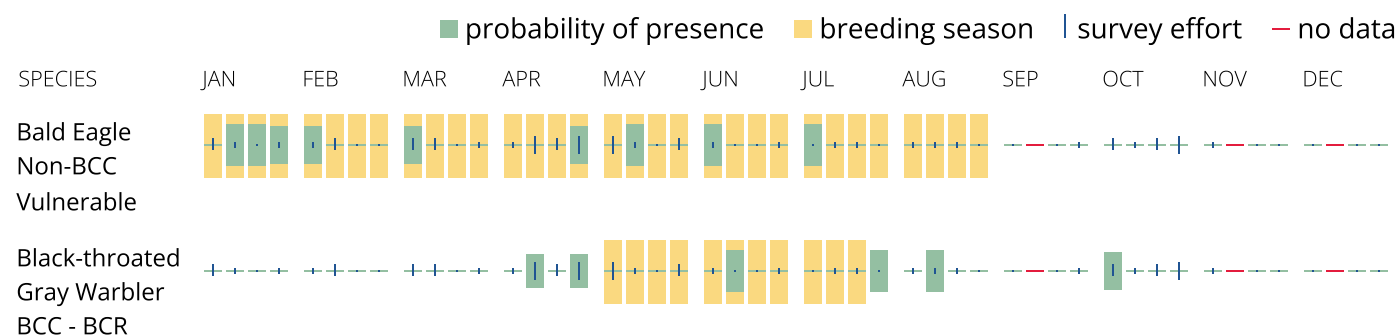
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R3UBH](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

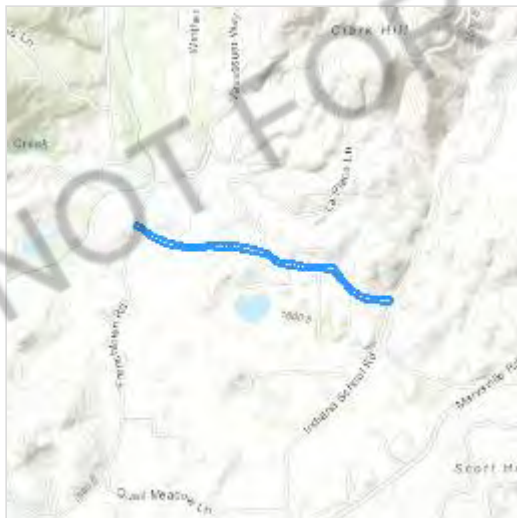
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Crustaceans

| NAME | STATUS |
|---|------------|
| Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498 | Threatened |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

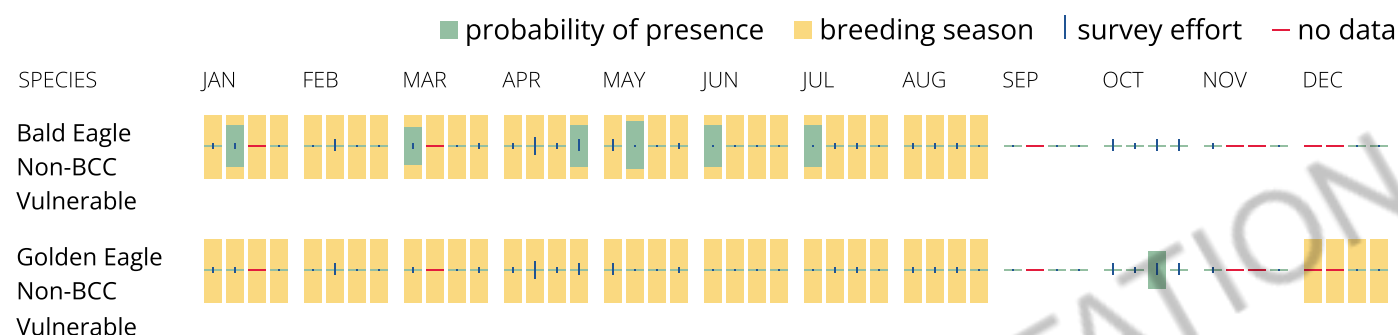
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your **project location**. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black-throated Gray Warbler *Dendroica nigrescens*

Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

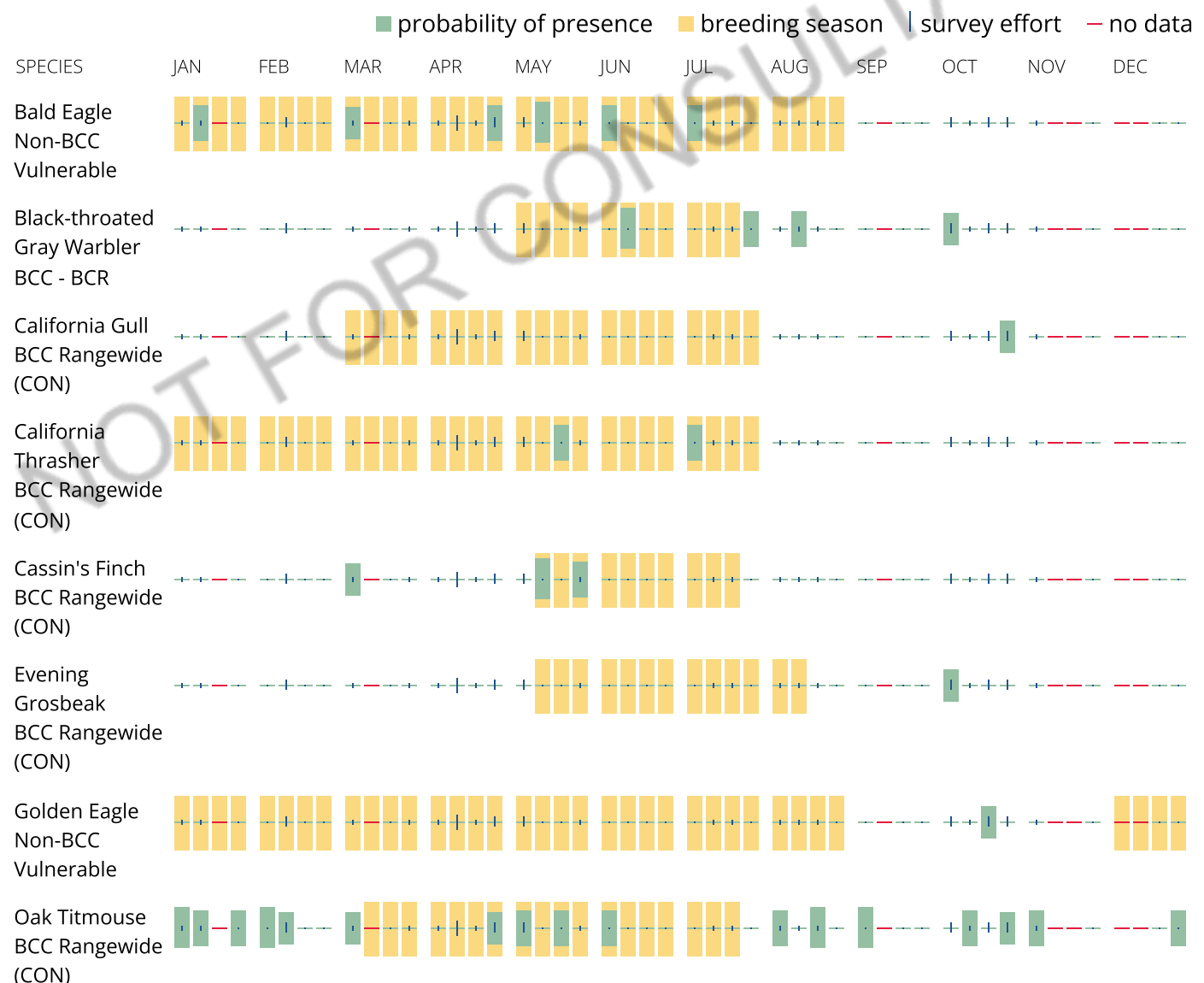
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

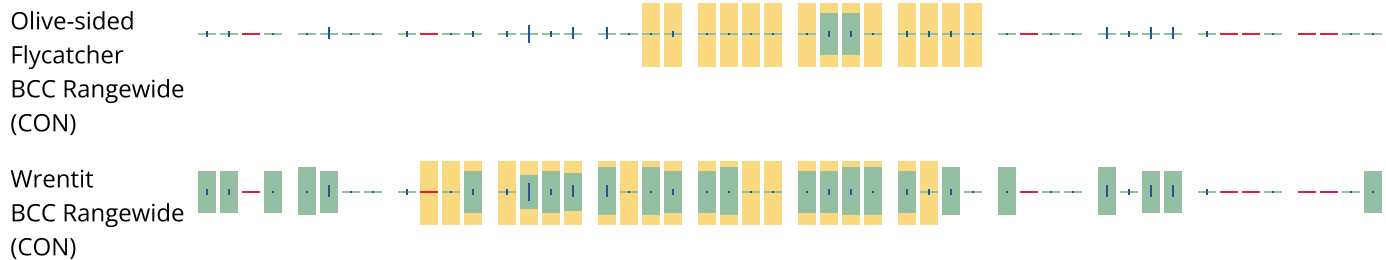
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability

of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

Refuge and fish hatchery information is not available at this time

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R5UBFx](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Flowering Plants

| NAME | STATUS |
|---|------------|
| Layne's Butterweed <i>Senecio layneae</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4062 | Threatened |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the

probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

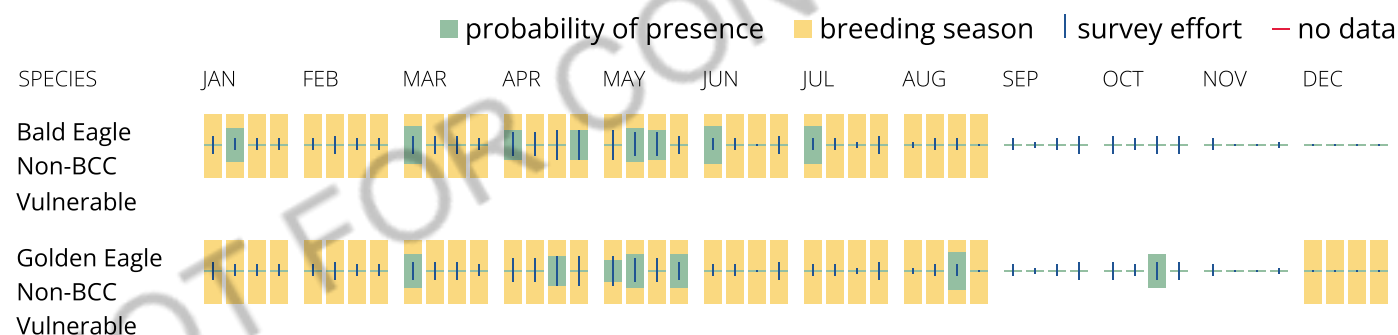
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date

range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |
| California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Jan 1 to Jul 31 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 15 to Aug 10 |

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

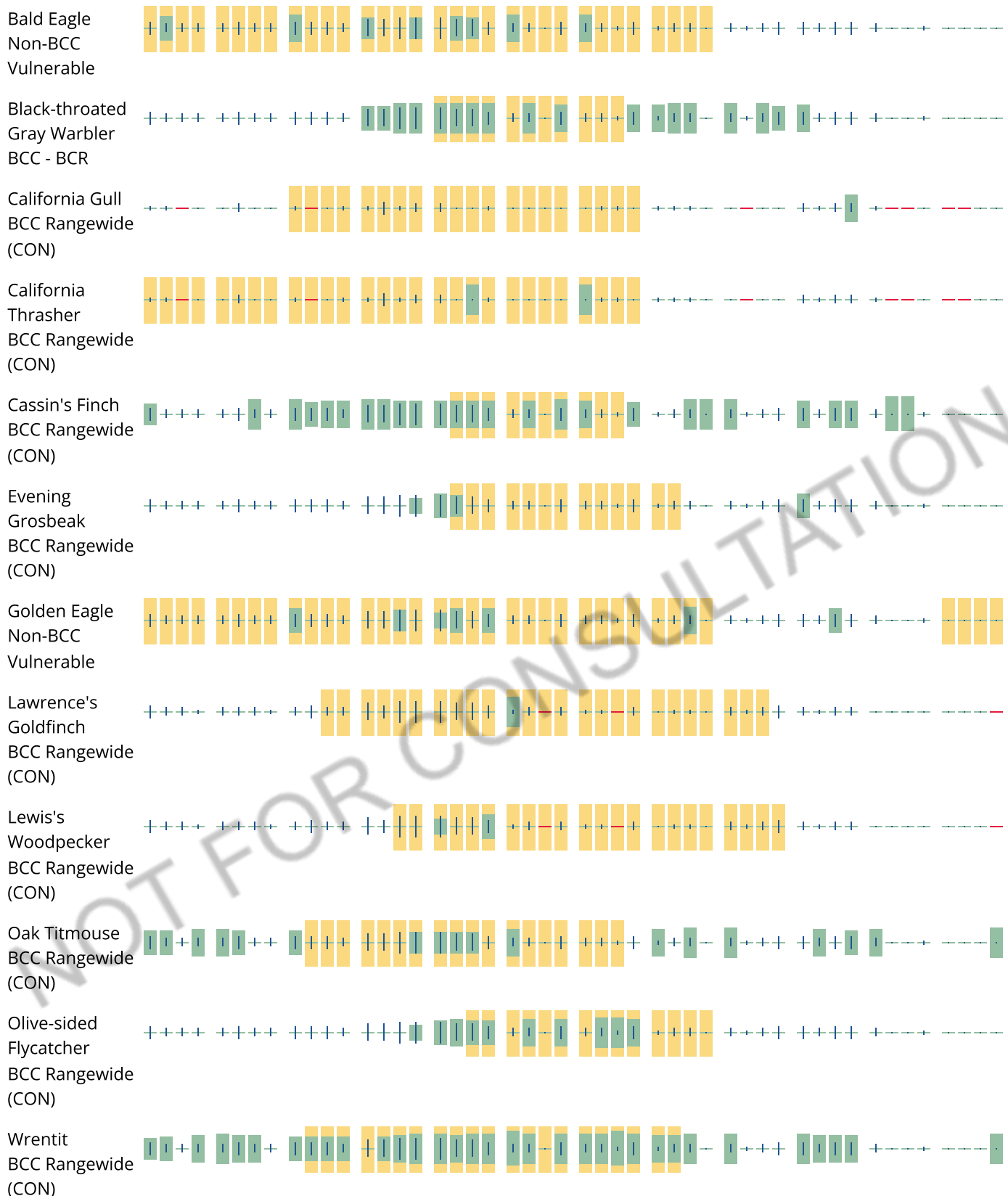
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the

locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

RIVERINE

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

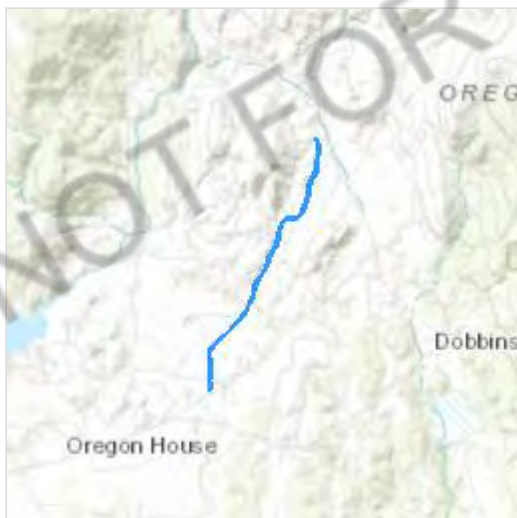
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Forest Service

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

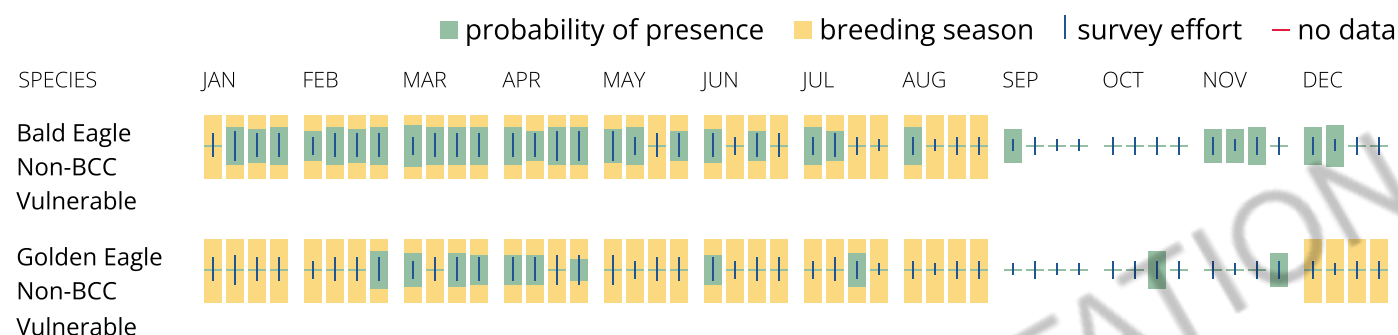
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your **project location**. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black-throated Gray Warbler *Dendroica nigrescens*

Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

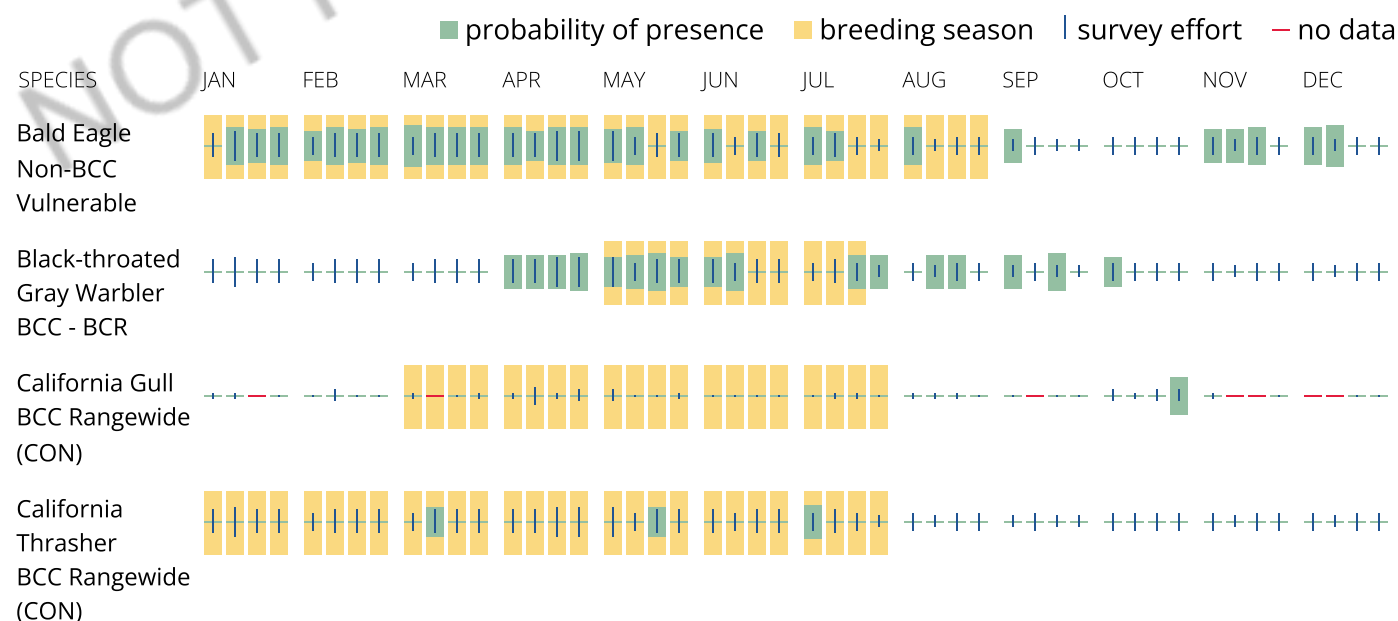
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

RIVERINE

[R5UBFx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |
| Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9529 | Endangered |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and

understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

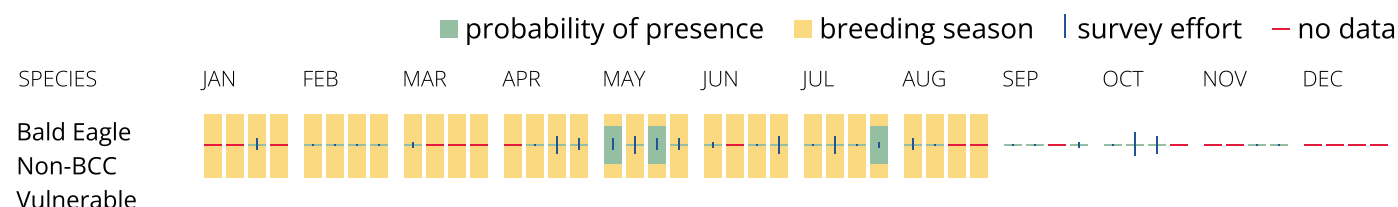
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |

Black-throated Gray Warbler *Dendroica nigrescens*

Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of

presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

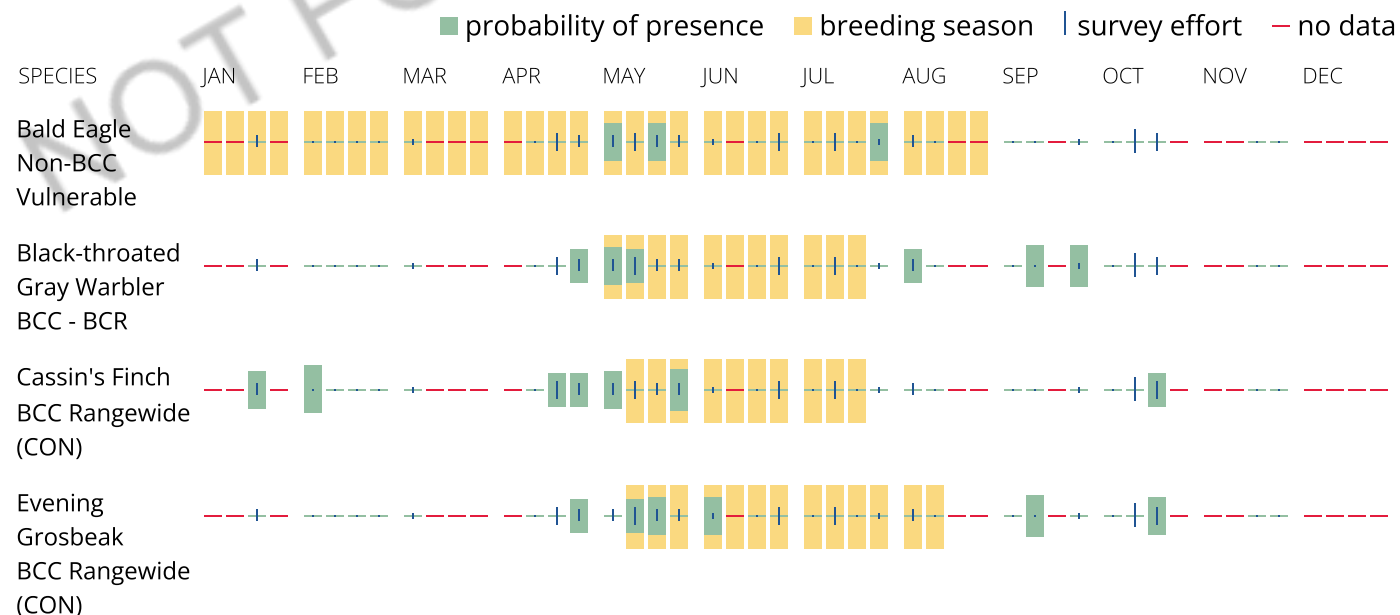
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Olive-sided
Flycatcher
BCC Rangewide
(CON)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is

the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

Refuge and fish hatchery information is not available at this time

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOA](#)

RIVERINE

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Butte and Yuba counties, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Forest Service

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|---------------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |
| Foothill Yellow-legged Frog <i>Rana boylei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133 | Proposed Threatened |
| Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9529 | Endangered |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Flowering Plants

| NAME | STATUS |
|------|--------|
|------|--------|

Layne's Butterweed *Senecio layneae*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4062>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

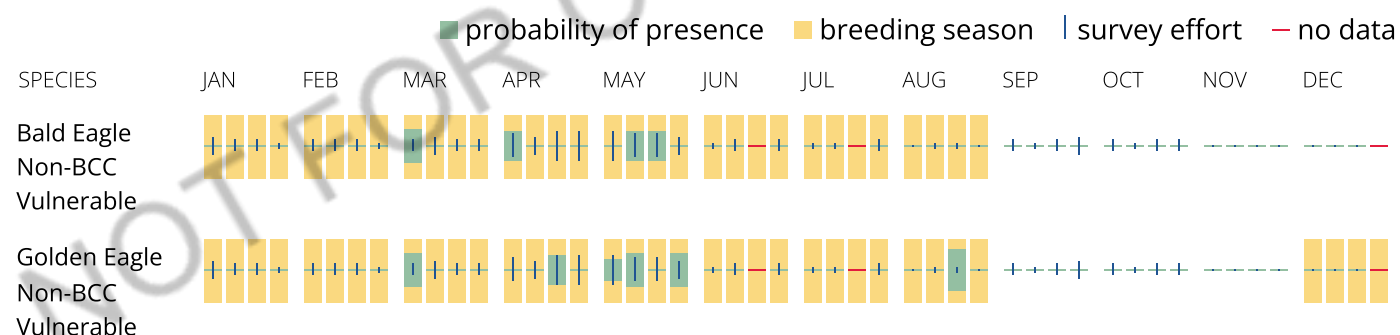
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see

exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 15 to Aug 10 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Lewis's Woodpecker *Melanerpes lewis*

Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9408>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events

for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

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Survey Effort (|)

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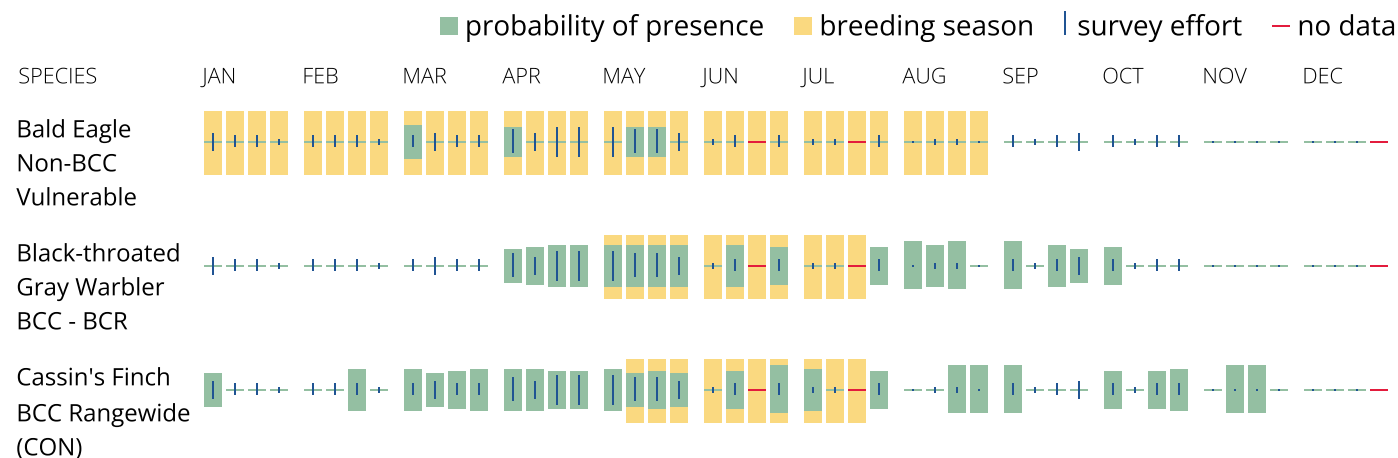
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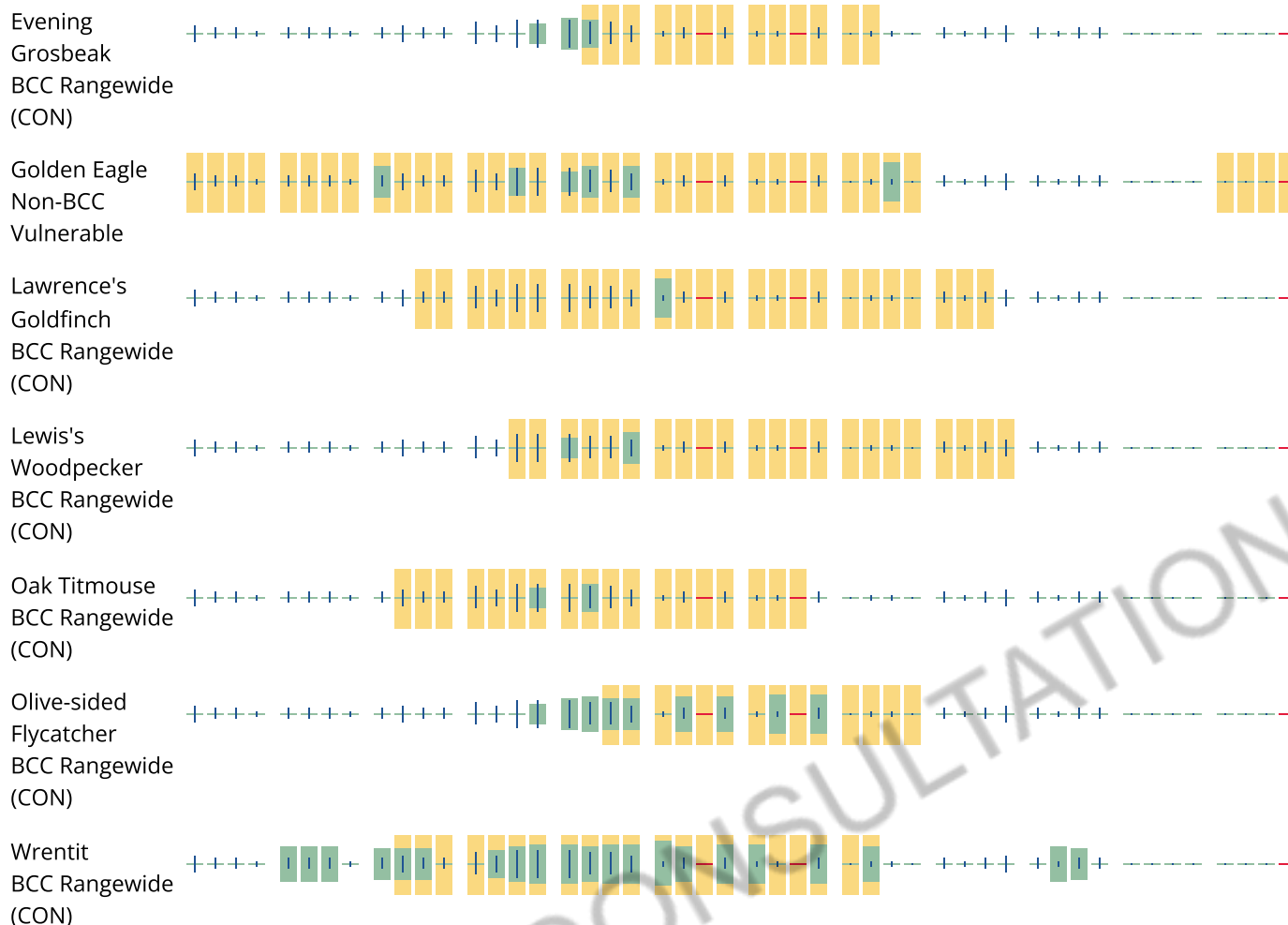
No Data (—)

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

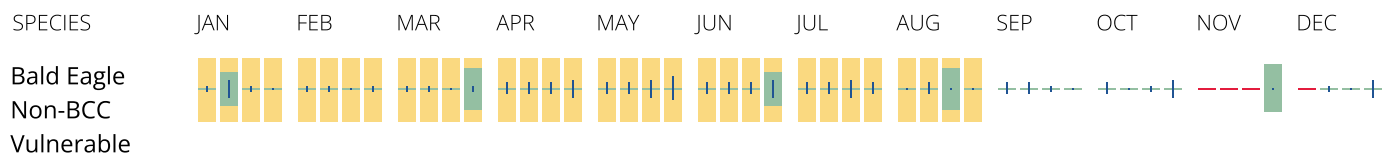
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
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To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

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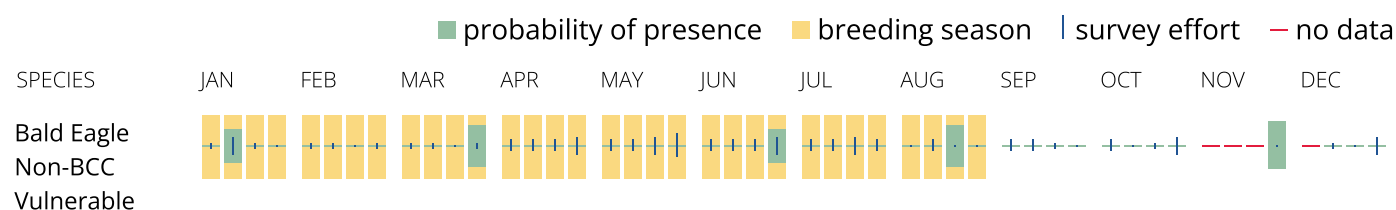
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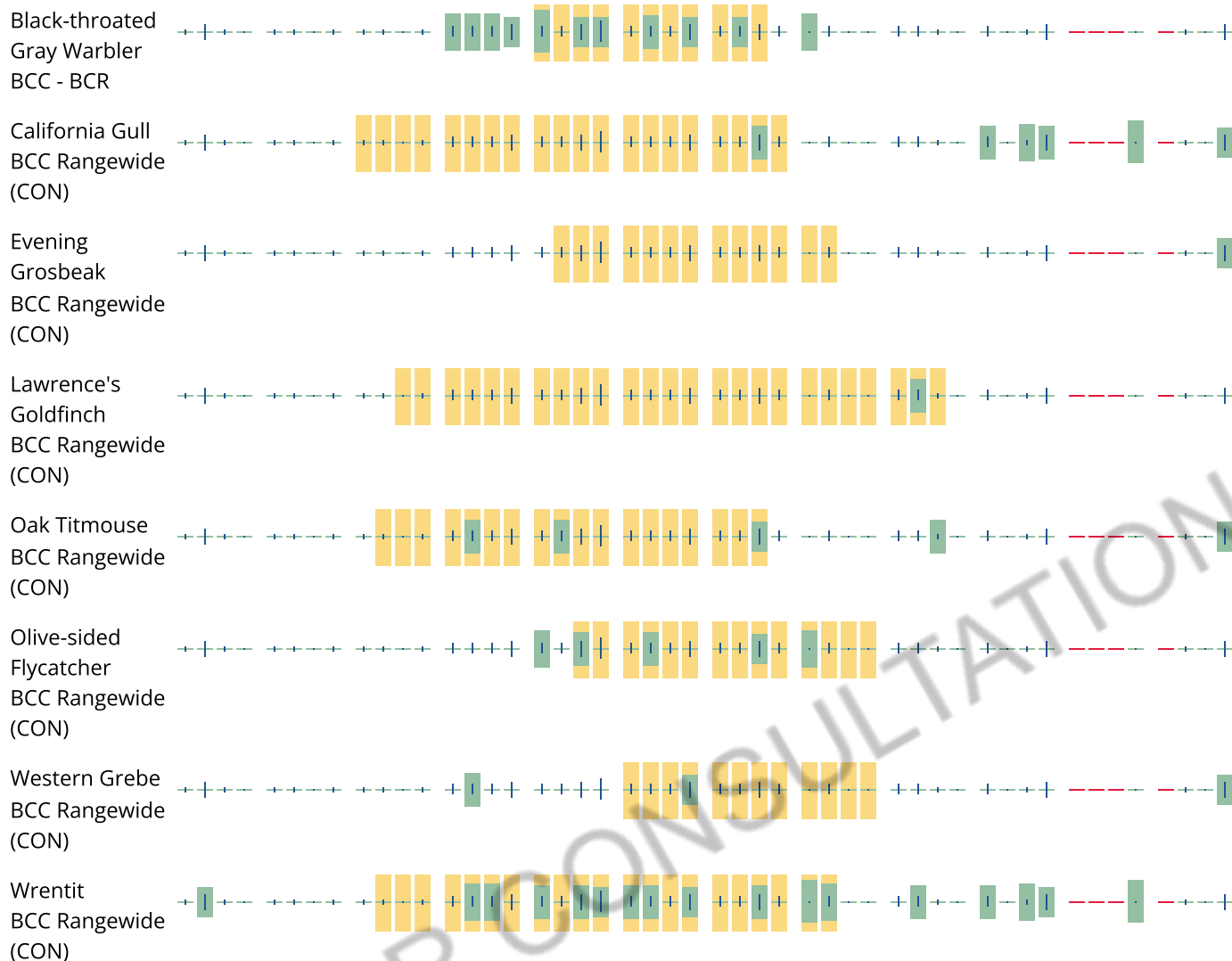
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Survey Timeframe

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

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To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

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3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

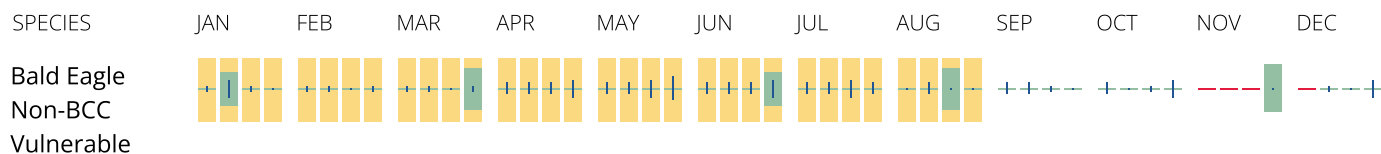
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

| NAME | TYPE |
|---|-------|
| California Red-legged Frog <i>Rana draytonii</i> https://ecos.fws.gov/ecp/species/2891#crithab | Final |

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Dec 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

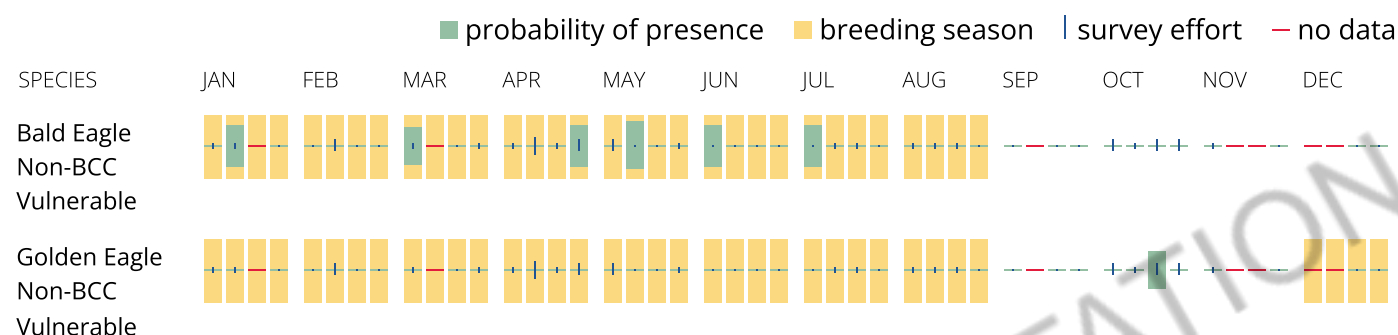
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your **project location**. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black-throated Gray Warbler *Dendroica nigrescens*

Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

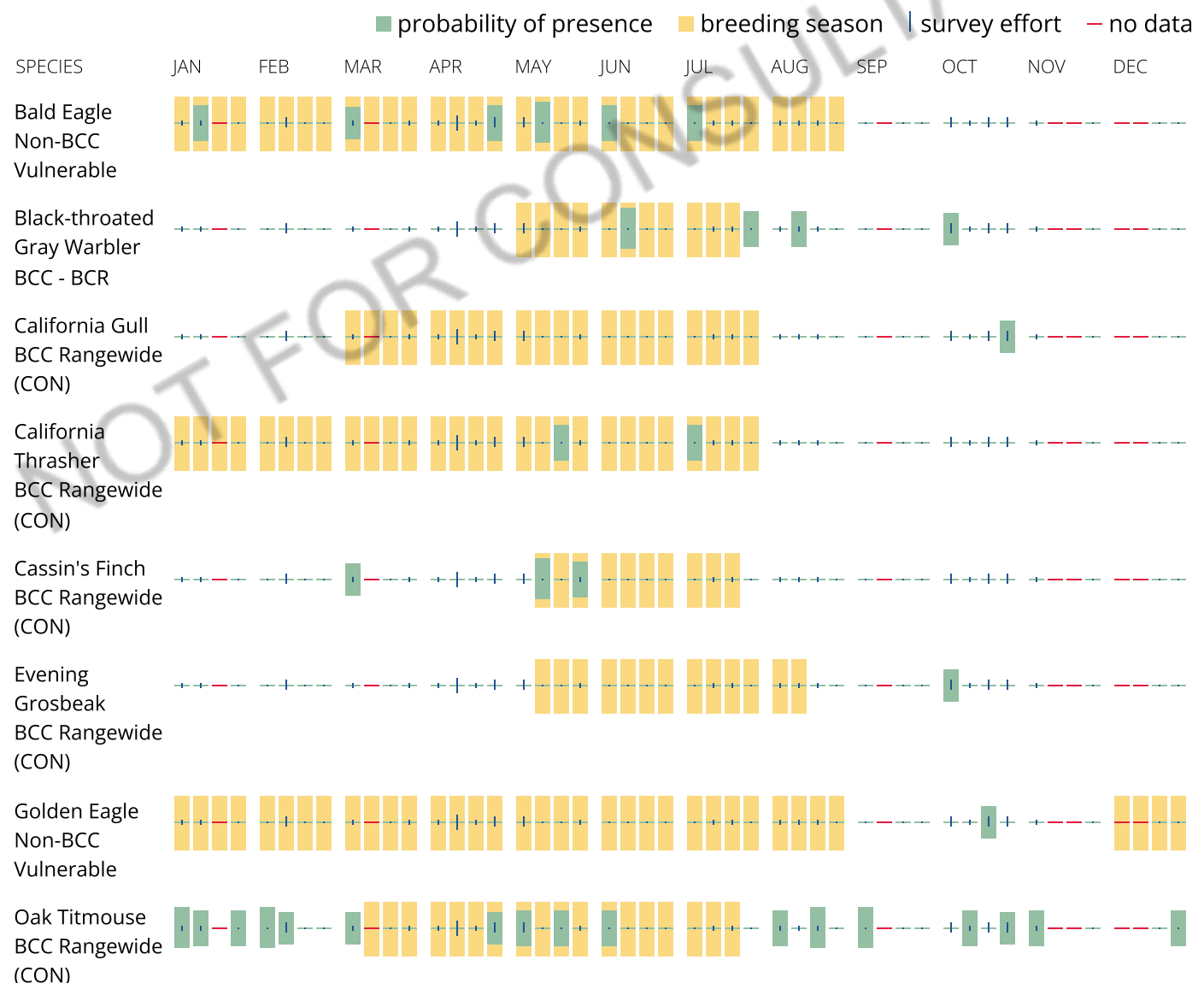
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

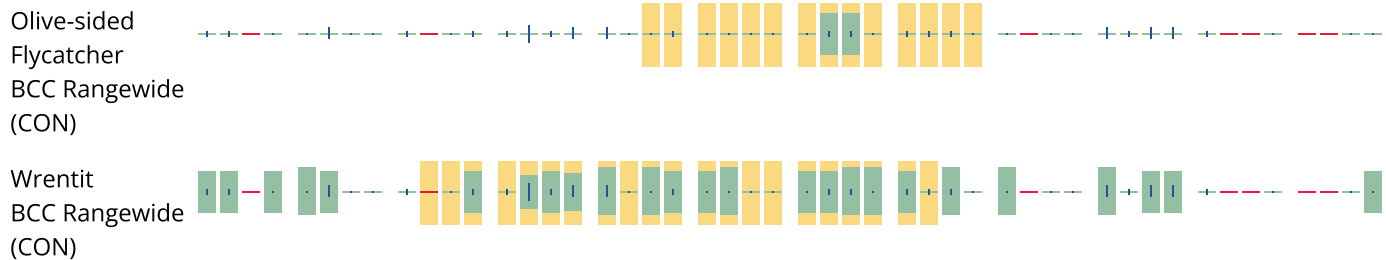
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability

of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

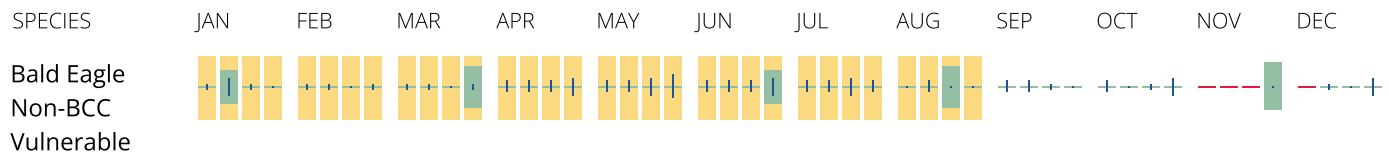
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds May 1 to Jul 20 |
| California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

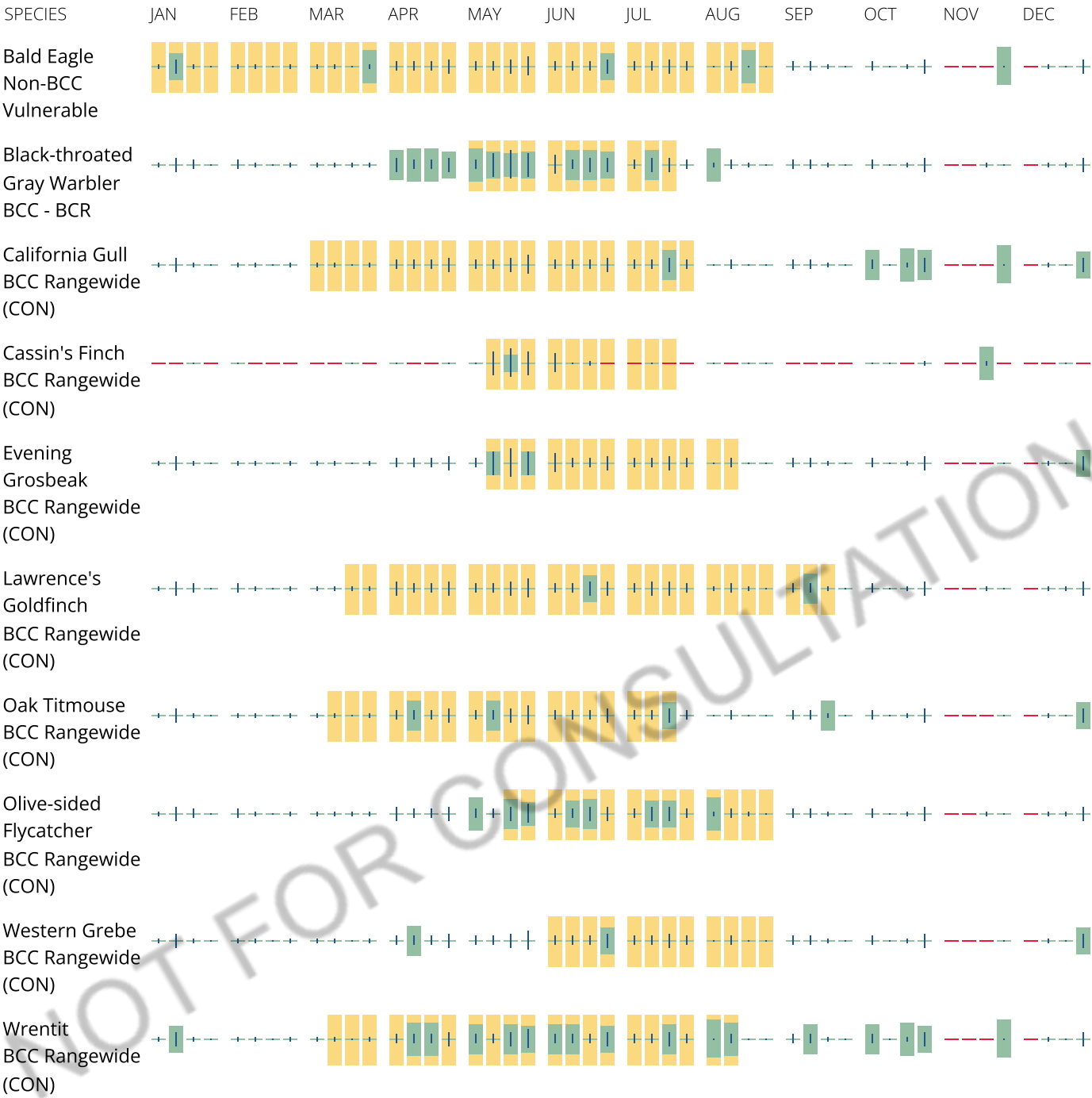
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

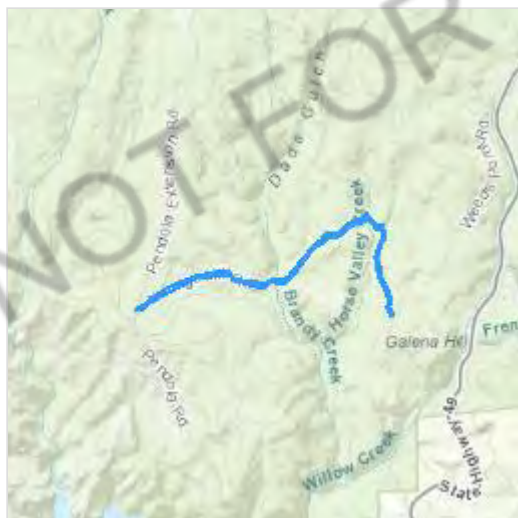
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Yuba County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

Resource Summary

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your **project location**. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Black-throated Gray Warbler *Dendroica nigrescens*

Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular
Bird Conservation Regions (BCRs) in the continental USA

Cassin's Finch *Carpodacus cassinii*

Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its
range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Evening Grosbeak *Coccothraustes vespertinus*

Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its
range in the continental USA and Alaska.

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its
range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its
range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events

for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

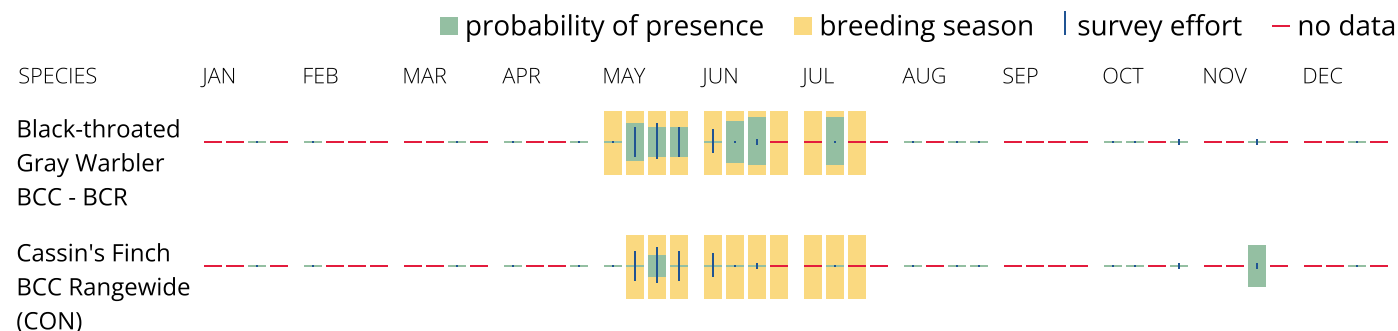
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

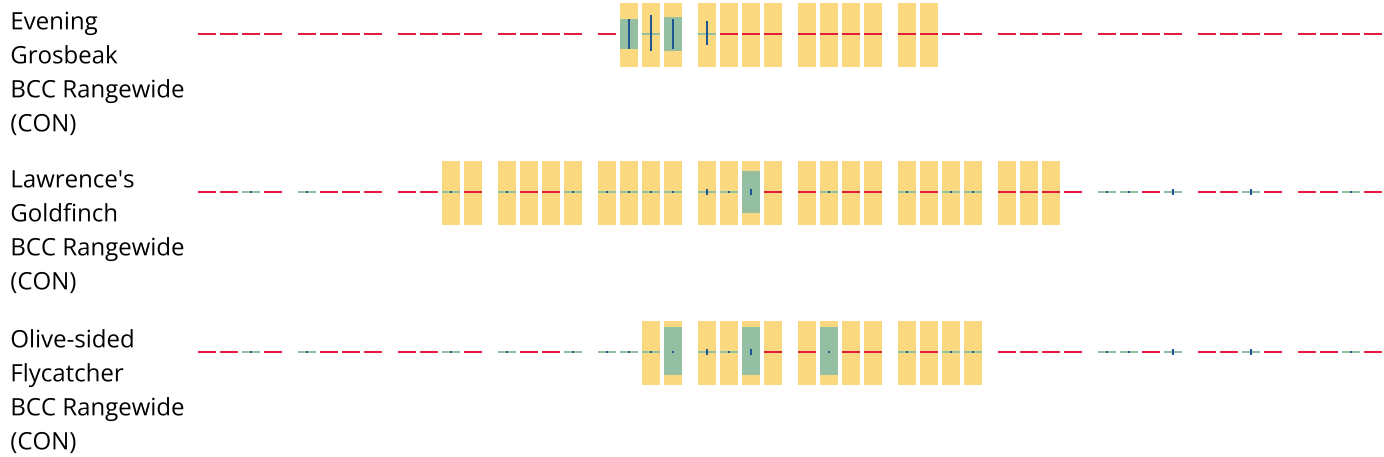
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)

RIVERINE

[R4SBC](#)

[R5UBF](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Quad Name **Camptonville**

Quad Number **39121-D1**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Challenge**

Quad Number **39121-D2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Clipper Mills**

Quad Number **39121-E2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Forbestown**

Quad Number **39121-E3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **French Corral**

Quad Number **39121-C2**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Rackerby**

Quad Number **39121-D3**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Strawberry Valley**

Quad Number **39121-E1**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS >(Camptonville (3912141)> OR >Challenge (3912142)> OR >Pike (3912048)> OR >Goodyears Bar (3912058)> OR >Strawberry Valley (3912151)> OR >Clipper Mills (3912152)> OR >Forbestown (3912153)> OR >Rackerby (3912143)> OR >Oregon House (3912133)> OR >French Corral (3912132)> OR >Nevada City (3912131)> OR >North Bloomfield (3912038))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeeeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Cooper's hawk <i>Accipiter cooperii</i> | ABNKC12040 | None | None | G5 | S4 | WL |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great blue heron <i>Ardea herodias</i> | ABNGA04010 | None | None | G5 | S4 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| inundated bog-clubmoss <i>Lycopodiella inundata</i> | PPLYC03060 | None | None | G5 | S1 | 2B.2 |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| True's mountain jewelflower <i>Streptanthus tortuosus ssp. truei</i> | PDBRA2G108 | None | None | G5T1T2 | S1S2 | 1B.1 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

Record Count: 56



Selected Elements by Element Code

California Department of Fish and Wildlife

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Query Criteria: Quad IS (Strawberry Valley (3912151) OR Camptonville (3912141) OR Clipper Mills (3912152) OR Nevada City (3912131) OR French Corral (3912132) OR Challenge (3912142) OR Oregon House (3912133) OR Loma Rica (3912134) OR Bangor (3912144) OR Forbestown (3912153) OR Brush Creek (3912163) OR Cascade (3912162) OR Rackerby (3912143) OR Oroville Dam (3912154) OR Berry Creek (3912164))

| Element Code | Species | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--------------|--|---------------------|--------------|-------------|------------|--------------------------------|
| AAAAA01085 | <i>Ambystoma macrodactylum sigillatum</i> southern long-toed salamander | None | None | G5T4 | S2 | SSC |
| AAABF02020 | <i>Spea hammondi</i> western spadefoot | None | None | G2G3 | S3S4 | SSC |
| AAABH01022 | <i>Rana draytonii</i> California red-legged frog | Threatened | None | G2G3 | S2S3 | SSC |
| AAABH01052 | <i>Rana boylei</i> pop. 2 foothill yellow-legged frog - Feather River DPS | Proposed Threatened | Threatened | G3T2 | S2 | |
| AAABH01053 | <i>Rana boylei</i> pop. 3 foothill yellow-legged frog - north Sierra DPS | None | Threatened | G3T2 | S2 | |
| AAABH01340 | <i>Rana sierrae</i> Sierra Nevada yellow-legged frog | Endangered | Threatened | G1 | S2 | WL |
| ABNKC01010 | <i>Pandion haliaetus</i> osprey | None | None | G5 | S4 | WL |
| ABNKC10010 | <i>Haliaeetus leucocephalus</i> bald eagle | Delisted | Endangered | G5 | S3 | FP |
| ABNKC12060 | <i>Accipiter gentilis</i> northern goshawk | None | None | G5 | S3 | SSC |
| ABNKC19070 | <i>Buteo swainsoni</i> Swainson's hawk | None | Threatened | G5 | S4 | |
| ABNME03041 | <i>Laterallus jamaicensis coturniculus</i> California black rail | None | Threatened | G3T1 | S2 | FP |
| ABNSB12040 | <i>Strix nebulosa</i> great gray owl | None | Endangered | G5 | S1 | |
| ABNUA01010 | <i>Cypseloides niger</i> black swift | None | None | G4 | S3 | SSC |
| ABPBXB0020 | <i>Agelaius tricolor</i> tricolored blackbird | None | Threatened | G1G2 | S2 | SSC |
| AMACC01020 | <i>Myotis yumanensis</i> Yuma myotis | None | None | G5 | S4 | |
| AMACC01070 | <i>Myotis evotis</i> long-eared myotis | None | None | G5 | S3 | |
| AMACC01090 | <i>Myotis thysanodes</i> fringed myotis | None | None | G4 | S3 | |
| AMACC02010 | <i>Lasionycteris noctivagans</i> silver-haired bat | None | None | G3G4 | S3S4 | |



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



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|--------------|---|----------------|----------------------|-------------|------------|--------------------------------|
| AMACC05032 | <i>Lasiurus cinereus</i> hoary bat | None | None | G3G4 | S4 | |
| AMACC05080 | <i>Lasiurus frantzii</i> western red bat | None | None | G4 | S3 | SSC |
| AMACC08010 | <i>Corynorhinus townsendii</i> Townsend's big-eared bat | None | None | G4 | S2 | SSC |
| AMACC10010 | <i>Antrozous pallidus</i> pallid bat | None | None | G4 | S3 | SSC |
| AMAF01013 | <i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver | None | None | G5T3T4 | S2S3 | SSC |
| AMAFJ01010 | <i>Erethizon dorsatum</i> North American porcupine | None | None | G5 | S3 | |
| AMAJF01014 | <i>Martes caurina sierrae</i> Sierra marten | None | None | G4G5T3 | S3 | |
| AMAJF01020 | <i>Pekania pennanti</i> Fisher | None | None | G5 | S2S3 | SSC |
| ARAAD02030 | <i>Emys marmorata</i> western pond turtle | None | None | G3G4 | S3 | SSC |
| ARACF12100 | <i>Phrynosoma blainvillii</i> coast horned lizard | None | None | G4 | S4 | SSC |
| ARADB36150 | <i>Thamnophis gigas</i> giant gartersnake | Threatened | Threatened | G2 | S2 | |
| CTT51120CA | <i>Darlingtonia Seep</i> Darlingtonia Seep | None | None | G4 | S3.2 | |
| IICOL48011 | <i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle | Threatened | None | G3T3 | S3 | |
| IICOL58010 | <i>Atractelmis wawona</i> Wawona riffle beetle | None | None | G3 | S1S2 | |
| IIHYM24252 | <i>Bombus occidentalis</i> western bumble bee | None | Candidate Endangered | G3 | S1 | |
| IIHYM24260 | <i>Bombus pensylvanicus</i> American bumble bee | None | None | G3G4 | S2 | |
| IMBIV27020 | <i>Margaritifera falcata</i> western pearlshell | None | None | G4G5 | S1S2 | |
| NBMUS1B040 | <i>Buxbaumia viridis</i> green shield-moss | None | None | G3G4 | S2 | 2B.2 |
| NBMUS2W0U0 | <i>Fissidens pauperculus</i> minute pocket moss | None | None | G3? | S2 | 1B.2 |
| NBMUS4Q022 | <i>Mielichhoferia elongata</i> elongate copper moss | None | None | G5 | S3S4 | 4.3 |
| NBMUS5S1D0 | <i>Pohlia flexuosa</i> flexuose threadmoss | None | None | G5 | S1 | 2B.1 |



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



| Element Code | Species | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--------------|--|----------------|--------------|-------------|------------|--------------------------------|
| NLTES34580 | <i>Scytinium siskiyouense</i> Siskiyou jellyskin lichen | None | None | G2G3 | S1 | 1B.1 |
| NLVER00460 | <i>Peltigera gowardii</i> western waterfan lichen | None | None | G4? | S3 | 4.2 |
| PDAP11Z0K0 | <i>Sanicula tracyi</i> Tracy's sanicle | None | None | G4 | S4 | 4.2 |
| PDAST11061 | <i>Balsamorhiza macrolepis</i> big-scale balsamroot | None | None | G2 | S2 | 1B.2 |
| PDAST8H182 | <i>Packera eurycephala</i> var. <i>lewisrosei</i> Lewis Rose's ragwort | None | None | G4T2 | S2 | 1B.2 |
| PDAST8H1V0 | <i>Packera layneae</i> Layne's ragwort | Threatened | Rare | G2 | S2 | 1B.2 |
| PDASTDT0E0 | <i>Pyrrocoma lucida</i> sticky pyrrocoma | None | None | G3 | S3 | 1B.2 |
| PDBRA0K1B1 | <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> dissected-leaved toothwort | None | None | G3G5T2Q | S2 | 1B.2 |
| PDCAR0X0U0 | <i>Stellaria obtusa</i> obtuse starwort | None | None | G5 | S4 | 4.3 |
| PDCAR17010 | <i>Eremogone cliftonii</i> Clifton's eremogone | None | None | G3 | S3 | 1B.3 |
| PDFAB2B1A0 | <i>Lupinus dalesiae</i> Quincy lupine | None | None | G3 | S3 | 4.2 |
| PDONA05053 | <i>Clarkia biloba</i> ssp. <i>brandegeae</i> Brandegee's clarkia | None | None | G4G5T4 | S4 | 4.2 |
| PDONA050J1 | <i>Clarkia gracilis</i> ssp. <i>albicaulis</i> white-stemmed clarkia | None | None | G5T3 | S3 | 1B.2 |
| PDONA050Q2 | <i>Clarkia mildrediae</i> ssp. <i>mildrediae</i> Mildred's clarkia | None | None | G3T3? | S3? | 1B.3 |
| PDONA050S0 | <i>Clarkia mosquinii</i> Mosquin's clarkia | None | None | G2 | S2 | 1B.1 |
| PDPGN086UY | <i>Eriogonum umbellatum</i> var. <i>ahartii</i> Ahart's buckwheat | None | None | G5T3 | S3 | 1B.2 |
| PDPHR01150 | <i>Erythranthe filicifolia</i> fern-leaved monkeyflower | None | None | G2 | S2 | 1B.2 |
| PDPOR04020 | <i>Lewisia cantelovii</i> Cantelow's lewisia | None | None | G3 | S3 | 1B.2 |
| PDSTE03030 | <i>Fremontodendron decumbens</i> Pine Hill flannelbush | Endangered | Rare | G1 | S1 | 1B.2 |
| PDVIO04280 | <i>Viola tomentosa</i> felt-leaved violet | None | None | G3 | S3 | 4.2 |
| PMALI040Q0 | <i>Sagittaria sanfordii</i> Sanford's arrowhead | None | None | G3 | S3 | 1B.2 |



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|--------------|--|----------------|--------------|-------------|------------|--------------------------------|
| PMCYP03M00 | <i>Carex cyrtostachya</i> Sierra arching sedge | None | None | G2 | S2 | 1B.2 |
| PMCYP03M60 | <i>Carex xerophila</i> chaparral sedge | None | None | G2 | S2 | 1B.2 |
| PMCYP0N080 | <i>Rhynchospora capitellata</i> brownish beaked-rush | None | None | G5 | S1 | 2B.2 |
| PMJUN011L1 | <i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush | None | None | G2T1 | S1 | 1B.2 |
| PMLIL022V0 | <i>Allium jepsonii</i> Jepson's onion | None | None | G2 | S2 | 1B.2 |
| PMLIL0V060 | <i>Fritillaria eastwoodiae</i> Butte County fritillary | None | None | G3Q | S3 | 3.2 |
| PMPOA040K0 | <i>Agrostis hendersonii</i> Henderson's bent grass | None | None | G2Q | S2 | 3.2 |
| PMPOA4Z310 | <i>Poa sierrae</i> Sierra blue grass | None | None | G3 | S3 | 1B.3 |
| PPOPH010R0 | <i>Botrychium minganense</i> Mingan moonwort | None | None | G5 | S4 | 4.2 |
| PPOPH010S0 | <i>Botrychium ascendens</i> upswept moonwort | None | None | G4 | S2 | 2B.3 |

Record Count: 70



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Camptonville (3912141) OR Pike (3912048) OR Goodyears Bar (3912058) OR Strawberry Valley (3912151) OR Clipper Mills (3912152) OR Challenge (3912142) OR French Corral (3912132) OR Nevada City (3912131) OR North Bloomfield (3912038))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegge's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Cooper's hawk <i>Accipiter cooperii</i> | ABNKC12040 | None | None | G5 | S4 | WL |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |



Selected Elements by Common Name

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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|--------------|-------------|------------|--------------------------------|
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great blue heron <i>Ardea herodias</i> | ABNGA04010 | None | None | G5 | S4 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| inundated bog-clubmoss <i>Lycopodiella inundata</i> | PPLYC03060 | None | None | G5 | S1 | 2B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |



Selected Elements by Common Name

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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrocoma <i>Pyrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| True's mountain jewelflower <i>Streptanthus tortuosus ssp. truei</i> | PDBRA2G108 | None | None | G5T1T2 | S1S2 | 1B.1 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |

Record Count: 49



Selected Elements by Common Name

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Query Criteria: Quad IS (Clipper Mills (3912152) OR Challenge (3912142) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Forbestown (3912153) OR Oroville Dam (3912154) OR Bangor (3912144) OR Loma Rica (3912134))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i> | PMJUN011L1 | None | None | G2T1 | S1 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| giant gartersnake <i>Thamnophis gigas</i> | ARADB36150 | Threatened | Threatened | G2 | S2 | |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|--------------|-------------|------------|--------------------------------|
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| osprey <i>Pandion haliaetus</i> | ABNKC01010 | None | None | G5 | S4 | WL |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| Swainson's hawk <i>Buteo swainsoni</i> | ABNKC19070 | None | Threatened | G5 | S4 | |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| tricolored blackbird <i>Agelaius tricolor</i> | ABPBXB0020 | None | Threatened | G1G2 | S2 | SSC |
| valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i> | IICOL48011 | Threatened | None | G3T2T3 | S3 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western spadefoot <i>Spea hammondi</i> | AAABF02020 | None | None | G2G3 | S3S4 | SSC |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

Record Count: 40



Selected Elements by Common Name

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Query Criteria: Quad< IS (Strawberry Valley (3912151) OR Clipper Mills (3912152) OR Challenge (3912142) OR Camptonville (3912141) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Nevada City (3912131) OR Forbestown (3912153) OR Goodyears Bar (3912058) OR Oroville Dam (3912154) OR Bangor (3912144) OR Loma Rica (3912134))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i> | PMJUN011L1 | None | None | G2T1 | S1 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |



Selected Elements by Common Name

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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| giant gartersnake <i>Thamnophis gigas</i> | ARADB36150 | Threatened | Threatened | G2 | S2 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| osprey <i>Pandion haliaetus</i> | ABNKC01010 | None | None | G5 | S4 | WL |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Swainson's hawk <i>Buteo swainsoni</i> | ABNKC19070 | None | Threatened | G5 | S4 | |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| tricolored blackbird <i>Agelaius tricolor</i> | ABPBXB0020 | None | Threatened | G1G2 | S2 | SSC |
| valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i> | IICOL48011 | Threatened | None | G3T2T3 | S3 | |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western spadefoot <i>Spea hammondi</i> | AAABF02020 | None | None | G2G3 | S3S4 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

Record Count: 59



Selected Elements by Common Name

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Query Criteria: Quad IS (Challenge (3912142) OR Camptonville (3912141) OR Strawberry Valley (3912151) OR Clipper Mills (3912152) OR Forbestown (3912153) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Nevada City (3912131))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|--------------|-------------|------------|--------------------------------|
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

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Query Criteria: Quad IS (Challenge (3912142) OR Camptonville (3912141) OR Strawberry Valley (3912151) OR Clipper Mills (3912152) OR Forbestown (3912153) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Nevada City (3912131) OR Smartville (3912123) OR Rough And Ready (3912122) OR Grass Valley (3912121))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|--|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeeeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| chinook salmon - Central Valley spring-run ESU <i>Oncorhynchus tshawytscha</i> pop. 11 | AFCHA0205L | Threatened | Threatened | G5T2Q | S2 | |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| dubious pea <i>Lathyrus sulphureus</i> var. <i>argillaceus</i> | PDFAB25101 | None | None | G5T1T2Q | S1S2 | 3 |
| dwarf downingia <i>Downingia pusilla</i> | PDCAM060C0 | None | None | GU | S2 | 2B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| finger rush <i>Juncus digitatus</i> | PMJUN013E0 | None | None | G1 | S1 | 1B.1 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| long-eared owl <i>Asio otus</i> | ABNSB13010 | None | None | G5 | S3? | SSC |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Scadden Flat checkerbloom <i>Sidalcea stipularis</i> | PDMAL110R0 | None | Endangered | G1 | S1 | 1B.1 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| Stebbins' morning-glory <i>Calystegia stebbinsii</i> | PDCON040H0 | Endangered | Endangered | G1 | S1 | 1B.1 |
| steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus pop. 11</i> | AFCHA0209K | Threatened | None | G5T2Q | S2 | |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| yellow-breasted chat <i>Icteria virens</i> | ABPBX24010 | None | None | G5 | S3 | SSC |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

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Query Criteria: Quad IS (Strawberry Valley (3912151) OR Goodyears Bar (3912058) OR La Porte (3912068) OR American House (3912161) OR Cascade (3912162) OR Clipper Mills (3912152) OR Challenge (3912142) OR Camptonville (3912141) OR Pike (3912048))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Bolander's bruchia <i>Bruchia bolanderi</i> | NBMUS13010 | None | None | G3 | S3 | 4.2 |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| Caribou coffeeberry <i>Frangula purshiana</i> ssp. <i>ultramafica</i> | PDRHA0H061 | None | None | G4T2T3 | S2S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| Clifton's eremogone <i>Eremogone cliftonii</i> | PDCAR17010 | None | None | G3 | S3 | 1B.3 |
| Constance's rockcress <i>Boechera constancei</i> | PDBRA06090 | None | None | G2 | S2 | 1B.1 |
| cylindrical trichodon <i>Trichodon cylindricus</i> | NBMUS7N020 | None | None | G4G5 | S2 | 2B.2 |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| inundated bog-clubmoss <i>Lycopodiella inundata</i> | PPLYC03060 | None | None | G5 | S1 | 2B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| long-legged myotis <i>Myotis volans</i> | AMACC01110 | None | None | G4G5 | S3 | |
| Mildred's clarkia <i>Clarkia mildrediae</i> ssp. <i>mildrediae</i> | PDONA050Q2 | None | None | G3T3? | S3? | 1B.3 |
| Mingan moonwort <i>Botrychium minganense</i> | PPOPH010R0 | None | None | G5 | S4 | 4.2 |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| True's mountain jewelflower <i>Streptanthus tortuosus ssp. truei</i> | PDBRA2G108 | None | None | G5T1T2 | S1S2 | 1B.1 |
| upswept moonwort <i>Botrychium ascendens</i> | PPOPH010S0 | None | None | G4 | S2 | 2B.3 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western goblin <i>Botrychium montanum</i> | PPOPH010K0 | None | None | G3G4 | S2 | 2B.1 |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |

Record Count: 54



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Query Criteria: Quad (Strawberry Valley (3912151) OR American House (3912161) OR Cascade (3912162) OR Clipper Mills (3912152) OR Challenge (3912142) OR Camptonville (3912141) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Nevada City (3912131) OR Brush Creek (3912163) OR Forbestown (3912153))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| big-scale balsamroot <i>Balsamorhiza macrolepis</i> | PDAST11061 | None | None | G2 | S2 | 1B.2 |
| black swift <i>Cypseloides niger</i> | ABNUA01010 | None | None | G4 | S2 | SSC |
| Bolander's bruchia <i>Bruchia bolanderi</i> | NBMUS13010 | None | None | G3 | S3 | 4.2 |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| Clifton's eremogone <i>Eremogone cliftonii</i> | PDCAR17010 | None | None | G3 | S3 | 1B.3 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |



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| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| Henderson's bent grass <i>Agrostis hendersonii</i> | PMPOA040K0 | None | None | G2Q | S2 | 3.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| long-legged myotis <i>Myotis volans</i> | AMACC01110 | None | None | G4G5 | S3 | |
| Mildred's clarkia <i>Clarkia mildrediae</i> ssp. <i>mildrediae</i> | PDONA050Q2 | None | None | G3T3? | S3? | 1B.3 |
| Mingan moonwort <i>Botrychium minganense</i> | PPOPH010R0 | None | None | G5 | S4 | 4.2 |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| upswept moonwort <i>Botrychium ascendens</i> | PPOPH010S0 | None | None | G4 | S2 | 2B.3 |
| Wawona riffle beetle <i>Atractelmis wawona</i> | IICOL58010 | None | None | G3 | S1S2 | |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

Record Count: 62



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Strawberry Valley (3912151) OR Clipper Mills (3912152) OR Challenge (3912142) OR Camptonville (3912141) OR Rackerby (3912143) OR Oregon House (3912133) OR French Corral (3912132) OR Nevada City (3912131) OR Forbestown (3912153) OR Pike (3912048) OR Goodyears Bar (3912058) OR North Bloomfield (3912038))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Ahart's buckwheat <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | PDPGN086UY | None | None | G5T3 | S3 | 1B.2 |
| American bumble bee <i>Bombus pensylvanicus</i> | IIHYM24260 | None | None | G3G4 | S2 | |
| bald eagle <i>Haliaeetus leucocephalus</i> | ABNKC10010 | Delisted | Endangered | G5 | S3 | FP |
| Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | PDONA05053 | None | None | G4G5T4 | S4 | 4.2 |
| brownish beaked-rush <i>Rhynchospora capitellata</i> | PMCYP0N080 | None | None | G5 | S1 | 2B.2 |
| Butte County fritillary <i>Fritillaria eastwoodiae</i> | PMLIL0V060 | None | None | G3Q | S3 | 3.2 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G3T1 | S2 | FP |
| California red-legged frog <i>Rana draytonii</i> | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| Cantelow's lewisia <i>Lewisia cantelovii</i> | PDPOR04020 | None | None | G3 | S3 | 1B.2 |
| chaparral sedge <i>Carex xerophila</i> | PMCYP03M60 | None | None | G2 | S2 | 1B.2 |
| coast horned lizard <i>Phrynosoma blainvillii</i> | ARACF12100 | None | None | G4 | S4 | SSC |
| Cooper's hawk <i>Accipiter cooperii</i> | ABNKC12040 | None | None | G5 | S4 | WL |
| Darlingtonia Seep <i>Darlingtonia Seep</i> | CTT51120CA | None | None | G4 | S3.2 | |
| dissected-leaved toothwort <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | PDBRA0K1B1 | None | None | G3G5T2Q | S2 | 1B.2 |
| elongate copper moss <i>Mielichhoferia elongata</i> | NBMUS4Q022 | None | None | G5 | S3S4 | 4.3 |
| felt-leaved violet <i>Viola tomentosa</i> | PDVIO04280 | None | None | G3 | S3 | 4.2 |
| fern-leaved monkeyflower <i>Erythranthe filicifolia</i> | PDPHR01150 | None | None | G2 | S2 | 1B.2 |
| Fisher <i>Pekania pennanti</i> | AMAJF01020 | None | None | G5 | S2S3 | SSC |



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|--------------|-------------|------------|--------------------------------|
| flexuose threadmoss <i>Pohlia flexuosa</i> | NBMUS5S1D0 | None | None | G5 | S1 | 2B.1 |
| foothill yellow-legged frog - Feather River DPS <i>Rana boylei</i> pop. 2 | AAABH01052 | Proposed Threatened | Threatened | G3T2 | S2 | |
| foothill yellow-legged frog - north Sierra DPS <i>Rana boylei</i> pop. 3 | AAABH01053 | None | Threatened | G3T2 | S2 | |
| fringed myotis <i>Myotis thysanodes</i> | AMACC01090 | None | None | G4 | S3 | |
| great blue heron <i>Ardea herodias</i> | ABNGA04010 | None | None | G5 | S4 | |
| great gray owl <i>Strix nebulosa</i> | ABNSB12040 | None | Endangered | G5 | S1 | |
| green shield-moss <i>Buxbaumia viridis</i> | NBMUS1B040 | None | None | G3G4 | S2 | 2B.2 |
| hoary bat <i>Lasiurus cinereus</i> | AMACC05032 | None | None | G3G4 | S4 | |
| inundated bog-clubmoss <i>Lycopodiella inundata</i> | PPLYC03060 | None | None | G5 | S1 | 2B.2 |
| Layne's ragwort <i>Packera layneae</i> | PDAST8H1V0 | Threatened | Rare | G2 | S2 | 1B.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| minute pocket moss <i>Fissidens pauperculus</i> | NBMUS2W0U0 | None | None | G3? | S2 | 1B.2 |
| Mosquin's clarkia <i>Clarkia mosquinii</i> | PDONA050S0 | None | None | G2 | S2 | 1B.1 |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |
| northern goshawk <i>Accipiter gentilis</i> | ABNKC12060 | None | None | G5 | S3 | SSC |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G4 | S3 | SSC |
| Pine Hill flannelbush <i>Fremontodendron decumbens</i> | PDSTE03030 | Endangered | Rare | G1 | S1 | 1B.2 |
| Plumas rayless daisy <i>Erigeron lassenianus</i> var. <i>deficiens</i> | PDAST3M262 | None | None | G3G4T2T3 | S2S3 | 1B.3 |
| Quincy lupine <i>Lupinus dalesiae</i> | PDFAB2B1A0 | None | None | G3 | S3 | 4.2 |
| Sierra arching sedge <i>Carex cyrtostachya</i> | PMCYP03M00 | None | None | G2 | S2 | 1B.2 |
| Sierra blue grass <i>Poa sierrae</i> | PMPOA4Z310 | None | None | G3 | S3 | 1B.3 |



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|----------------------|-------------|------------|--------------------------------|
| Sierra marten <i>Martes caurina sierrae</i> | AMAJF01014 | None | None | G4G5T3 | S3 | |
| Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i> | AMAF01013 | None | None | G5T3T4 | S2S3 | SSC |
| Sierra Nevada yellow-legged frog <i>Rana sierrae</i> | AAABH01340 | Endangered | Threatened | G1 | S1 | WL |
| silver-haired bat <i>Lasionycteris noctivagans</i> | AMACC02010 | None | None | G3G4 | S3S4 | |
| Siskiyou jellyskin lichen <i>Scytinium siskiyouense</i> | NLTES34580 | None | None | G2G3 | S1 | 1B.1 |
| southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i> | AAAAA01085 | None | None | G5T4 | S3 | SSC |
| sticky pyrrocoma <i>Pyrrocoma lucida</i> | PDASTDT0E0 | None | None | G3 | S3 | 1B.2 |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G4 | S2 | SSC |
| Tracy's sanicle <i>Sanicula tracyi</i> | PDAP11Z0K0 | None | None | G4 | S4 | 4.2 |
| True's mountain jewelflower <i>Streptanthus tortuosus ssp. truei</i> | PDBRA2G108 | None | None | G5T1T2 | S1S2 | 1B.1 |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| western pearlshell <i>Margaritifera falcata</i> | IMBIV27020 | None | None | G4G5 | S1S2 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus frantzii</i> | AMACC05080 | None | None | G4 | S3 | SSC |
| western waterfan lichen <i>Peltigera gowardii</i> | NLVER00460 | None | None | G4? | S3 | 4.2 |
| white-stemmed clarkia <i>Clarkia gracilis ssp. albicaulis</i> | PDONA050J1 | None | None | G5T3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |

Record Count: 56

CNPS Rare Plant Inventory



Search Results

47 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912058:3912048:3912151:3912141:3912152:3912038:3912131:3912132:3912142:3912153:3912143:3912133]

| CA RARE | | | | | | | | | | | | |
|--|----------------------------|---------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <u>Allium sanbornii</u> <u>var. sanbornii</u> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <u>Arctostaphylos mewukka</u> ssp. <u>truei</u> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <u>Brodiaea sierrae</u> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <u>Bulbostylis capillaris</u> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <u>Buxbaumia viridis</u> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <u>Cardamine pachystigma</u> var. <u>dissectifolia</u> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <u>Carex cyrtostachya</u> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <u>Carex xerophila</u> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <u>Clarkia biloba</u> ssp. <u>brandegeae</u> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|---------------------------|----------------|--|--------------|------|------|----------|------|------|-----|------------|---|
| <i>Clarkia gracilis</i> ssp. <i>albicaulis</i> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <i>Clarkia mildrediae</i> ssp. <i>lutescens</i> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mosquinii</i> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <i>Clarkia virgata</i> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <i>Cypripedium californicum</i> | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | 1980-01-01 |  © 2012 Barry Rice |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Erigeron lassenianus</i> var. <i>deficiens</i> | Plumas rayless daisy | Asteraceae | perennial herb | Jun-Sep | None | None | G3G4T2T3 | S2S3 | 1B.3 | Yes | 2012-09-28 | No Photo Available |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Fremontodendron decumbens</i> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | | |
|--|----------------------------|--------------------|----------------------------------|--------------|------|------|---------|------|------|-----|--|------------|--|
| <u><i>Fritillaria eastwoodiae</i></u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <u><i>Lathyrus sulphureus</i></u> var. <u><i>argillaceus</i></u> | dubious pea | Fabaceae | perennial herb | Apr-May | None | None | G5T1T2Q | S1S2 | 3 | Yes | | 1994-01-01 | No Photo Available |
| <u><i>Lewisia cantelovii</i></u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | | 1974-01-01 |  ©2005 Steve Matson |
| <u><i>Lilium humboldtii</i></u> ssp. <u><i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Lycopodiella inundata</i></u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Mielichhoferia elongata</i></u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | | 2001-01-01 |  © 2012 John Game |
| <u><i>Mielichhoferia shevockii</i></u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | | 2001-01-01 | No Photo Available |
| <u><i>Packera layneae</i></u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Peltigera gowardii</i></u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | | 2014-03-01 |  © 2021 Scot Loring |
| <u><i>Perideridia bacigalupii</i></u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Piperia colemanii</i></u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | | 2001-01-01 |  © 2005 Dean Wm. Taylor |

| | | | | | | | | | | | | |
|--|-----------------------------|--------------------|----------------------------|------------------|------|------|--------|------|------|-----|------------|--|
| <u>Plagiobothrys glyptocarpus</u> var. <u>modestus</u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <u>Poa sierrae</u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <u>Pyrocoma lucida</u> | sticky pyrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |
| <u>Rhynchospora capitellata</u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u>Sanicula tracyi</u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u>Scytinium siskiyouense</u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u>Sidalcea gigantea</u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u>Streptanthus longisiliquus</u> | long-fruit jewelflower | Brassicaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 4.3 | Yes | 2007-08-31 |  ©2008 Sierra Pacific Industries |
| <u>Streptanthus tortuosus</u> ssp. <u>truei</u> | True's mountain jewelflower | Brassicaceae | perennial herb | Jun-Jul(Sep) | None | None | G5T1T2 | S1S2 | 1B.1 | Yes | 2016-07-20 |  © 2021 Robert E. Preston, Ph.D |

| | | | | | | | | | | | | |
|--|--------------------------------------|-----------|---------------------------------|------------------|------|------|-----|------|-----|-----|----------------|-----------------------|
| <u>Vaccinium</u> <u>coccineum</u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974- 01-01 | No Photo Available |
| <u>Viola tomentosa</u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May- Oct | None | None | G3 | S3 | 4.2 | Yes | 1974- 01-01 | No Photo Available |

Showing 1 to 47 of 47 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 3 May 2023].

Search Results

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
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[3912153:3912143:3912142:3912154:3912164:3912163:3912162:3912152:3912151:3912141:3912131:3912132:3912133:3912134:3912144]






| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | CA RARE | | | DATE ADDED | PHOTO |
|---|------------------------|-----------------|----------------------------|--------------------|-------------|---------------|----------------|---------------|---------------|---------------|---------------|--|
| | | | | | | | | STATE RANK | PLANT RANK | CA ENDEMIC | | |
| <i>Agrostis hendersonii</i> | Henderson's bent grass | Poaceae | annual herb | Apr-Jun | None | None | G2Q | S2 | 3.2 | | 1974-01-01 |  ©2005 Steve Matson |
| <i>Allium jepsonii</i> | Jepson's onion | Alliaceae | perennial bulbiferous herb | Apr-Aug | None | None | G2 | S2 | 1B.2 | Yes | 1994-01-01 |  © 2019 Steven Perry |
| <i>Allium sanbornii</i> var. <i>sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Astragalus pauperculus</i> | depauperate milk-vetch | Fabaceae | annual herb | Mar-Jun | None | None | G4 | S4 | 4.3 | Yes | 1974-01-01 |  ©2012 Tim Kellison |
| <i>Azolla microphylla</i> | Mexican mosquito fern | Azollaceae | annual/perennial herb | Aug | None | None | G5 | S4 | 4.2 | | 1994-01-01 | No Photo Available |
| <i>Balsamorhiza macrolepis</i> | big-scale balsamroot | Asteraceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 1974-01-01 |  ©1998 Dean Wm. Taylor |
| <i>Botrychium ascendens</i> | upswept moonwort | Ophioglossaceae | perennial rhizomatous herb | (Jun)Jul-Aug | None | None | G4 | S2 | 2B.3 | | 1994-01-01 |  © 2005 Steve Matson |

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|---|----------------------------|-----------------|----------------------------|--------------|------|------|---------|-----|------|-----|------------|---|
| <u><i>Botrychium minganense</i></u> | Mingan moonwort | Ophioglossaceae | perennial rhizomatous herb | Jul-Sep(Oct) | None | None | G5 | S4 | 4.2 | | 1994-01-01 |  © 2011 Aaron E. Sims |
| <u><i>Brodiaea sierrae</i></u> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <u><i>Bulbostylis capillaris</i></u> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <u><i>Buxbaumia viridis</i></u> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <u><i>Calycadenia oppositifolia</i></u> | Butte County calycadenia | Asteraceae | annual herb | Apr-Jul | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Cardamine pachystigma</i> var. <i>dissectifolia</i></u> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <u><i>Carex cyrtostachya</i></u> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <u><i>Carex xerophila</i></u> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 |  © 2023 Steven Perry |
| <u><i>Clarkia biloba</i> ssp. <i>brandegeae</i></u> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Clarkia gracilis</i> ssp. <i>albicaulis</i></u> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <u><i>Clarkia mildrediae</i> ssp. <i>lutescens</i></u> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Clarkia mildrediae</i> ssp. <i>mildrediae</i></u> | Mildred's clarkia | Onagraceae | annual herb | May-Aug | None | None | G3T3? | S3? | 1B.3 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|-----------------------------|-----------------|--|--------------|------|------|------|------|------|-----|------------|---|
| <u><i>Clarkia mosquinii</i></u> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 |  © 2002 Dean Wm Taylor |
| <u><i>Clarkia virgata</i></u> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Claytonia parviflora</i> ssp. <i>grandiflora</i></u> | streambank spring beauty | Montiaceae | annual herb | Feb-May | None | None | G5T3 | S3 | 4.2 | Yes | 2006-09-29 | No Photo Available |
| <u><i>Cypripedium californicum</i></u> | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | 1980-01-01 |  © 2012 Barry Rice |
| <u><i>Cypripedium fasciculatum</i></u> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <u><i>Darlingtonia californica</i></u> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Engellaria obtusa</i></u> | obtuse starwort | Caryophyllaceae | perennial rhizomatous herb | May-Sep(Oct) | None | None | G5 | S4 | 4.3 | | 1988-01-01 |  ©2014 Kirsten Bovee |
| <u><i>Eremogone cliftonii</i></u> | Clifton's eremogone | Caryophyllaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 1B.3 | Yes | 2008-08-04 | No Photo Available |
| <u><i>Erigeron petrophilus</i> var. <i>sierrensis</i></u> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <u><i>Eriogonum umbellatum</i> var. <i>ahartii</i></u> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <u><i>Erythranthe filicifolia</i></u> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <u><i>Erythranthe glaucescens</i></u> | shield-bracted monkeyflower | Phrymaceae | annual herb | Feb-Aug(Sep) | None | None | G3G4 | S3S4 | 4.3 | Yes | 1974-01-01 |  Neal Kramer 2020 |

| | | | | | | | | | | | | |
|--|-----------------------------|-----------------|----------------------------|--------------|------|------|------|-----|------|-----|------------|--|
| <u><i>Erythranthe inconspicua</i></u> | small-flowered monkeyflower | Phrymaceae | annual herb | May-Jun | None | None | G4 | S4 | 4.3 | Yes | 1974-01-01 |  © 2017 Debra L. Cook |
| <u><i>Fissidens pauperculus</i></u> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <u><i>Fremontodendron decumbens</i></u> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Fritillaria eastwoodiae</i></u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <u><i>Hartmaniella sierrae</i></u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <u><i>Hesperevax caulescens</i></u> | hogwallow starfish | Asteraceae | annual herb | Mar-Jun | None | None | G3 | S3 | 4.2 | Yes | 2001-01-01 |  © 2017 John Doyen |
| <u><i>Juncus leiospermus</i> var. <i>ahartii</i></u> | Ahart's dwarf rush | Juncaceae | annual herb | Mar-May | None | None | G2T1 | S1 | 1B.2 | Yes | 1984-01-01 |  © 2004 Carol W. Witham |
| <u><i>Leptosiphon aureus</i></u> | bristly leptosiphon | Polemoniaceae | annual herb | Apr-Jul | None | None | G4? | S4? | 4.2 | Yes | 1994-01-01 |  © 2007 Len Blumin |
| <u><i>Lewisia cantelovii</i></u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1974-01-01 |  ©2005 Steve Matson |
| <u><i>Lilium humboldtii</i> ssp. <i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|---|---------------------------|--------------------|----------------------------|------------------|------|------|-------|------|------|-----|------------|--|
| <u><i>Lycopodiella inundata</i></u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Microseris sylvatica</i></u> | sylvan microseris | Asteraceae | perennial herb | Mar-Jun | None | None | G4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Mielichhoferia elongata</i></u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u><i>Mielichhoferia shevockii</i></u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Packera eurycephala</i> var. <i>lewisroei</i></u> | Lewis Rose's ragwort | Asteraceae | perennial herb | Mar-Jul(Aug-Sep) | None | None | G4T2 | S2 | 1B.2 | Yes | 1984-01-01 | No Photo Available |
| <u><i>Packera layneae</i></u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Peltigera gowardii</i></u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014-03-01 |  © 2021 Scot Loring |
| <u><i>Perideridia bacigalupii</i></u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Piperia colemanii</i></u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | 2001-01-01 |  © 2005 Dean Wm. Taylor |
| <u><i>Plagiobothrys glyptocarpus</i> var. <i>modestus</i></u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <u><i>Poa sierrae</i></u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u><i>Pohlia flexuosa</i></u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u><i>Pyrrocoma lucida</i></u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|--------------------------------|---------------|---------------------------------------|------------------|------|------|------|------|------|-----|------------|---|
| <u><i>Rhynchospora capitellata</i></u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u><i>Sagittaria sanfordii</i></u> | Sanford's arrowhead | Alismataceae | perennial rhizomatous herb (emergent) | May-Oct(Nov) | None | None | G3 | S3 | 1B.2 | Yes | 1984-01-01 |  ©2013 Debra L. Cook |
| <u><i>Sanicula tracyi</i></u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u><i>Scytinium siskiyouense</i></u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u><i>Sidalcea gigantea</i></u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u><i>Streptanthus longisiliquus</i></u> | long-fruit jewelflower | Brassicaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 4.3 | Yes | 2007-08-31 |  ©2008 Sierra Pacific Industries |
| <u><i>Vaccinium coccineum</i></u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |
| <u><i>Viola tomentosa</i></u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May-Oct | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

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Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 15 August 2023].

CNPS Rare Plant Inventory





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42 matches found. Click on scientific name for details

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| CA RARE | | | | | | | | | | | | |
|--|----------------------------|---------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Allium sanbornii</i> <i>var. sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Brodiaea sierrae</i> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <i>Buxbaumia viridis</i> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <i>Carex cyrtostachya</i> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <i>Carex xerophila</i> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mildrediae</i> ssp. <i>lutescens</i> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mosquinii</i> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|---------------------------|----------------|--|--------------|------|------|----------|------|------|-----|------------|---|
| <i>Clarkia virgata</i> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <i>Cypripedium californicum</i> | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | 1980-01-01 |  © 2012 Barry Rice |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Erigeron lassenianus</i> var. <i>deficiens</i> | Plumas rayless daisy | Asteraceae | perennial herb | Jun-Sep | None | None | G3G4T2T3 | S2S3 | 1B.3 | Yes | 2012-09-28 | No Photo Available |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Fremontodendron decumbens</i> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <i>Fritillaria eastwoodiae</i> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <i>Lathyrus sulphureus</i> var. <i>argillaceus</i> | dubious pea | Fabaceae | perennial herb | Apr-May | None | None | G5T1T2Q | S1S2 | 3 | Yes | 1994-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|-------------------------|--------------------|----------------------------|--------------|------|------|------|------|------|-----|------------|---|
| <u>Lewisia cantelovii</u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1974-01-01 |  ©2005 Steve Matson |
| <u>Lilium humboldtii</u> <u>ssp. humboldtii</u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u>Lupinus dalesiae</u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Lycopodiella inundata</u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u>Mielichhoferia elongata</u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u>Mielichhoferia shevockii</u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Peltigera gowardii</u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014-03-01 |  © 2021 Scot Loring |
| <u>Perideridia bacigalupii</u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Piperia colemanii</u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | 2001-01-01 |  © 2005 Dean Wm. Taylor |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <u>Pyrrocoma lucida</u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |

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|---|--------------------------------------|---------------|----------------------------------|------------------|------|------|--------|------|------|-----|------------|---|
| <u>Rhynchospora capitellata</u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u>Sanicula tracyi</u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u>Scytinium siskiyouense</u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u>Sidalcea gigantea</u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u>Streptanthus longisiliquus</u> | long-fruit jewelflower | Brassicaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 4.3 | Yes | 2007-08-31 |  ©2008 Sierra Pacific Industries |
| <u>Streptanthus tortuosus</u> ssp. <u>truei</u> | True's mountain jewelflower | Brassicaceae | perennial herb | Jun-Jul(Sep) | None | None | G5T1T2 | S1S2 | 1B.1 | Yes | 2016-07-20 |  © 2021 Robert E. Preston, Ph.D |
| <u>Vaccinium coccineum</u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |
| <u>Viola tomentosa</u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May-Oct | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

Showing 1 to 42 of 42 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 4 May 2023].

CNPS Rare Plant Inventory



Search Results



36 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3912153:3912152:3912154:3912132:3912142:3912134:3912143:3912133:3912144]

| CA RARE | | | | | | | | | | | | |
|--|----------------------------|--------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Allium sanbornii</i> <i>var. sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Astragalus pauperculus</i> | depauperate milk-vetch | Fabaceae | annual herb | Mar-Jun | None | None | G4 | S4 | 4.3 | Yes | 1974-01-01 |  ©2012 Tim Kellison |
| <i>Azolla microphylla</i> | Mexican mosquito fern | Azollaceae | annual/perennial herb | Aug | None | None | G5 | S4 | 4.2 | | 1994-01-01 | No Photo Available |
| <i>Brodiaea sierrae</i> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <i>Bulbostylis capillaris</i> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <i>Calycadenia oppositifolia</i> | Butte County calycadenia | Asteraceae | annual herb | Apr-Jul | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <i>Carex cyrtostachya</i> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |

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|---|--------------------------------|----------------|----------------------------------|--------------|------|------|--------|------|------|-----|------------|---|
| <i>Carex xerophila</i> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <i>Clarkia biloba ssp. brandegeae</i> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia gracilis ssp. albicaulis</i> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <i>Clarkia mildrediae ssp. lutescens</i> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mosquinii</i> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Erigeron petrophilus var. sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum var. ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Erythranthe glaucescens</i> | shield-bracted monkeyflower | Phrymaceae | annual herb | Feb-Aug(Sep) | None | None | G3G4 | S3S4 | 4.3 | Yes | 1974-01-01 |  Neal Kramer 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Fremontodendron decumbens</i> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <i>Fritillaria eastwoodiae</i> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |

| | | | | | | | | | | | | |
|---|---------------------------|---------------|----------------------------|--------------|------|------|-------|-----|------|-----|------------|--|
| <u><i>Hesperervax caulescens</i></u> | hogwallow starfish | Asteraceae | annual herb | Mar-Jun | None | None | G3 | S3 | 4.2 | Yes | 2001-01-01 |  © 2017 John Doyen |
| <u><i>Juncus leiospermus</i> var. <i>ahartii</i></u> | Ahart's dwarf rush | Juncaceae | annual herb | Mar-May | None | None | G2T1 | S1 | 1B.2 | Yes | 1984-01-01 |  © 2004 Carol W. Witham |
| <u><i>Leptosiphon aureus</i></u> | bristly leptosiphon | Polemoniaceae | annual herb | Apr-Jul | None | None | G4? | S4? | 4.2 | Yes | 1994-01-01 |  © 2007 Len Blumin |
| <u><i>Lilium humboldtii</i> ssp. <i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Microseris sylvatica</i></u> | sylvan microseris | Asteraceae | perennial herb | Mar-Jun | None | None | G4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Packera layneae</i></u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Perideridia bacigalupii</i></u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Plagiobothrys glyptocarpus</i> var. <i>modestus</i></u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <u><i>Poa sierrae</i></u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u><i>Rhynchospora capitellata</i></u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |

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|--------------------------------------|------------------------------|---------------|----------------------------------|------------------|------|------|------|----|------|-----|------------|---|
| <u><i>Sanicula tracyi</i></u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u><i>Scytinium siskiyouense</i></u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u><i>Sidalcea gigantea</i></u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |

Showing 1 to 36 of 36 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 3 May 2023].

CNPS Rare Plant Inventory




Search Results

48 matches found. Click on scientific name for details


Search Criteria: Quad is one of [3912143:3912142:3912141:3912151:3912152:3912153:3912154:3912144:3912134:3912133:3912132:3912131]

| CA RARE | | | | | | | | | | | | |
|--|---------------------------|---------------|-------------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Allium sanbornii</i> <i>var. sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Astragalus pauperculus</i> | depauperate milk-vetch | Fabaceae | annual herb | Mar-Jun | None | None | G4 | S4 | 4.3 | Yes | 1974-01-01 |  ©2012 Tim Kellison |
| <i>Azolla microphylla</i> | Mexican mosquito fern | Azollaceae | annual/perennial herb | Aug | None | None | G5 | S4 | 4.2 | | 1994-01-01 | No Photo Available |
| <i>Brodiaea sierrae</i> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <i>Bulbostylis capillaris</i> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <i>Buxbaumia viridis</i> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <i>Calycadenia oppositifolia</i> | Butte County calycadenia | Asteraceae | annual herb | Apr-Jul | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|-----------------------------|----------------|--|--------------|------|------|---------|------|------|-----|------------|---|
| <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <i>Carex cyrtostachya</i> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <i>Carex xerophila</i> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <i>Clarkia biloba</i> ssp. <i>brandegeae</i> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia gracilis</i> ssp. <i>albicaulis</i> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <i>Clarkia mildrediae</i> ssp. <i>lutescens</i> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mosquinii</i> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <i>Clarkia virgata</i> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Erythranthe glaucescens</i> | shield-bracted monkeyflower | Phrymaceae | annual herb | Feb-Aug(Sep) | None | None | G3G4 | S3S4 | 4.3 | Yes | 1974-01-01 |  Neal Kramer 2020 |

| | | | | | | | | | | | | |
|--|-------------------------|----------------|----------------------------|--------------|------|------|------|-----|------|-----|------------|--|
| <u><i>Fissidens pauperculus</i></u> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <u><i>Fremontodendron decumbens</i></u> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Fritillaria eastwoodiae</i></u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <u><i>Hesperevax caulescens</i></u> | hogwallow starfish | Asteraceae | annual herb | Mar-Jun | None | None | G3 | S3 | 4.2 | Yes | 2001-01-01 |  © 2017 John Doyen |
| <u><i>Juncus leiospermus</i> var. <i>ahartii</i></u> | Ahart's dwarf rush | Juncaceae | annual herb | Mar-May | None | None | G2T1 | S1 | 1B.2 | Yes | 1984-01-01 |  © 2004 Carol W. Witham |
| <u><i>Leptosiphon aureus</i></u> | bristly leptosiphon | Polemoniaceae | annual herb | Apr-Jul | None | None | G4? | S4? | 4.2 | Yes | 1994-01-01 |  © 2007 Len Blumin |
| <u><i>Lewisia cantelovii</i></u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1974-01-01 |  ©2005 Steve Matson |
| <u><i>Lilium humboldtii</i> ssp. <i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Lycopodiella inundata</i></u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Microseris sylvatica</i></u> | sylvan microseris | Asteraceae | perennial herb | Mar-Jun | None | None | G4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|---------------------------|--------------------|----------------------------|---------|------|------|-------|------|------|-----|------------|--|
| <u>Mielichhoferia elongata</u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u>Mielichhoferia shevockii</u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Packera layneae</u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Peltigera gowardii</u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014-03-01 |  © 2021 Scot Loring |
| <u>Perideridia bacigalupii</u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Plagiobothrys glyptocarpus</u> var. <u>modestus</u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <u>Poa sierrae</u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <u>Pyrrocoma lucida</u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |
| <u>Rhynchospora capitellata</u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u>Sanicula tracyi</u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u>Scytinium siskiyouense</u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |

| | | | | | | | | | | | | |
|-----------------------------------|--------------------------------------|-----------|----------------------------------|------------------|------|------|-----|------|-----|-----|------------|--|
| <u><i>Sidalcea gigantea</i></u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u><i>Vaccinium coccineum</i></u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |

Showing 1 to 48 of 48 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 3 May 2023].

CNPS Rare Plant Inventory



Search Results




40 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912142:3912152:3912151:3912141:3912131:3912132:3912133:3912143:3912153]

| CA RARE | | | | | | | | | | | | |
|--|----------------------------|---------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <u>Allium sanbornii</u> <u>var. sanbornii</u> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <u>Arctostaphylos mewukka</u> ssp. <u>truei</u> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <u>Brodiaea sierrae</u> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <u>Bulbostylis capillaris</u> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <u>Buxbaumia viridis</u> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <u>Cardamine pachystigma</u> var. <u>dissectifolia</u> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <u>Carex cyrtostachya</u> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <u>Carex xerophila</u> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <u>Clarkia biloba</u> ssp. <u>brandegeae</u> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|--------------------------|----------------|--|--------------|------|------|------|----|------|-----|------------|--|
| <u>Clarkia gracilis</u> <u>ssp. albicaulis</u> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <u>Clarkia mildrediae</u> <u>ssp. lutescens</u> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Clarkia mosquinii</u> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <u>Clarkia virgata</u> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <u>Cypripedium fasciculatum</u> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <u>Darlingtonia californica</u> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u>Erigeron petrophilus</u> <u>var. sierrensis</u> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <u>Eriogonum umbellatum</u> <u>var. ahartii</u> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <u>Erythranthe filicifolia</u> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <u>Fissidens pauperculus</u> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <u>Fremontodendron decumbens</u> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Fritillaria eastwoodiae</u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |

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|---|---------------------------|--------------------|----------------------------|--------------|------|------|-------|------|------|-----|------------|---|
| <u>Lewisia cantelovii</u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1974-01-01 |  ©2005 Steve Matson |
| <u>Lilium humboldtii ssp. humboldtii</u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u>Lupinus dalesiae</u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Lycopodiella inundata</u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u>Mielichhoferia elongata</u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u>Mielichhoferia shevockii</u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Packera layneae</u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Peltigera gowardii</u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014-03-01 |  © 2021 Scot Loring |
| <u>Perideridia bacigalupii</u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Plagiobothrys glyptocarpus var. modestus</u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <u>Poa sierrae</u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|--------------------------------------|---------------|----------------------------------|------------------|------|------|------|------|------|-----|------------|---|
| <u><i>Pyrrocoma lucida</i></u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |
| <u><i>Rhynchospora capitellata</i></u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u><i>Sanicula tracyi</i></u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u><i>Scytinium siskiyouense</i></u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u><i>Sidalcea gigantea</i></u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u><i>Vaccinium coccineum</i></u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |

Showing 1 to 40 of 40 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 4 May 2023].







CNPS Rare Plant Inventory.











Search Results

46 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912142:3912132:3912131:3912141:3912151:3912152:3912153:3912143:3912133:3912123:3912122:3912121]

| CA RARE | | | | | | | | | | | | |
|--|----------------------------|----------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Allium sanbornii</i> <i>var. sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Brodiaea rosea</i> ssp. <i>vallicola</i> | valley brodiaea | Themidaceae | perennial bulbiferous herb | Apr-May(Jun) | None | None | G5T3 | S3 | 4.2 | Yes | 2019-01-07 |  © 2011 Steven Perry |
| <i>Brodiaea sierrae</i> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <i>Bulbostylis capillaris</i> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <i>Buxbaumia viridis</i> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <i>Calystegia stebbinsii</i> | Stebbins' morning-glory | Convolvulaceae | perennial rhizomatous herb | Apr-Jul | FE | CE | G1 | S1 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|---|--------------------------|----------------|--|--------------|------|------|--------|----|------|-----|------------|--|
| <u>Carex cyrtostachya</u> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <u>Carex xerophila</u> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <u>Clarkia biloba ssp. brandegeae</u> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Clarkia gracilis ssp. albicaulis</u> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <u>Clarkia mildrediae ssp. lutescens</u> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Clarkia mosquinii</u> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <u>Clarkia virgata</u> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <u>Cypripedium fasciculatum</u> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <u>Darlingtonia californica</u> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u>Downingia pusilla</u> | dwarf downingia | Campanulaceae | annual herb | Mar-May | None | None | GU | S2 | 2B.2 | | 1980-01-01 |  © 2013 Aaron Arthur |
| <u>Erigeron petrophilus var. sierrensis</u> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <u>Eriogonum umbellatum var. ahartii</u> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <u>Erythranthe filicifolia</u> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |

| | | | | | | | | | | | | |
|---|-------------------------|--------------------|----------------------------|--------------|------|------|---------|------|------|-----|------------|--|
| <u><i>Fissidens pauperculus</i></u> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <u><i>Fremontodendron decumbens</i></u> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Fritillaria eastwoodiae</i></u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <u><i>Juncus digitatus</i></u> | finger rush | Juncaceae | annual herb | (Apr)May-Jun | None | None | G1 | S1 | 1B.1 | Yes | 2009-01-02 |  Image by Wendy Boes |
| <u><i>Lathyrus sulphureus</i> var. <i>argillaceus</i></u> | dubious pea | Fabaceae | perennial herb | Apr-May | None | None | G5T1T2Q | S1S2 | 3 | Yes | 1994-01-01 | No Photo Available |
| <u><i>Lewisia cantelovii</i></u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1974-01-01 |  ©2005 Steve Matson |
| <u><i>Lilium humboldtii</i> ssp. <i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u><i>Lycopodiella inundata</i></u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Mielichhoferia elongata</i></u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u><i>Mielichhoferia shevockii</i></u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u><i>Packera layneae</i></u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | | |
|---|---------------------------|--------------------|----------------------------|------------------|------|------|-------|----|------|-----|--|------------|--|
| <u><i>Peltigera gowardii</i></u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | | 2014-03-01 |  © 2021 Scot Loring |
| <u><i>Perideridia bacigalupii</i></u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Plagiobothrys glyptocarpus</i> var. <i>modestus</i></u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | | 1980-01-01 | No Photo Available |
| <u><i>Poa sierrae</i></u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | | 2010-06-10 |  © 2012 Belinda Lo |
| <u><i>Pohlia flexuosa</i></u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | | 2014-10-10 | No Photo Available |
| <u><i>Pseudostellaria sierrae</i></u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | | 2004-01-01 | No Photo Available |
| <u><i>Pyrrocoma lucida</i></u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | | 1980-01-01 | No Photo Available |
| <u><i>Rhynchospora capitellata</i></u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u><i>Sanicula tracyi</i></u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | | 1974-01-01 |  ©2014 Zoya Akulova |
| <u><i>Scytinium siskiyouense</i></u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | | 2022-10-13 | No Photo Available |
| <u><i>Sidalcea gigantea</i></u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u><i>Sidalcea stipularis</i></u> | Scadden Flat checkerbloom | Malvaceae | perennial rhizomatous herb | Jul-Aug | None | CE | G1 | S1 | 1B.1 | Yes | | 1980-01-01 | No Photo Available |

| | | | | | | | | | | | |
|----------------------------------|-------------|-----------|-----------|---------|------|------|-----|------|-----|-------|-----------|
| <u>Vaccinium</u> | Siskiyou | Ericaceae | perennial | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | 1974- | |
| <u>coccineum</u> | Mountains | | deciduous | | | | | | | 01-01 | No Photo |
| | huckleberry | | shrub | | | | | | | | Available |

Showing 1 to 46 of 46 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 4 May 2023].

CNPS Rare Plant Inventory



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Search Criteria: 9-Quad include [3912058:3912048:3912068:3912151:3912141:3912152:3912162:3912161:3912142]

| CA RARE | | | | | | | | | | | | |
|---|-----------------------|-----------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|---|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Allium sanbornii</i> var. <i>sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Boechera constancei</i> | Constance's rockcress | Brassicaceae | perennial herb | May-Jul | None | None | G2 | S2 | 1B.1 | Yes | 1974-01-01 | No Photo Available |
| <i>Botrychium ascendens</i> | upswept moonwort | Ophioglossaceae | perennial rhizomatous herb | (Jun)Jul-Aug | None | None | G4 | S2 | 2B.3 | | 1994-01-01 |  © 2005 Steve Matson |
| <i>Botrychium minganense</i> | Mingan moonwort | Ophioglossaceae | perennial rhizomatous herb | Jul-Sep(Oct) | None | None | G5 | S3 | 4.2 | | 1994-01-01 |  © 2011 Aaron E. Sims |
| <i>Botrychium montanum</i> | western goblin | Ophioglossaceae | perennial rhizomatous herb | Jul-Sep | None | None | G3G4 | S2 | 2B.1 | | 1994-01-01 |  ©2012 Belinda Lo |
| <i>Botrychium pinnatum</i> | northwestern moonwort | Ophioglossaceae | perennial rhizomatous herb | Jul-Oct | None | None | G5 | S2 | 2B.3 | | 1994-01-01 |  ©2020 Belinda Lo |

| | | | | | | | | | | | | |
|---|----------------------------|---------------|----------------------------|--------------|------|------|---------|-----|------|-----|------------|---|
| <u>Brodiaea sierrae</u> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |
| <u>Bruchia bolanderi</u> | Bolander's bruchia | Bruchianaceae | moss | | None | None | G3 | S3 | 4.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <u>Bulbostylis capillaris</u> | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | 2001-01-01 |  ©2016 Ryan Batten |
| <u>Buxbaumia viridis</u> | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | 2011-03-23 |  © 2021 Scot Loring |
| <u>Cardamine pachystigma</u> <u>var. dissectifolia</u> | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | 1988-01-01 | No Photo Available |
| <u>Carex cyrtostachya</u> | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | 2015-08-18 | No Photo Available |
| <u>Carex xerophila</u> | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2016-06-06 | No Photo Available |
| <u>Clarkia biloba ssp. brandegeae</u> | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Clarkia mildrediae ssp. lutescens</u> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Clarkia mildrediae ssp. mildrediae</u> | Mildred's clarkia | Onagraceae | annual herb | May-Aug | None | None | G3T3? | S3? | 1B.3 | Yes | 1974-01-01 | No Photo Available |
| <u>Clarkia mosquinii</u> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <u>Clarkia virgata</u> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <u>Cypripedium californicum</u> | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | 1980-01-01 |  © 2012 Barry Rice |

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|--|--------------------------|-----------------|--|---------|------|------|----------|------|------|-----|--|------------|---|
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Eremogone cliftonii</i> | Clifton's eremogone | Caryophyllaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 1B.3 | Yes | | 2008-08-04 | No Photo Available |
| <i>Erigeron lassenianus</i> var. <i>deficiens</i> | Plumas rayless daisy | Asteraceae | perennial herb | Jun-Sep | None | None | G3G4T2T3 | S2S3 | 1B.3 | Yes | | 2012-09-28 | No Photo Available |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Frangula purshiana</i> ssp. <i>ultramafica</i> | Caribou coffeeberry | Rhamnaceae | perennial deciduous shrub | May-Jul | None | None | G4T2T3 | S2S3 | 1B.2 | Yes | | 2008-02-14 |  ©2014 Kirsten Bovee |
| <i>Fritillaria eastwoodiae</i> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <i>Lewisia cantelovii</i> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | | 1974-01-01 |  ©2005 Steve Matson |

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|---|-------------------------|--------------------|----------------------------|--------------|------|------|---------|------|------|-----|------------|--|
| <u>Lewisia kelloggii ssp. hutchisonii</u> | Hutchison's lewisia | Montiaceae | perennial herb | (Apr)May-Aug | None | None | G3G4T3Q | S3 | 3.2 | Yes | 2001-01-01 |  Dean Wm. Taylor 2006 |
| <u>Lilium humboldtii ssp. humboldtii</u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u>Lupinus dalesiae</u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Lycopodiella inundata</u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <u>Mielichhoferia elongata</u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001-01-01 |  © 2012 John Game |
| <u>Mielichhoferia shevockii</u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001-01-01 | No Photo Available |
| <u>Peltigera gowardii</u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014-03-01 |  © 2021 Scot Loring |
| <u>Perideridia bacigalupii</u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |
| <u>Piperia colemanii</u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | 2001-01-01 |  © 2005 Dean Wm. Taylor |
| <u>Poa sierrae</u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <u>Pyrrocoma lucida</u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|---|--------------------------------------|-----------------|----------------------------------|------------------|------|------|--------|------|------|-----|------------|---|
| <u>Rhynchospora capitellata</u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u>Sanicula tracyi</u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u>Scytinium siskiyouense</u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u>Sedum paradisum</u> ssp. <u>paradisum</u> | Canyon Creek stonecrop | Crassulaceae | perennial herb | May-Jun | None | None | G3G4T3 | S3 | 1B.3 | Yes | 1980-01-01 |  ©2018 Julie Kierstead Nelson |
| <u>Sidalcea gigantea</u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u>Stellaria obtusa</u> | obtuse starwort | Caryophyllaceae | perennial rhizomatous herb | May-Sep(Oct) | None | None | G5 | S4 | 4.3 | | 1988-01-01 |  ©2014 Kirsten Bovee |
| <u>Streptanthus tortuosus</u> ssp. <u>truei</u> | True's mountain jewelflower | Brassicaceae | perennial herb | Jun-Jul(Sep) | None | None | G5T1T2 | S1S2 | 1B.1 | Yes | 2016-07-20 |  © 2021 Robert E. Preston, Ph.D |
| <u>Trichodon cylindricus</u> | cylindrical trichodon | Ditrichaceae | moss | | None | None | G4G5 | S2 | 2B.2 | | 2001-01-01 | No Photo Available |
| <u>Vaccinium coccineum</u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |
| <u>Viola tomentosa</u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May-Oct | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

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Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 3 May 2023].








CNPS Rare Plant Inventory



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53 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912151:3912141:3912153:3912152:3912131:3912132:3912142:3912143:3912133:3912161:3912162:3912163]

| CA RARE | | | | | | | | | | | | |
|---|---------------------------|-----------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | DATE ADDED | PHOTO |
| <i>Agrostis hendersonii</i> | Henderson's bent grass | Poaceae | annual herb | Apr-Jun | None | None | G2Q | S2 | 3.2 | | 1974-01-01 |  ©2005 Steve Matson |
| <i>Allium sanbornii</i> var. <i>sanbornii</i> | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | 1994-01-01 |  ©2018 Steven Perry |
| <i>Arctostaphylos mewukka</i> ssp. <i>truei</i> | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | 1984-01-01 |  © 2008 George W. Hartwell |
| <i>Balsamorhiza macrolepis</i> | big-scale balsamroot | Asteraceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | 1974-01-01 |  ©1998 Dean Wm. Taylor |
| <i>Botrychium ascendens</i> | upswept moonwort | Ophioglossaceae | perennial rhizomatous herb | (Jun)Jul-Aug | None | None | G4 | S2 | 2B.3 | | 1994-01-01 |  © 2005 Steve Matson |
| <i>Botrychium minganense</i> | Mingan moonwort | Ophioglossaceae | perennial rhizomatous herb | Jul-Sep(Oct) | None | None | G5 | S3 | 4.2 | | 1994-01-01 |  © 2011 Aaron E. Sims |
| <i>Brodiaea sierrae</i> | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 2012-11-20 |  © 2006 George W. Hartwell |

| | | | | | | | | | | | | | |
|--|----------------------------|---------------|----------------------------|--------------|------|------|---------|-----|------|-----|--|------------|--|
| Bruchia bolanderi | Bolander's bruchia | Bruchianaceae | moss | | None | None | G3 | S3 | 4.2 | | | 2001-01-01 |  ©2021 Scot Loring |
| Bulbostylis capillaris | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | | 2001-01-01 |  ©2016 Ryan Batten |
| Buxbaumia viridis | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | | 2011-03-23 |  © 2021 Scot Loring |
| Cardamine pachystigma var. dissectifolia | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | | 1988-01-01 | No Photo Available |
| Carex cyrtostachya | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | | 2015-08-18 | No Photo Available |
| Carex xerophila | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | | 2016-06-06 | No Photo Available |
| Clarkia biloba ssp. brandegeae | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | | 2001-01-01 | No Photo Available |
| Clarkia gracilis ssp. albicaulis | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | | 1994-01-01 | No Photo Available |
| Clarkia mildrediae ssp. lutescens | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | | 2001-01-01 | No Photo Available |
| Clarkia mildrediae ssp. mildrediae | Mildred's clarkia | Onagraceae | annual herb | May-Aug | None | None | G3T3? | S3? | 1B.3 | Yes | | 1974-01-01 | No Photo Available |
| Clarkia mosquinii | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | | 1980-01-01 | No Photo Available |
| Clarkia virgata | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | | 1974-01-01 | No Photo Available |
| Cypripedium californicum | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | | 1980-01-01 |  © 2012 Barry Rice |
| Cypripedium fasciculatum | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | | 1980-01-01 |  © 2013 Scot Loring |

| | | | | | | | | | | | | | |
|--|--------------------------|-----------------|--|--------------|------|------|----------|------|------|-----|--|------------|---|
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Eremogone cliftonii</i> | Clifton's eremogone | Caryophyllaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 1B.3 | Yes | | 2008-08-04 | No Photo Available |
| <i>Erigeron lassenianus</i> var. <i>deficiens</i> | Plumas rayless daisy | Asteraceae | perennial herb | Jun-Sep | None | None | G3G4T2T3 | S2S3 | 1B.3 | Yes | | 2012-09-28 | No Photo Available |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Fremontodendron decumbens</i> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | | 1974-01-01 | No Photo Available |
| <i>Fritillaria eastwoodiae</i> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <i>Lewisia cantelovii</i> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | | 1974-01-01 |  ©2005 Steve Matson |
| <i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i> | Hutchison's lewisia | Montiaceae | perennial herb | (Apr)May-Aug | None | None | G3G4T3Q | S3 | 3.2 | Yes | | 2001-01-01 |  Dean Wm. Taylor 2006 |

| | | | | | | | | | | | | |
|--|-------------------------------|--------------------|----------------------------------|------------------|------|------|-------|------|------|-----|----------------|---|
| <u>Lilium humboldtii</u> <u>ssp. humboldtii</u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May- Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | 1994- 01-01 |  © 2008 Sierra Pacific Industries |
| <u>Lupinus dalesiae</u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974- 01-01 | No Photo Available |
| <u>Lycopodiella inundata</u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | 1980- 01-01 |  © 2021 Scot Loring |
| <u>Mielichhoferia elongata</u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | 2001- 01-01 |  © 2012 John Game |
| <u>Mielichhoferia shevockii</u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | 2001- 01-01 | No Photo Available |
| <u>Packera layneae</u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | 1974- 01-01 | No Photo Available |
| <u>Peltigera gowardii</u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | 2014- 03-01 |  © 2021 Scot Loring |
| <u>Perideridia bacigalupii</u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | 1974- 01-01 | No Photo Available |
| <u>Piperia colemanii</u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | 2001- 01-01 |  © 2005 Dean Wm. Taylor |
| <u>Plagiobothrys glyptocarpus</u> var. <u>modestus</u> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980- 01-01 | No Photo Available |
| <u>Poa sierrae</u> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010- 06-10 |  © 2012 Belinda Lo |
| <u>Pohlia flexuosa</u> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014- 10-10 | No Photo Available |
| <u>Pseudostellaria sierrae</u> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004- 01-01 | No Photo Available |

| | | | | | | | | | | | | |
|---|--------------------------------------|-----------------|----------------------------------|------------------|------|------|------|------|------|-----|------------|---|
| <u>Pyrrocoma lucida</u> | sticky pyrrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |
| <u>Rhynchospora capitellata</u> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <u>Sanicula tracyi</u> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <u>Scytinium siskiyouense</u> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <u>Sidalcea gigantea</u> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <u>Stellaria obtusa</u> | obtuse starwort | Caryophyllaceae | perennial rhizomatous herb | May-Sep(Oct) | None | None | G5 | S4 | 4.3 | | 1988-01-01 |  ©2014 Kirsten Bovee |
| <u>Vaccinium coccineum</u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974-01-01 | No Photo Available |
| <u>Viola tomentosa</u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May-Oct | None | None | G3 | S3 | 4.2 | Yes | 1974-01-01 | No Photo Available |

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Suggested Citation:

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CNPS Rare Plant Inventory




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47 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912141:3912142:3912048:3912058:3912151:3912152:3912153:3912143:3912133:3912132:3912131:3912038]

| CA RARE | | | | | | | | | | | | DATE ADDED | PHOTO |
|--|----------------------------|---------------|----------------------------|-----------------|----------|------------|-------------|------------|------------|------------|--|------------|--|
| ▲ SCIENTIFIC NAME | COMMON NAME | FAMILY | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | PLANT RANK | CA ENDEMIC | | | |
| Allium sanbornii var. sanbornii | Sanborn's onion | Alliaceae | perennial bulbiferous herb | May-Sep | None | None | G4T4? | S3S4 | 4.2 | | | 1994-01-01 |  ©2018 Steven Perry |
| Arctostaphylos mewukka ssp. truei | True's manzanita | Ericaceae | perennial evergreen shrub | Feb-Jul | None | None | G4?T3 | S3 | 4.2 | Yes | | 1984-01-01 |  © 2008 George W. Hartwell |
| Brodiaea sierrae | Sierra foothills brodiaea | Themidaceae | perennial bulbiferous herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | | 2012-11-20 |  © 2006 George W. Hartwell |
| Bulbostylis capillaris | thread-leaved beakseed | Cyperaceae | annual herb | Jun-Aug | None | None | G5 | S3 | 4.2 | | | 2001-01-01 |  ©2016 Ryan Batten |
| Buxbaumia viridis | green shield-moss | Buxbaumiaceae | moss | | None | None | G3G4 | S2 | 2B.2 | | | 2011-03-23 |  © 2021 Scot Loring |
| Cardamine pachystigma var. dissectifolia | dissected-leaved toothwort | Brassicaceae | perennial rhizomatous herb | Feb-May | None | None | G3G5T2Q | S2 | 1B.2 | Yes | | 1988-01-01 | No Photo Available |
| Carex cyrtostachya | Sierra arching sedge | Cyperaceae | perennial herb | May-Aug | None | None | G2 | S2 | 1B.2 | Yes | | 2015-08-18 | No Photo Available |
| Carex xerophila | chaparral sedge | Cyperaceae | perennial herb | Mar-Jun | None | None | G2 | S2 | 1B.2 | Yes | | 2016-06-06 | No Photo Available |
| Clarkia biloba ssp. brandegeae | Brandegee's clarkia | Onagraceae | annual herb | (Mar)May-Jul | None | None | G4G5T4 | S4 | 4.2 | Yes | | 2001-01-01 | No Photo Available |

| | | | | | | | | | | | | |
|--|---------------------------|----------------|--|--------------|------|------|----------|------|------|-----|------------|---|
| <i>Clarkia gracilis</i> ssp. <i>albicaulis</i> | white-stemmed clarkia | Onagraceae | annual herb | May-Jul | None | None | G5T3 | S3 | 1B.2 | Yes | 1994-01-01 | No Photo Available |
| <i>Clarkia mildrediae</i> ssp. <i>lutescens</i> | golden-anthered clarkia | Onagraceae | annual herb | Jun-Aug | None | None | G3T3 | S3 | 4.2 | Yes | 2001-01-01 | No Photo Available |
| <i>Clarkia mosquinii</i> | Mosquin's clarkia | Onagraceae | annual herb | May-Jul(Sep) | None | None | G2 | S2 | 1B.1 | Yes | 1980-01-01 | No Photo Available |
| <i>Clarkia virgata</i> | Sierra clarkia | Onagraceae | annual herb | May-Aug | None | None | G3 | S3 | 4.3 | Yes | 1974-01-01 | No Photo Available |
| <i>Cypripedium californicum</i> | California lady's-slipper | Orchidaceae | perennial rhizomatous herb | Apr-Aug(Sep) | None | None | G3 | S4 | 4.2 | | 1980-01-01 |  © 2012 Barry Rice |
| <i>Cypripedium fasciculatum</i> | clustered lady's-slipper | Orchidaceae | perennial rhizomatous herb | Mar-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2013 Scot Loring |
| <i>Darlingtonia californica</i> | California pitcherplant | Sarraceniaceae | perennial rhizomatous herb (carnivorous) | Apr-Aug | None | None | G4 | S4 | 4.2 | | 1980-01-01 |  © 2021 Scot Loring |
| <i>Erigeron lassenianus</i> var. <i>deficiens</i> | Plumas rayless daisy | Asteraceae | perennial herb | Jun-Sep | None | None | G3G4T2T3 | S2S3 | 1B.3 | Yes | 2012-09-28 | No Photo Available |
| <i>Erigeron petrophilus</i> var. <i>sierrensis</i> | northern Sierra daisy | Asteraceae | perennial rhizomatous herb | Jun-Oct | None | None | G4T4 | S4 | 4.3 | Yes | 1994-01-01 | No Photo Available |
| <i>Eriogonum umbellatum</i> var. <i>ahartii</i> | Ahart's buckwheat | Polygonaceae | perennial herb | Jun-Sep | None | None | G5T3 | S3 | 1B.2 | Yes | 2010-11-29 | No Photo Available |
| <i>Erythranthe filicifolia</i> | fern-leaved monkeyflower | Phrymaceae | annual herb | Apr-Jun | None | None | G2 | S2 | 1B.2 | Yes | 2017-05-10 |  Belinda Lo, 2020 |
| <i>Fissidens pauperculus</i> | minute pocket moss | Fissidentaceae | moss | | None | None | G3? | S2 | 1B.2 | | 2001-01-01 |  ©2021 Scot Loring |
| <i>Fremontodendron decumbens</i> | Pine Hill flannelbush | Malvaceae | perennial evergreen shrub | Apr-Jul | FE | CR | G1 | S1 | 1B.2 | Yes | 1974-01-01 | No Photo Available |

| | | | | | | | | | | | | | |
|--|----------------------------|--------------------|----------------------------------|--------------|------|------|---------|------|------|-----|--|------------|--|
| <u><i>Fritillaria eastwoodiae</i></u> | Butte County fritillary | Liliaceae | perennial bulbiferous herb | Mar-Jun | None | None | G3Q | S3 | 3.2 | | | 1974-01-01 |  ©2009 Sierra Pacific Industries |
| <u><i>Lathyrus sulphureus</i></u> var. <u><i>argillaceus</i></u> | dubious pea | Fabaceae | perennial herb | Apr-May | None | None | G5T1T2Q | S1S2 | 3 | Yes | | 1994-01-01 | No Photo Available |
| <u><i>Lewisia cantelovii</i></u> | Cantelow's lewisia | Montiaceae | perennial herb | May-Oct | None | None | G3 | S3 | 1B.2 | Yes | | 1974-01-01 |  ©2005 Steve Matson |
| <u><i>Lilium humboldtii</i></u> ssp. <u><i>humboldtii</i></u> | Humboldt lily | Liliaceae | perennial bulbiferous herb | May-Jul(Aug) | None | None | G4T3 | S3 | 4.2 | Yes | | 1994-01-01 |  © 2008 Sierra Pacific Industries |
| <u><i>Lupinus dalesiae</i></u> | Quincy lupine | Fabaceae | perennial herb | May-Aug | None | None | G3 | S3 | 4.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Lycopodiella inundata</i></u> | inundated bog-clubmoss | Lycopodiaceae | perennial rhizomatous herb | Jun-Sep | None | None | G5 | S1 | 2B.2 | | | 1980-01-01 |  © 2021 Scot Loring |
| <u><i>Mielichhoferia elongata</i></u> | elongate copper moss | Mielichhoferiaceae | moss | | None | None | G5 | S3S4 | 4.3 | | | 2001-01-01 |  © 2012 John Game |
| <u><i>Mielichhoferia shevockii</i></u> | Shevock's copper moss | Mielichhoferiaceae | moss | | None | None | G2 | S2 | 1B.2 | Yes | | 2001-01-01 | No Photo Available |
| <u><i>Packera layneae</i></u> | Layne's ragwort | Asteraceae | perennial herb | Apr-Aug | FT | CR | G2 | S2 | 1B.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Peltigera gowardii</i></u> | western waterfan lichen | Peltigeraceae | foliose lichen (aquatic) | | None | None | G4? | S3 | 4.2 | | | 2014-03-01 |  © 2021 Scot Loring |
| <u><i>Perideridia bacigalupii</i></u> | Bacigalupi's yampah | Apiaceae | perennial herb | Jun-Aug | None | None | G3 | S3 | 4.2 | Yes | | 1974-01-01 | No Photo Available |
| <u><i>Piperia colemanii</i></u> | Coleman's rein orchid | Orchidaceae | perennial herb | Jun-Aug | None | None | G4 | S4 | 4.3 | Yes | | 2001-01-01 |  © 2005 Dean Wm. Taylor |

| | | | | | | | | | | | | |
|--|-----------------------------|--------------------|----------------------------|------------------|------|------|--------|------|------|-----|------------|--|
| <i>Plagiobothrys glyptocarpus</i> var. <i>modestus</i> | Cedar Crest popcornflower | Boraginaceae | annual herb | Apr-Jun | None | None | G3THQ | SH | 3 | Yes | 1980-01-01 | No Photo Available |
| <i>Poa sierrae</i> | Sierra blue grass | Poaceae | perennial rhizomatous herb | Apr-Jul | None | None | G3 | S3 | 1B.3 | Yes | 2010-06-10 |  © 2012 Belinda Lo |
| <i>Pohlia flexuosa</i> | flexuose threadmoss | Mielichhoferiaceae | moss | | None | None | G5 | S1 | 2B.1 | | 2014-10-10 | No Photo Available |
| <i>Pseudostellaria sierrae</i> | Sierra starwort | Caryophyllaceae | perennial rhizomatous herb | May-Aug | None | None | G3G4 | S3 | 4.2 | Yes | 2004-01-01 | No Photo Available |
| <i>Pyrocoma lucida</i> | sticky pyrocoma | Asteraceae | perennial herb | Jul-Oct | None | None | G3 | S3 | 1B.2 | Yes | 1980-01-01 | No Photo Available |
| <i>Rhynchospora capitellata</i> | brownish beaked-rush | Cyperaceae | perennial herb | Jul-Aug | None | None | G5 | S1 | 2B.2 | | 1974-01-01 |  ©2004 Dean Wm. Taylor |
| <i>Sanicula tracyi</i> | Tracy's sanicle | Apiaceae | perennial herb | Apr-Jul | None | None | G4 | S4 | 4.2 | Yes | 1974-01-01 |  ©2014 Zoya Akulova |
| <i>Scytinium siskiyouense</i> | Siskiyou jellyskin lichen | Collemataceae | foliose lichen | | None | None | G2G3 | S1 | 1B.1 | | 2022-10-13 | No Photo Available |
| <i>Sidalcea gigantea</i> | giant checkerbloom | Malvaceae | perennial rhizomatous herb | (Jan-Jun)Jul-Oct | None | None | G3 | S3 | 4.3 | Yes | 2012-07-10 |  ©2018 Sierra Pacific Industries |
| <i>Streptanthus longisiliquus</i> | long-fruit jewelflower | Brassicaceae | perennial herb | Apr-Sep | None | None | G3 | S3 | 4.3 | Yes | 2007-08-31 |  ©2008 Sierra Pacific Industries |
| <i>Streptanthus tortuosus</i> ssp. <i>truei</i> | True's mountain jewelflower | Brassicaceae | perennial herb | Jun-Jul(Sep) | None | None | G5T1T2 | S1S2 | 1B.1 | Yes | 2016-07-20 |  © 2021 Robert E. Preston, Ph.D |

| | | | | | | | | | | | | |
|--|--------------------------------------|-----------|---------------------------------|------------------|------|------|-----|------|-----|-----|----------------|-----------------------|
| <u>Vaccinium</u> <u>coccineum</u> | Siskiyou Mountains huckleberry | Ericaceae | perennial deciduous shrub | Jun-Aug | None | None | G3Q | S2S3 | 3.3 | | 1974- 01-01 | No Photo Available |
| <u>Viola tomentosa</u> | felt-leaved violet | Violaceae | perennial herb | (Apr)May- Oct | None | None | G3 | S3 | 4.2 | Yes | 1974- 01-01 | No Photo Available |

Showing 1 to 47 of 47 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 3 May 2023].

APPENDIX B

Representative Site Photographs



Photo 1. Bignonia Maple Woodland and seep aquatic features on Oregon Hill Road segment within CRLF Critical Habitat near Little Oregon Creek.



Photo 2. Seasonal wetland on Frenchtown Road segment.



Photo 3. Seasonal wetland swale coming from a wet meadow in the background on Frenchtown Road segment.



Photo 4. Seasonal wetland on Frenchtown Road segment.



Photo 5. Dry Creek riparian corridor on Frenchtown Road segment.



Photo 6. Roadside ephemeral drainage on the Mountain House Road segment.



Photo 7. Seasonal wetland swale on La Porte Road east segment.



Photo 8. Serpentinite rocks and soil within an ephemeral drainage on La Porte Road east segment.

Species Potential to Occur Table

| Common Name (<i>Scientific Name</i>) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|---|---------------------|--|------------|------------------|----------------------|----------------------|-----------------|--------------------|--------------------|------------------|---------------------|------------------|--------------------|---------------------|--------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Plants | | | | | | | | | | | | | | | | |
| Stebbins' morning-glory (<i>Calystegia stebbinsi</i>) | FE | Serpentinite or gabbroic soils in chaparral and cismontane woodland. Elevation: 605'–3,575' Bloom Period: April–July | - | - | - | - | - | - | - | - | - | - | - | Potential to Occur | - | - |
| Pine Hill flannelbush (<i>Fremontodendron decumbens</i>) | FE | Serpentinite or gabbroic soils in chaparral and cismontane woodland. Elevation: 1,395'-2,495' Bloom Period: April–July | Absent | Absent | - | Absent | Absent | Potential to Occur | Potential to Occur | Absent | Absent | Absent | Absent | Potential to Occur | Absent | Absent |
| Layne's ragwort (<i>Packera layneae</i>) | FT | Serpentinite or gabbroic soils in chaparral and cismontane woodland. Elevation: 655'–3,560' Bloom Period: April–August | Absent | - | - | Potential to Occur | Absent | Potential to Occur | Potential to Occur | Absent | - | Absent | Absent | Potential to Occur | - | - |

| Common Name (<i>Scientific Name</i>) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|--|---------------------|---|------------|------------------|----------------------|----------------------|-----------------|--------------------|-----------------|------------------|---------------------|------------------|--------------------|---------------------|--------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Invertebrates | | | | | | | | | | | | | | | | |
| Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>) | FT | Vernal pools/wetlands. Survey Period: November–April when surface water is present. | - | - | - | - | - | Absent | Absent | - | - | Absent | - | - | - | - |
| Monarch butterfly (<i>Danaus plexippus</i>) | FC | Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants. | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent |

| Common Name (Scientific Name) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|---|---------------------|---|------------|------------------|----------------------|----------------------|-----------------|--------------------|-----------------|------------------|---------------------|------------------|--------------------|---------------------|--------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Valley elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>) | FT | Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California's Central Valley from Shasta to Madera counties. | - | - | - | - | - | Absent | Absent | - | - | - | - | - | - | - |
| Fish | | | | | | | | | | | | | | | | |
| Chinook salmon – Central Valley spring-run ESU (<i>Oncorhynchus tshawytscha</i>) | FT | Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems. Survey Period: N/A | - | - | - | - | - | - | - | - | - | - | - | Absent | - | - |
| Steelhead- Central Valley DPS (<i>Oncorhynchus mykiss irideus</i>) | FT | Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems. Survey Period: N/A | - | - | - | - | - | - | - | - | - | - | - | Absent | - | - |

| Common Name (<i>Scientific Name</i>) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|--|---------------------|--|------------|------------------|----------------------|----------------------|-----------------|--------------------|-----------------|------------------|---------------------|------------------|--------------------|---------------------|--------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Amphibians | | | | | | | | | | | | | | | | |
| Foothill yellow-legged frog Feather River DPS (<i>Rana boylei</i>) | FPT | Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Feather River watershed above Oroville. Survey Period: May–October. | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent |

| Common Name (Scientific Name) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|---|---------------------|--|--------------------|--------------------|----------------------|----------------------|-----------------|--------------------|--------------------|------------------|---------------------|------------------|--------------------|---------------------|--------------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| California red- legged frog (<i>Rana draytonii</i>) | FT | Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down. Survey Period: January – Sept. | Potential to Occur | Potential to Occur | Potential to Occur | Absent | Absent | Absent | Potential to Occur | Present | Potential to Occur | Absent | Absent | Potential to Occur | Potential to Occur | Absent |

| Common Name (Scientific Name) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|--|---------------------|---|------------|------------------|----------------------|----------------------|-----------------|--------------------|-----------------|------------------|---------------------|------------------|--------------------|---------------------|--------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Sierra Nevada yellow-legged frog (<i>Rana sierrae</i>) | FE | Lakes, ponds, marshes, meadows, and streams from 4,500 to 12,000 feet. Tadpoles may require 2 to 4 years to complete larval development. Sierra Nevada Mountains north of Fresno County and east to Inyo and Mono Counties. Survey Period: March – September. | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent |
| Reptiles | | | | | | | | | | | | | | | | |
| Giant garter snake (<i>Thamnophis gigas</i>) | FT | Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range. Survey Period: April-October | - | - | - | - | - | Absent | Absent | - | - | - | - | - | - | - |

| Common Name (Scientific Name) | Status ¹ | Habitat Description/ Species Ecology | Baker Road | Youngs Hill Road | La Porte Road (east) | La Porte Road (west) | Marysville Road | Frenchtown Dobbins | Frenchtown Road | Oregon Hill Road | Mountain House Road | Challenge Cutoff | Indiana Ranch Road | Indiana School Road | Pendola Road | Cleveland Avenue* |
|---|---------------------|--|--------------------|--------------------|----------------------|----------------------|--------------------|--------------------|-----------------|--------------------|---------------------|--------------------|--------------------|---------------------|--------------------|-------------------|
| | FESA | | | | | | | | | | | | | | | |
| Birds | | | | | | | | | | | | | | | | |
| California Spotted Owl (Strix occidentalis occidentalis) | FPT | Found in the southern Cascade Range and northern Sierra Nevada from Pit River, Shasta County south to Tehachapi Mountains, Kern County, in the coastal ranges from Monterey County to Santa Barbara County, in Transverse and Peninsular Ranges south to northern Baja California. At lower elevations, they breed in hardwood forests and coniferous forests at higher elevations. They use forests with greater complexity and structure. Nesting: March-September | Potential to Occur | Potential to Occur | Potential to Occur | Potential to Occur | Potential to Occur | Absent | Absent | Potential to Occur | Potential to Occur | Potential to Occur | Potential to Occur | Absent | Potential to Occur | Absent |

¹FESA – Federal Endangered Species Act; FE – FESA listed, Endangered; FT – FESA listed, Threatened; FC – Candidate for FESA listing as Threatened or Endangered; FPT – Proposed for FESA listing Threatened.

*The Old Camptonville Road and Highway 49 road segments are very small; therefore they are included in the analysis of Cleveland Avenue since they are contiguous and similar habitats.

APPENDIX D

Aquatic Resource Avoidance Map

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)

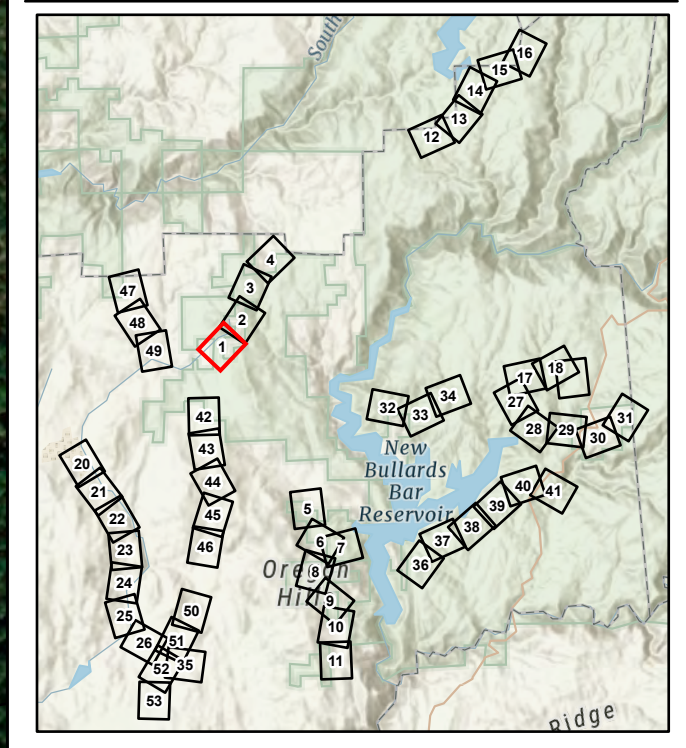


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri

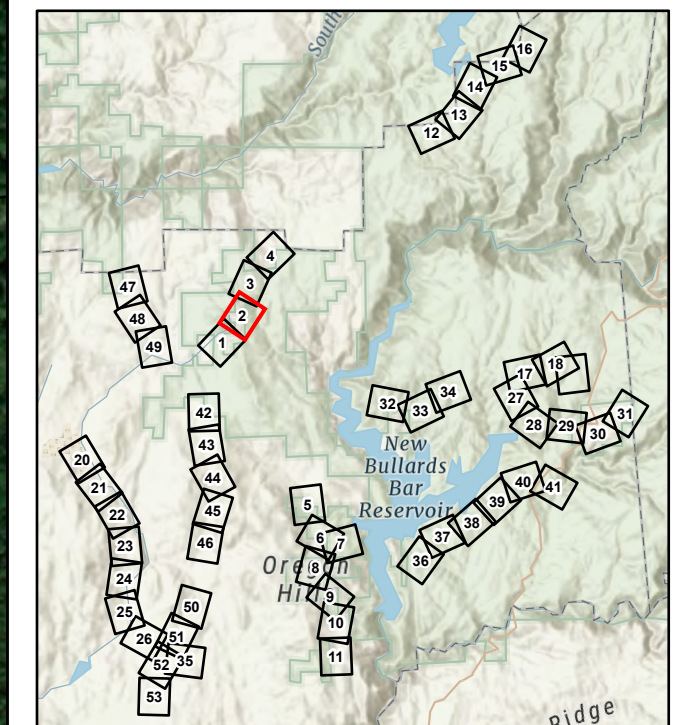


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- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri

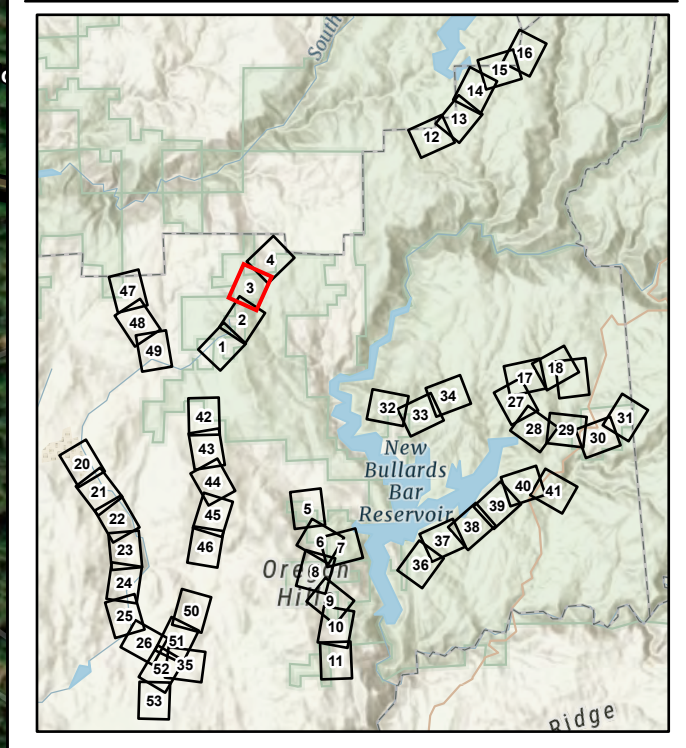


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- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area


Sources: Yuba County, USFWS, Esri




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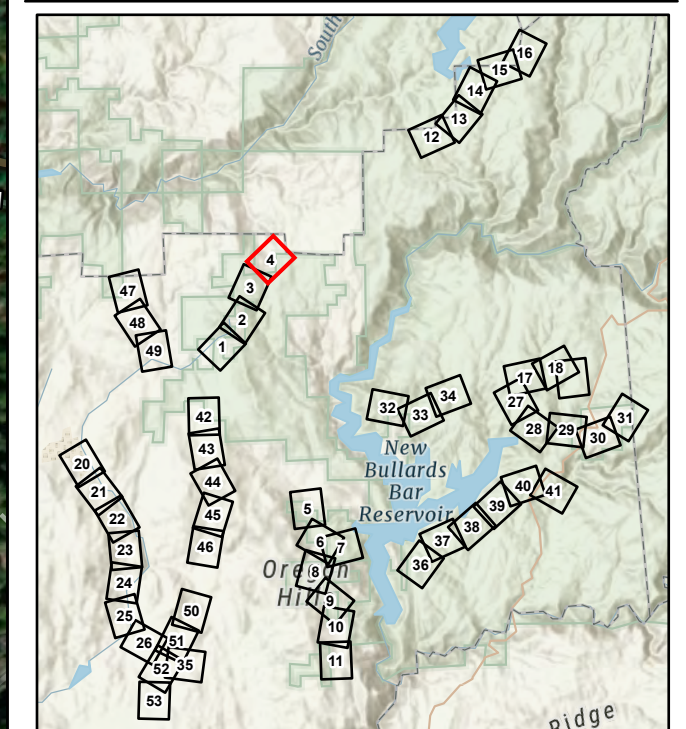


Map Contents

 Study Area

 Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



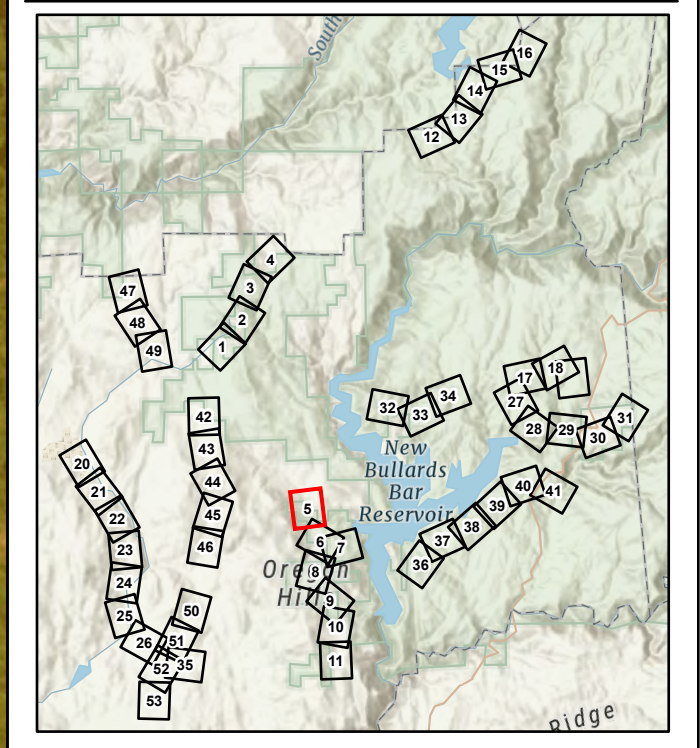
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Map Contents

- Study Area
- California Red Legged Frog Critical Habitat
- Aquatic Resource Avoidance Area
- Culvert Location

Sources: Yuba County, USFWS, Esri

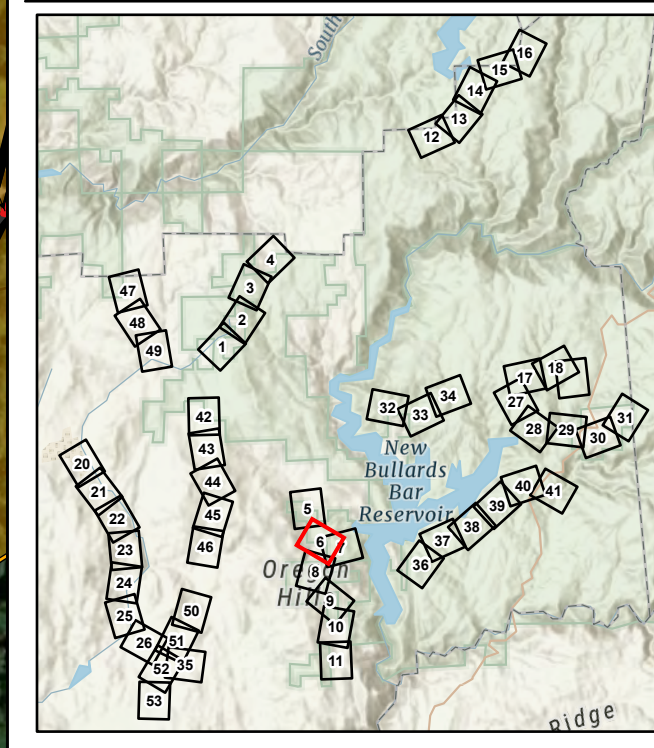


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- Map Contents**
- Study Area
 - California Red Legged Frog Critical Habitat
 - Aquatic Resource Avoidance Area
 - Culvert Location

Sources: Yuba County, USFWS, Esri

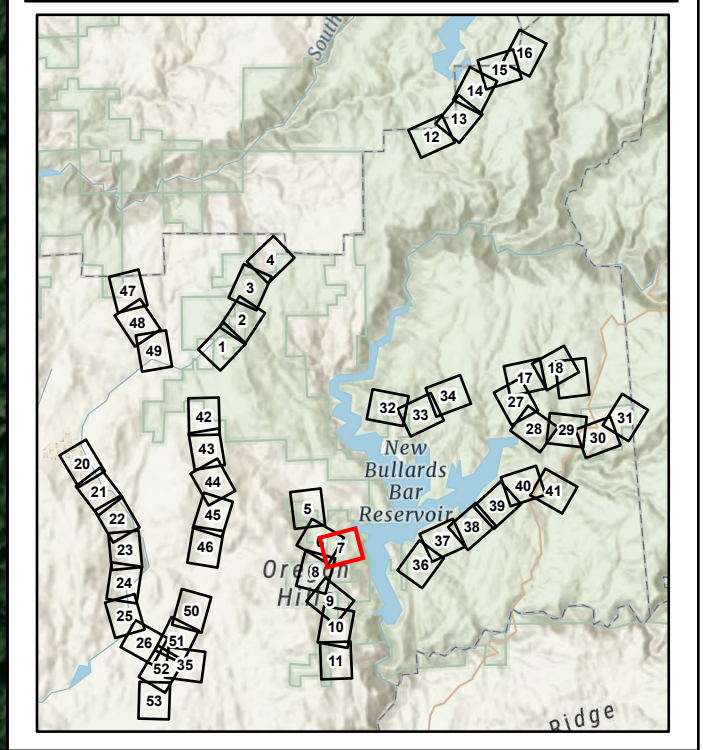




Map Contents

- Study Area
- California Red Legged Frog Critical Habitat
- Aquatic Resource Avoidance Area
- Culvert Location

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents

- Study Area
- California Red Legged Frog Critical Habitat
- Culvert Location

Sources: Yuba County, USFWS, Esri

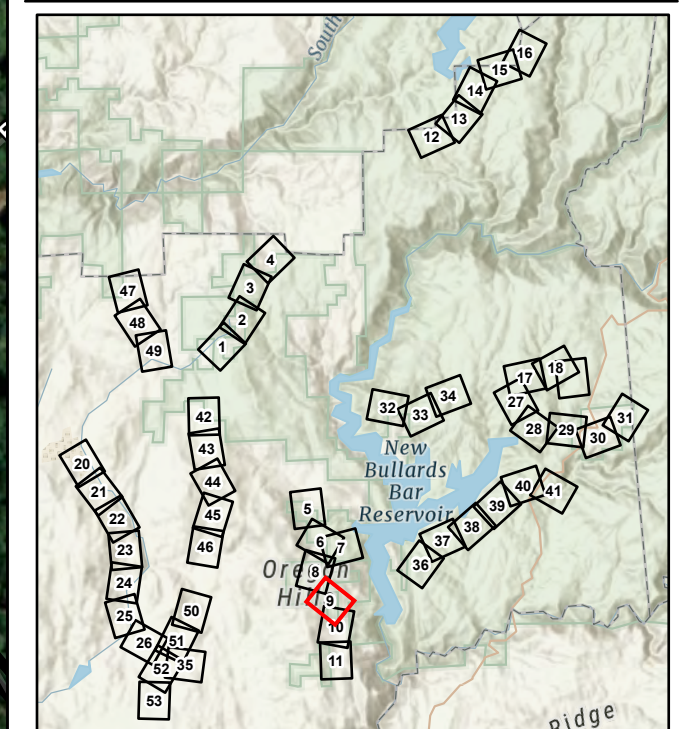
An inset map showing a larger geographic area. It includes a river labeled 'South Fork', a reservoir labeled 'New Bullards Bar Reservoir', and a ridge labeled 'ridge'. Numbered boxes (1-53) are scattered across the map, representing different project areas. Box 8 is highlighted with a red border. The map also shows topographic features like hills and valleys.

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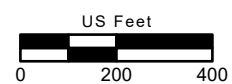
- Map Contents**
- Study Area
 - California Red Legged Frog Critical Habitat
 - Aquatic Resource Avoidance Area
 - Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Appendix D. Aquatic Resource Avoidance
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2023-074 CDBG-DR Roadside Fuel Reduction

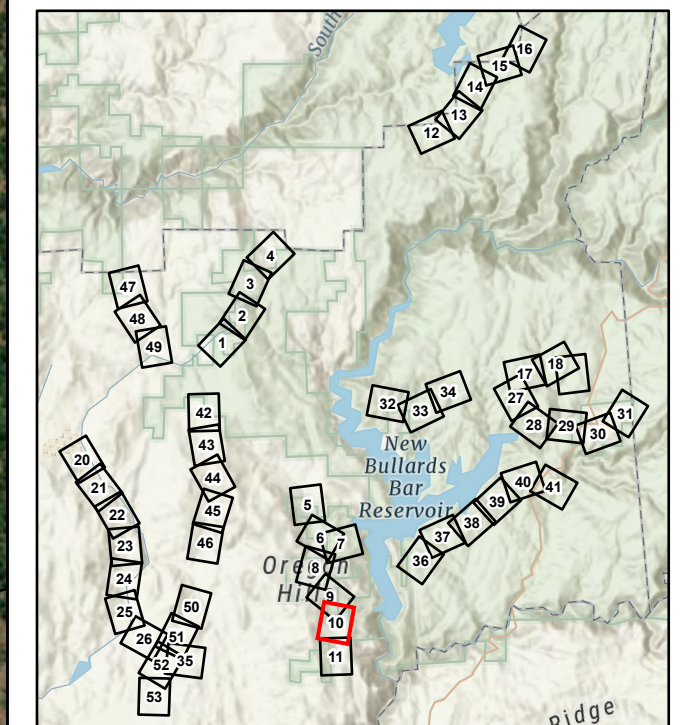
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Map Contents

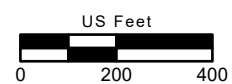
-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Appendix D. Aquatic Resource Avoidance Sheet 10 of 53

2023-074 CDBG-DR Roadside Fuel Reduction

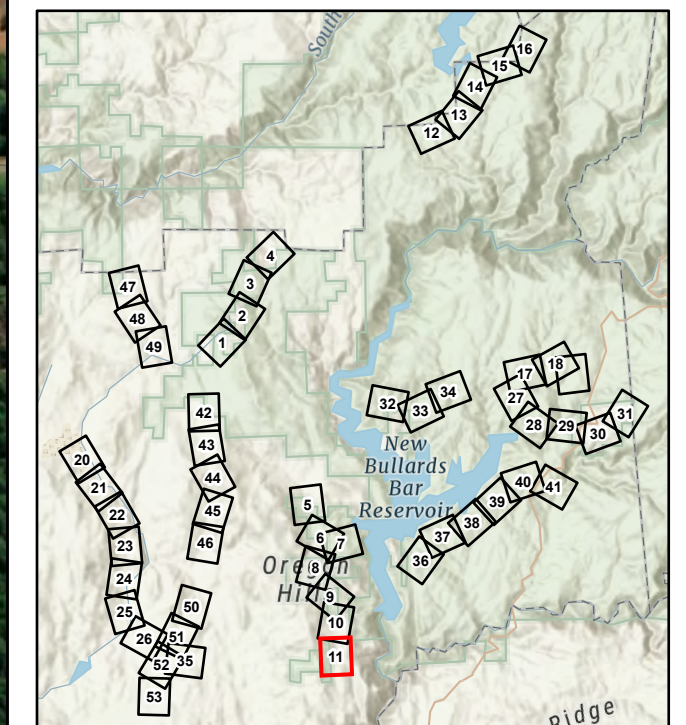
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

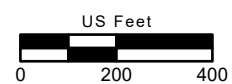
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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Appendix D. Aquatic Resource Avoidance Sheet 11 of 53

2023-074 CDBG-DR Roadside Fuel Reduction

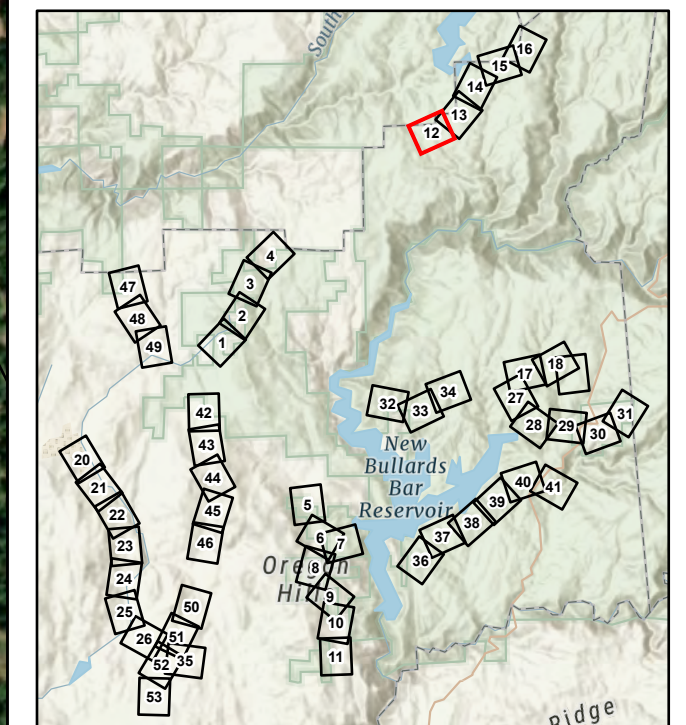
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

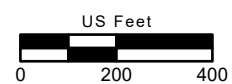
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Map Date: 8/9/2023



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Appendix D. Aquatic Resource Avoidance Sheet 12 of 53

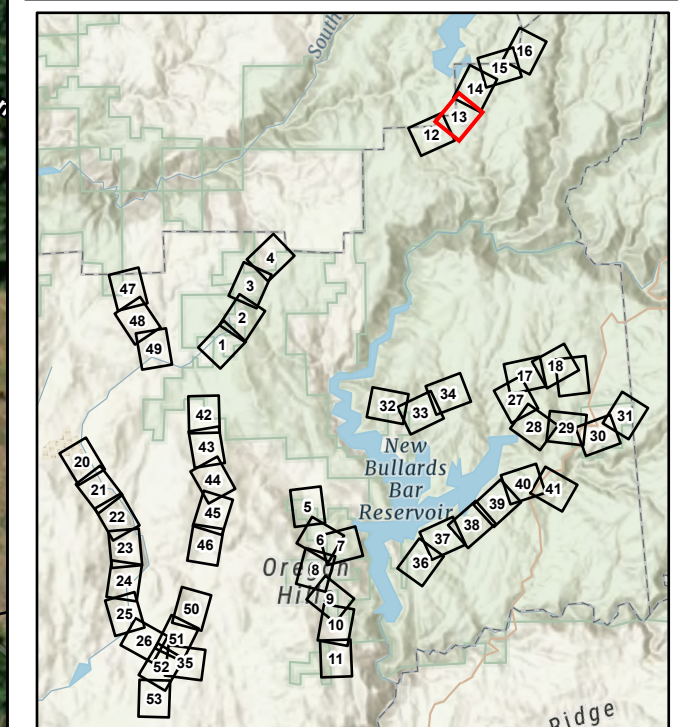
2023-074 CDBG-DR Roadside Fuel Reduction

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Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

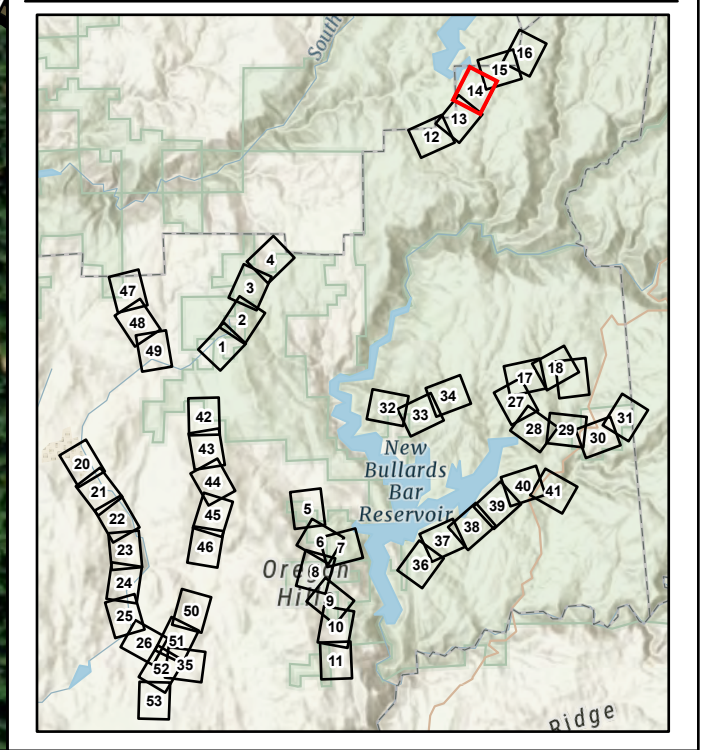




Map Contents

 Study Area

Sources: Yuba County, USFWS, Esri



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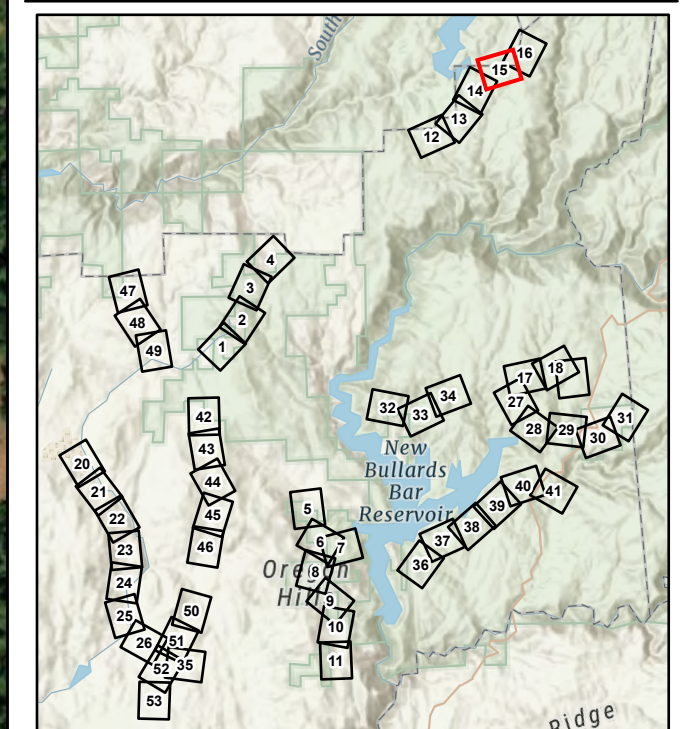


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Map Contents
Study Area

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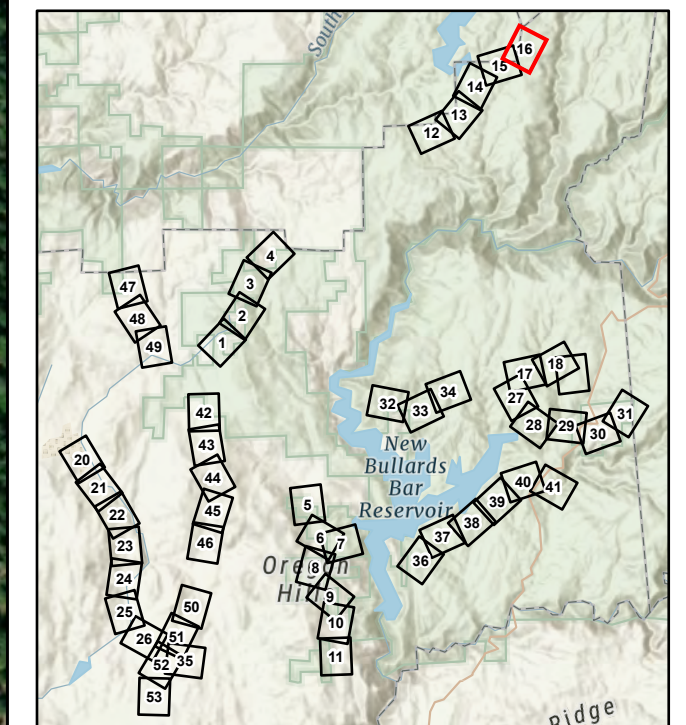


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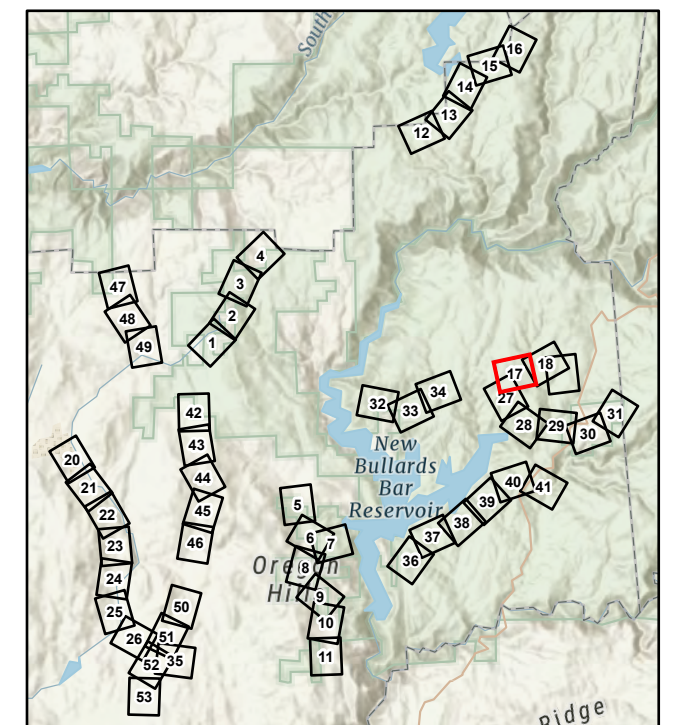
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Map Contents

 Study Area

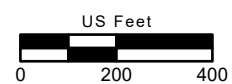
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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Appendix D. Aquatic Resource Avoidance



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2023-074 CDBG-DR Roadside Fuel Reduction

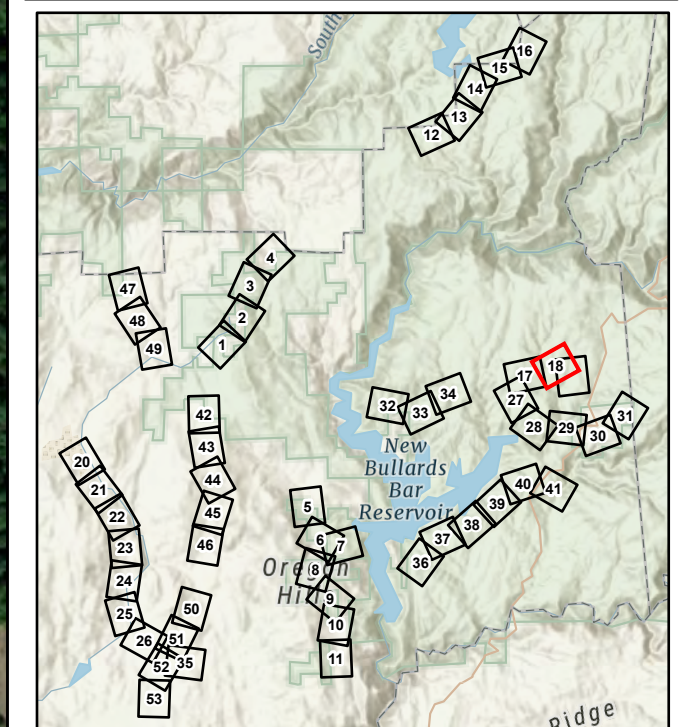
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Map Contents

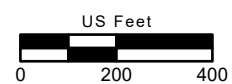
-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

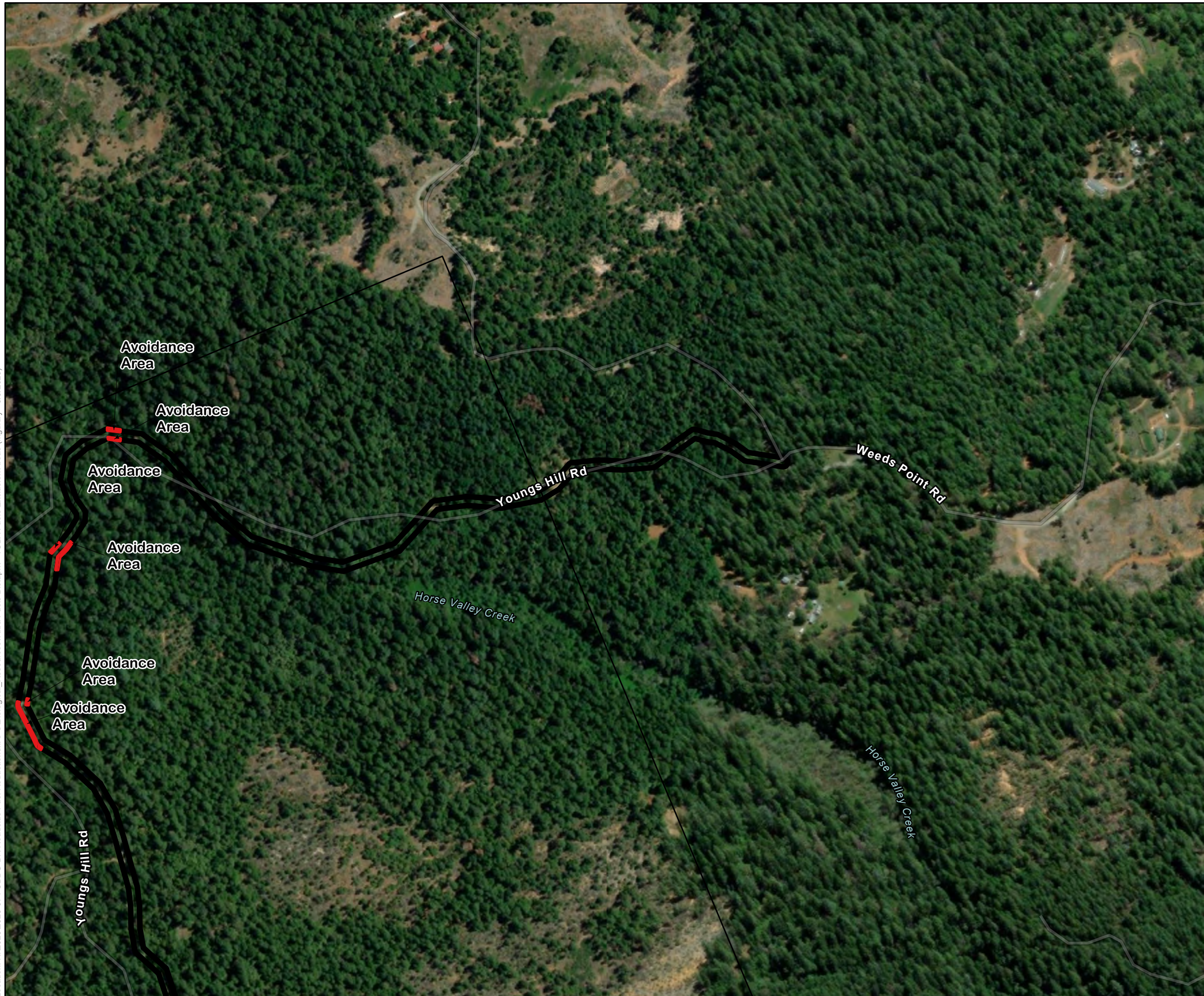
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2023-074 CDBG-DR Roadside Fuel Reduction

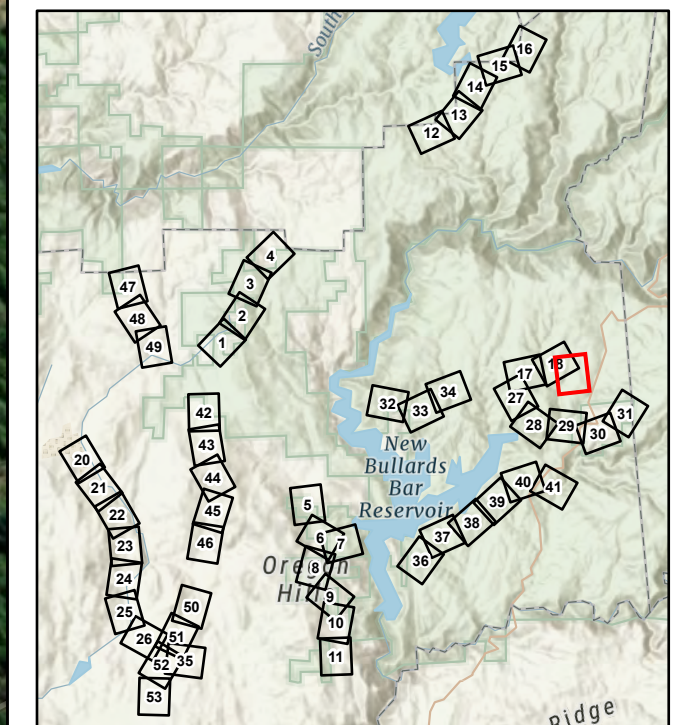
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

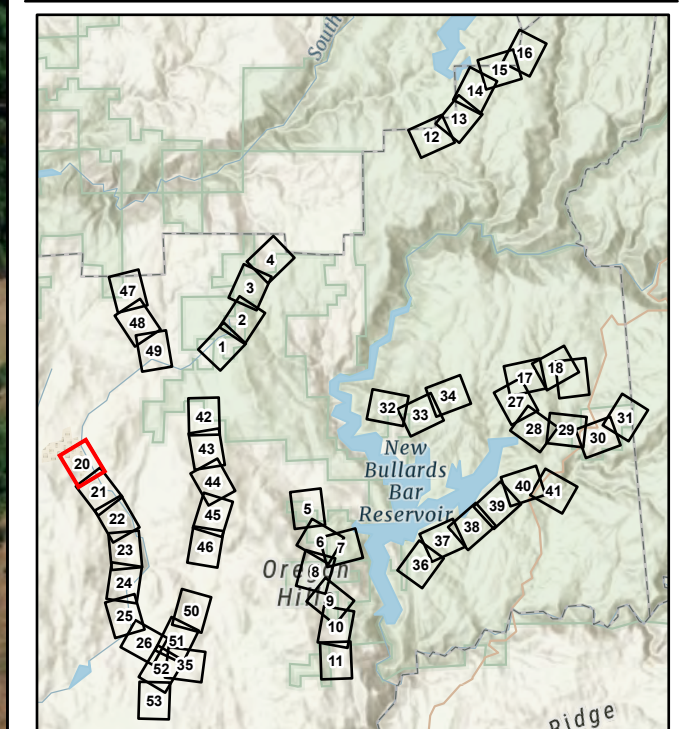


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

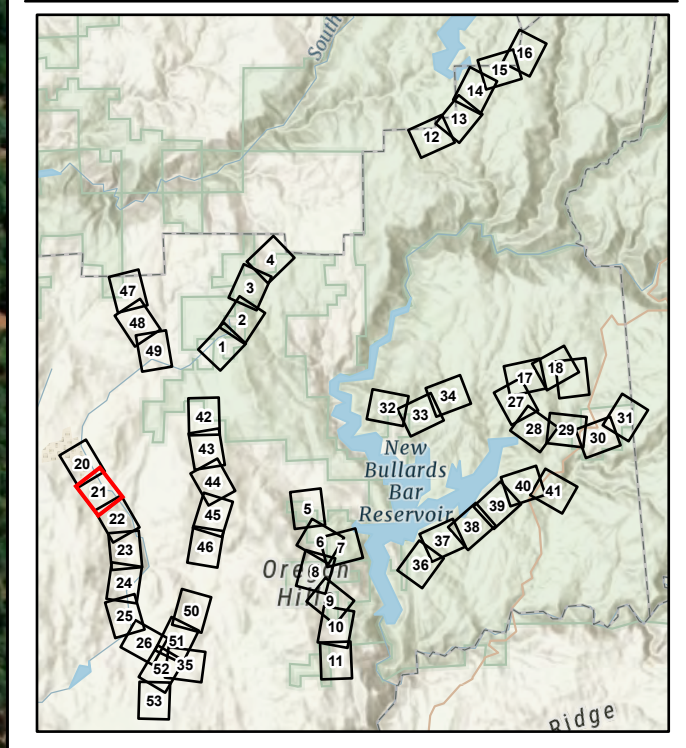


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

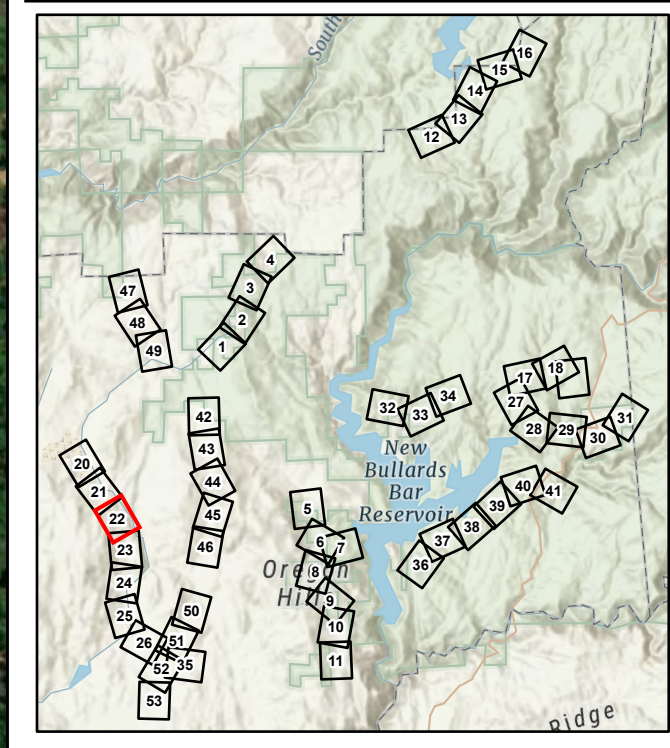


Map Contents

Study Area

Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



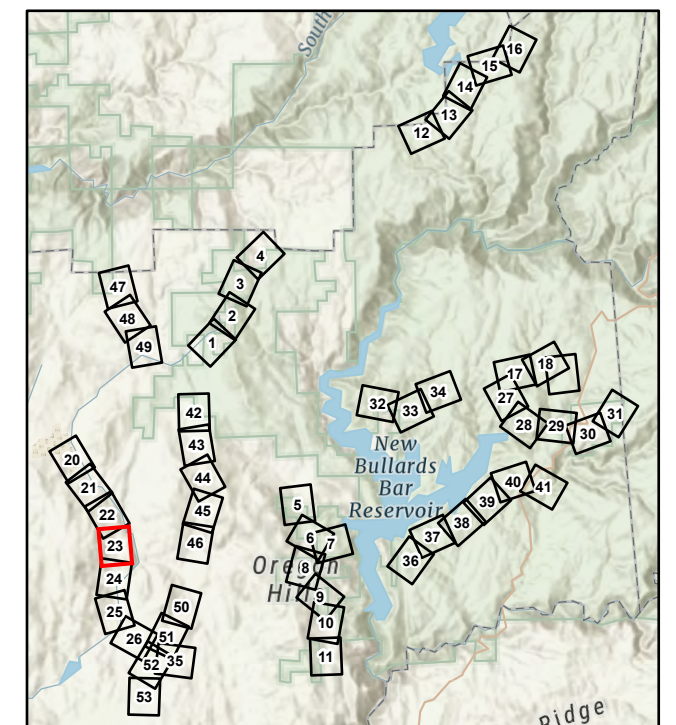
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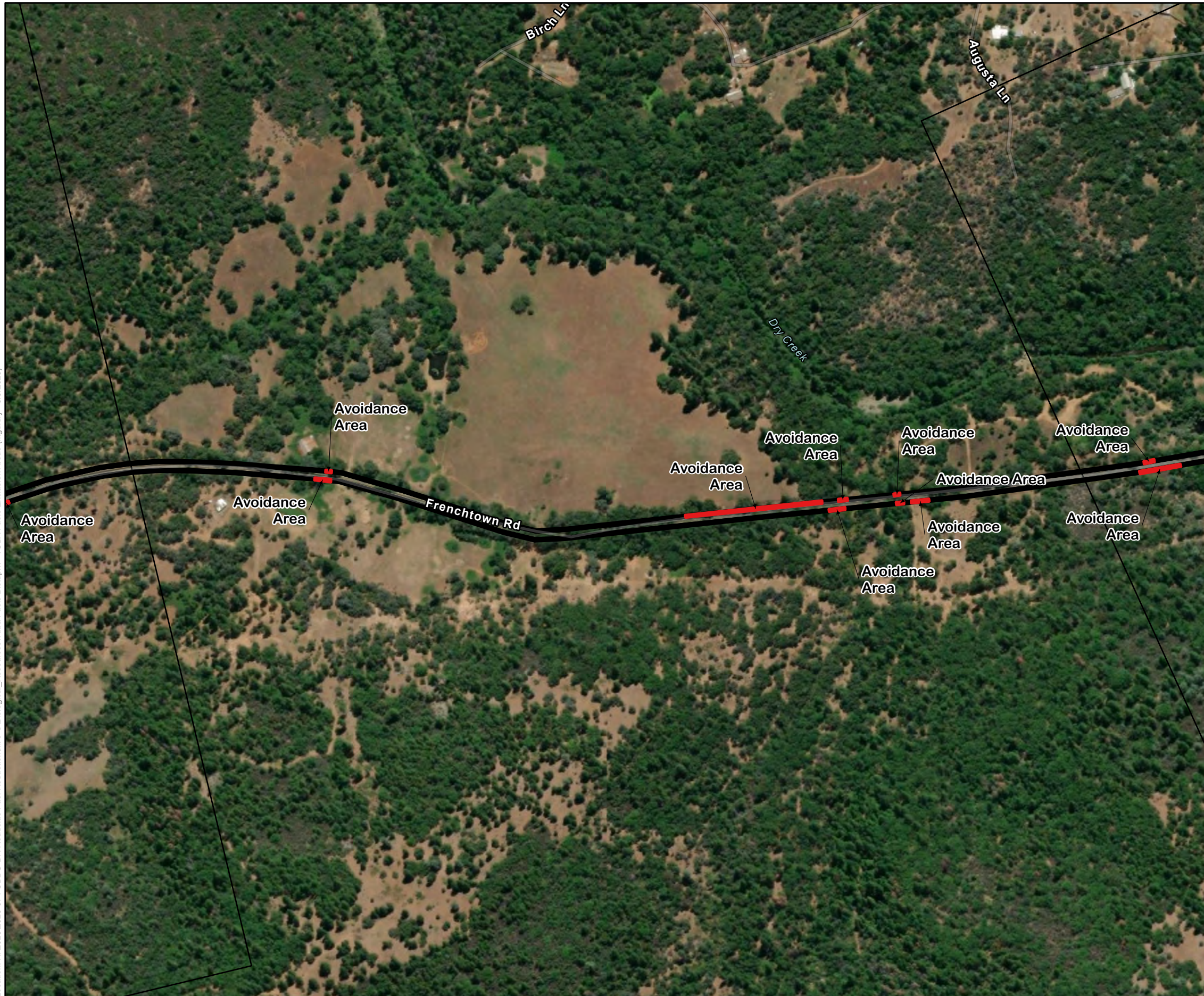
Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



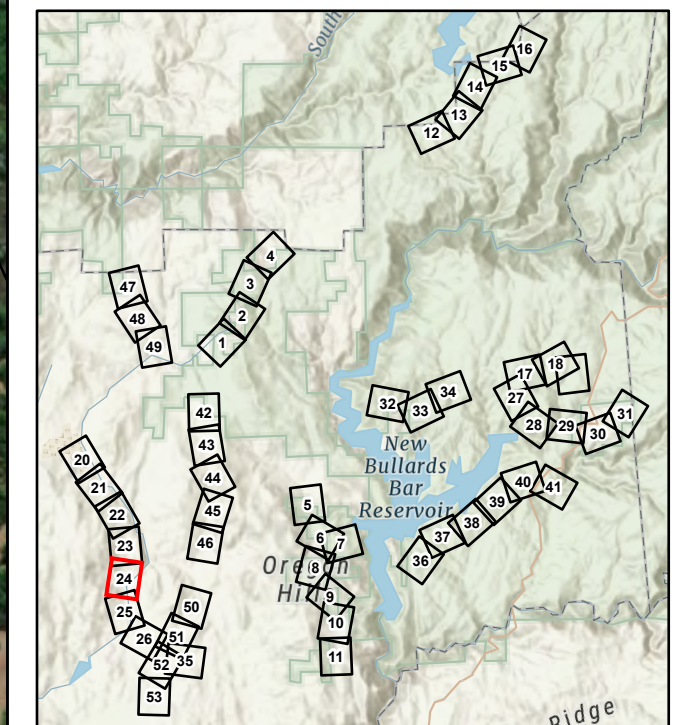
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

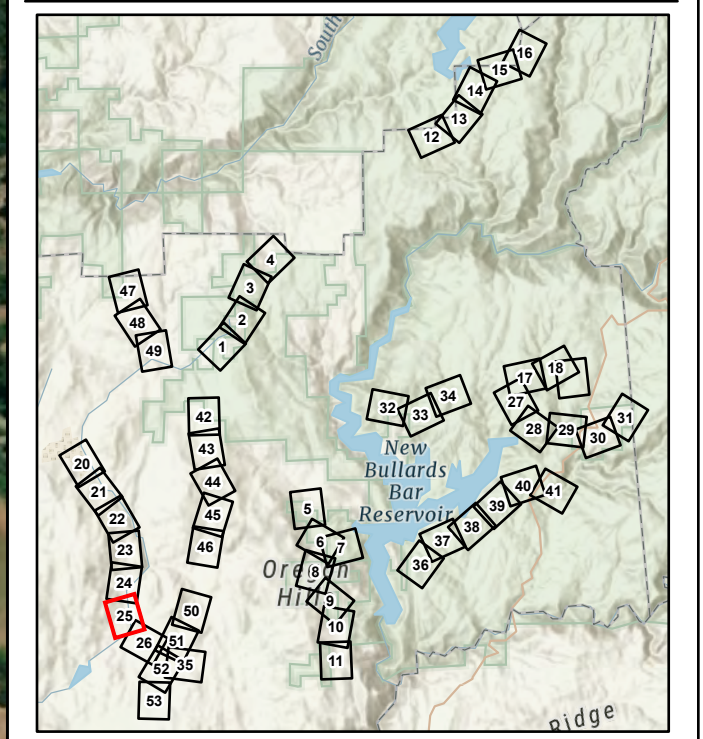


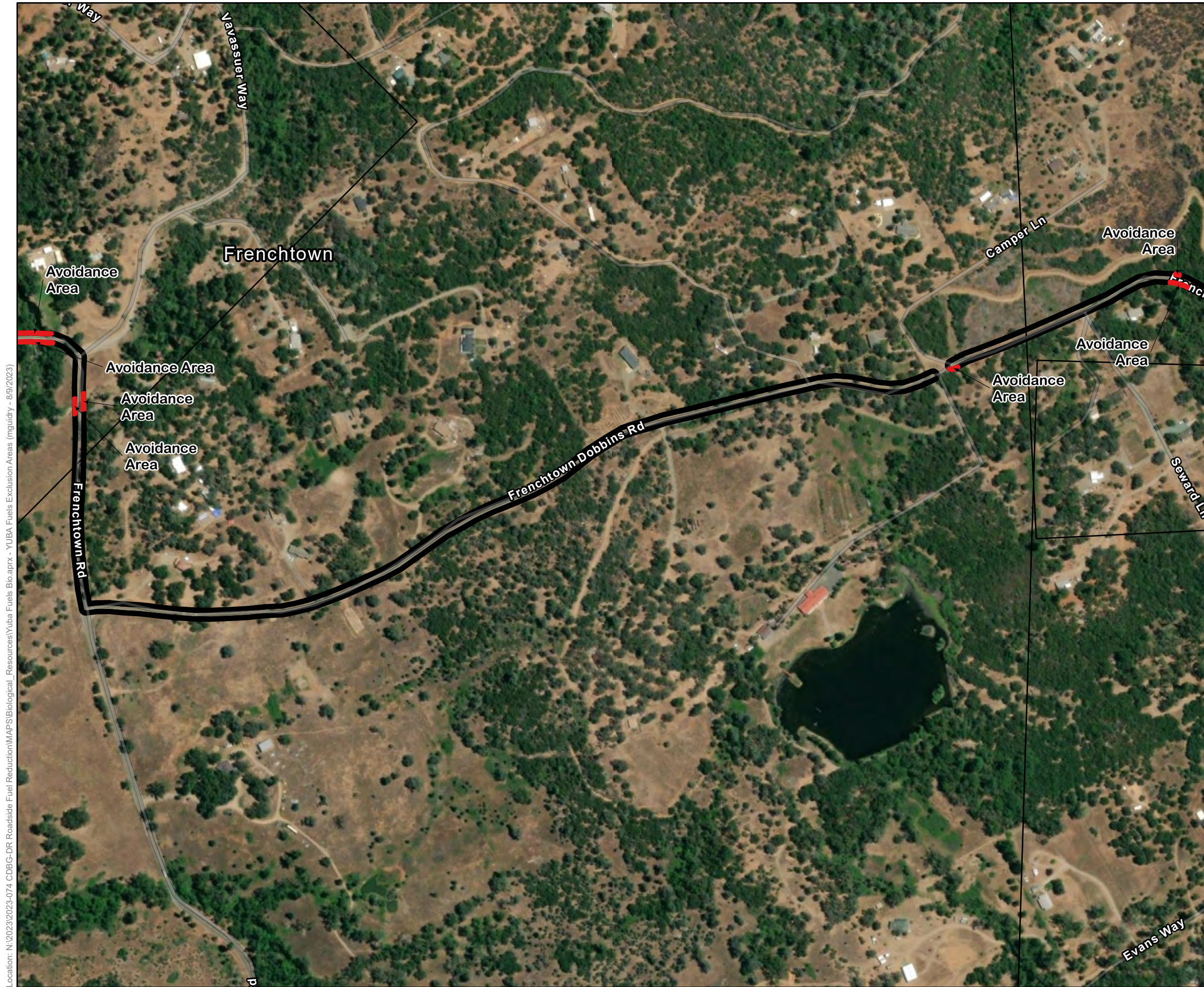
Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



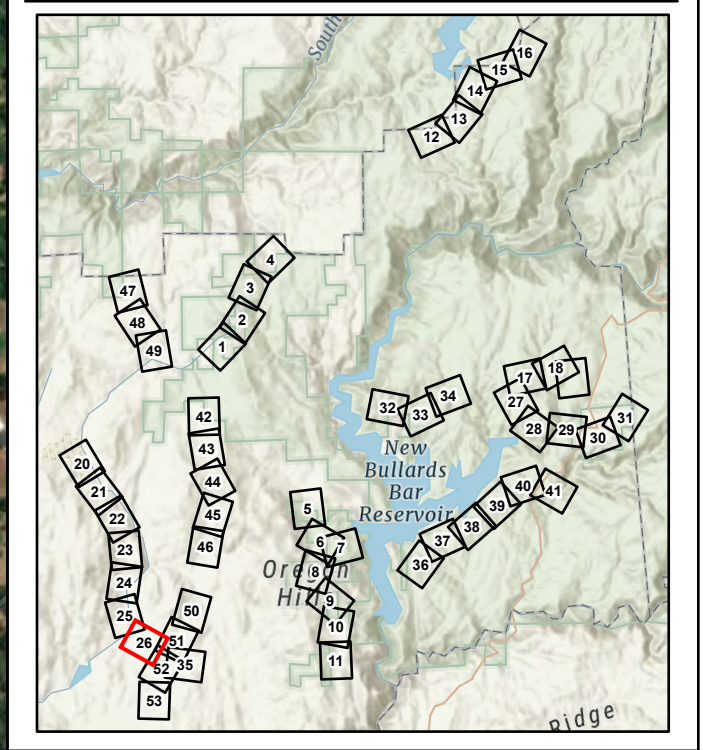


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



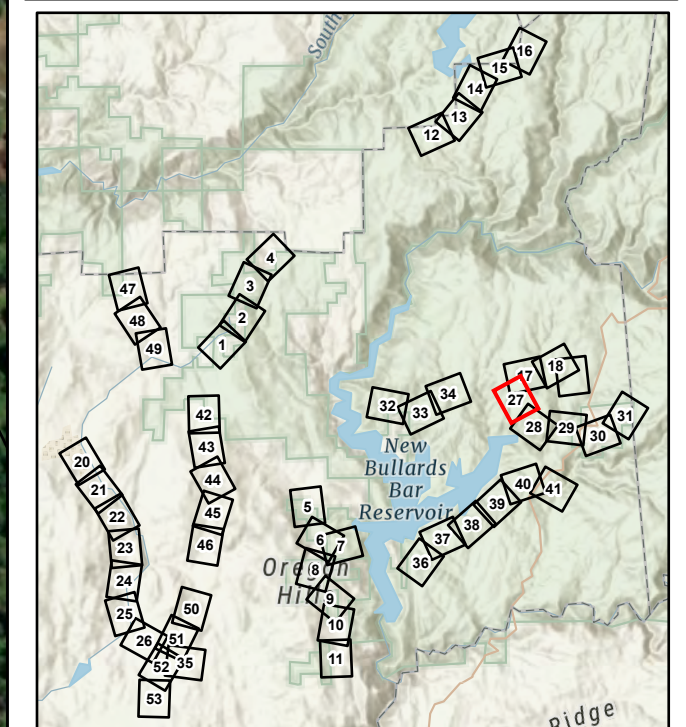
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Map Contents
Study Area



Sources: Yuba County, USFWS, Esri



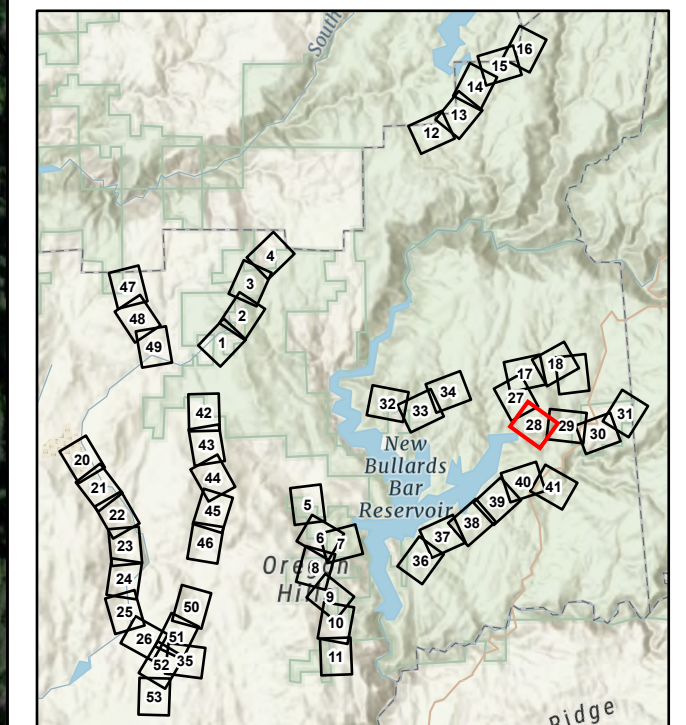
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

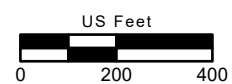
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



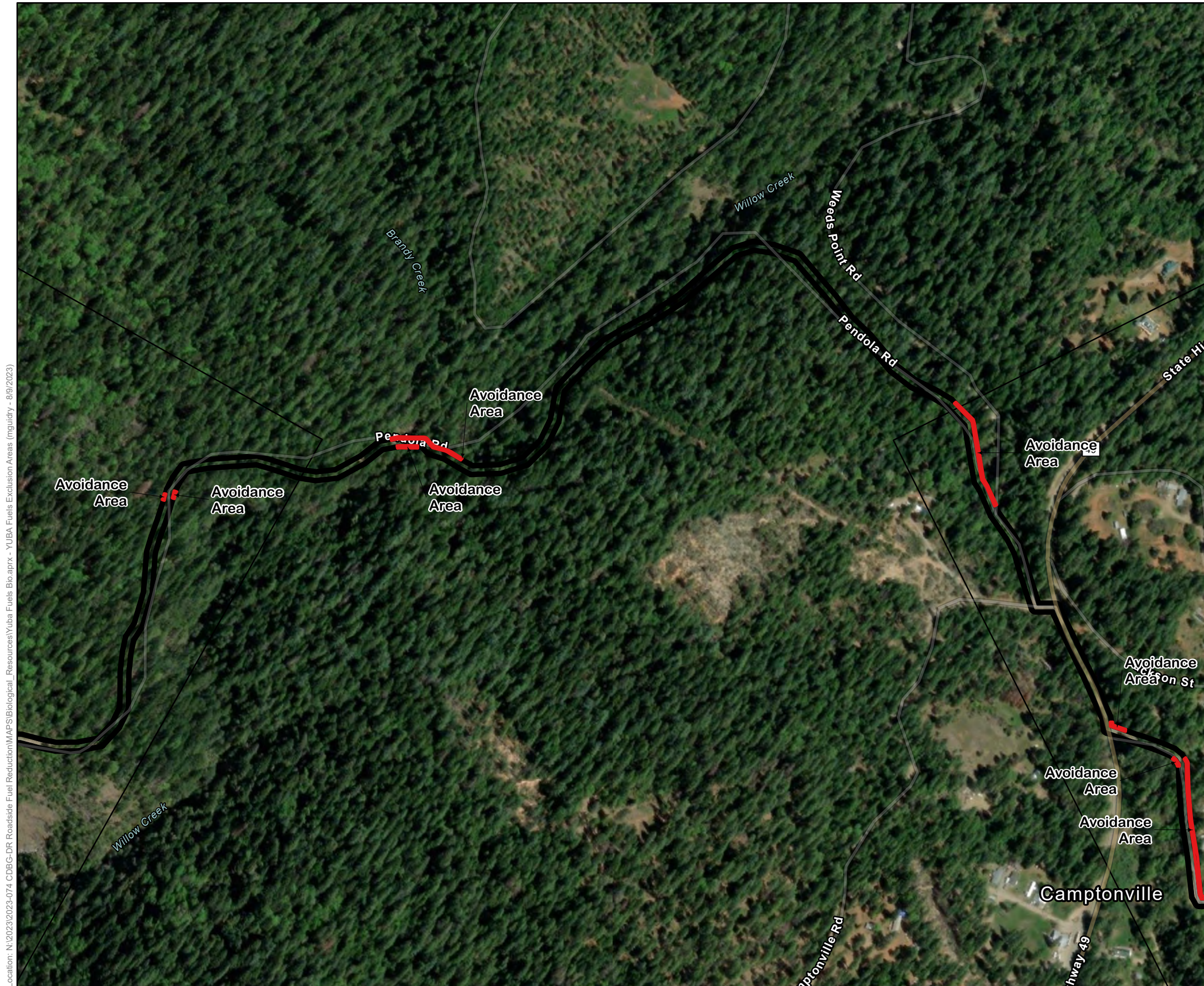
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2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)

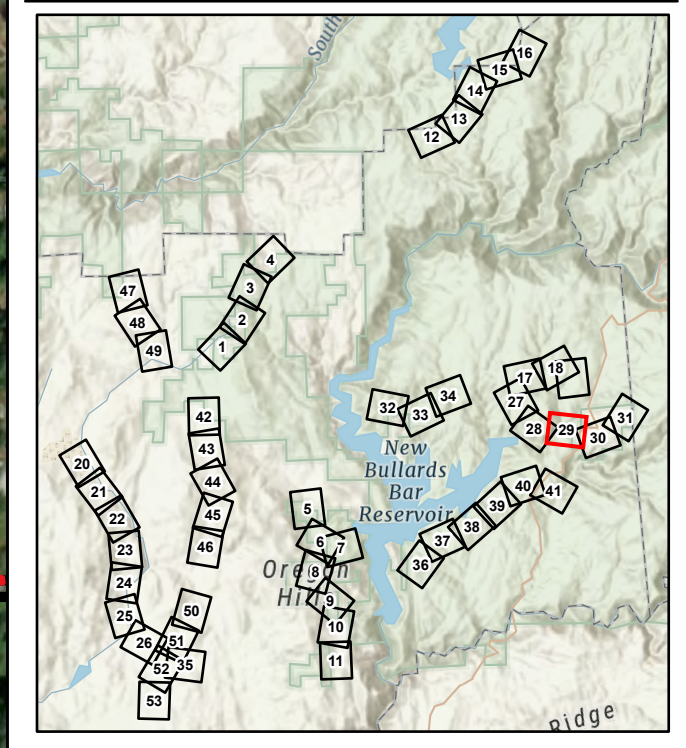


Map Contents

 Study Area

 Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri

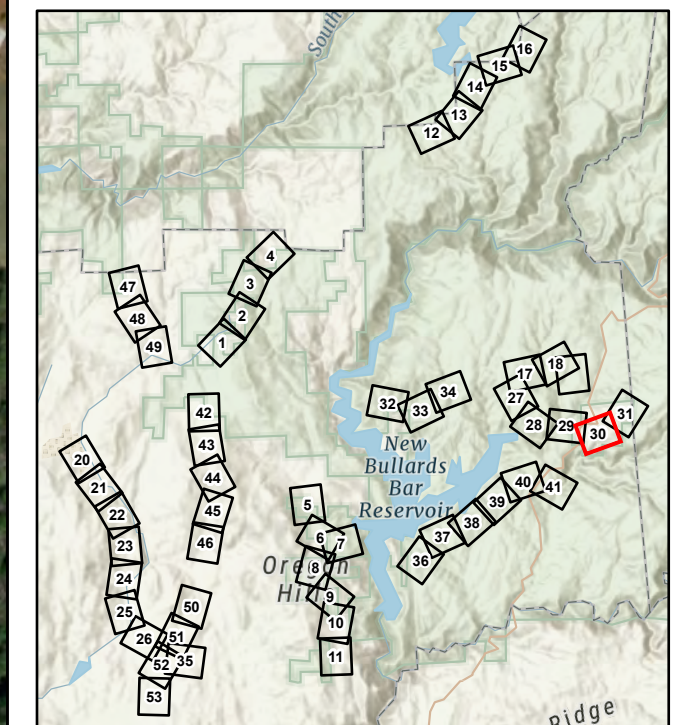


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- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



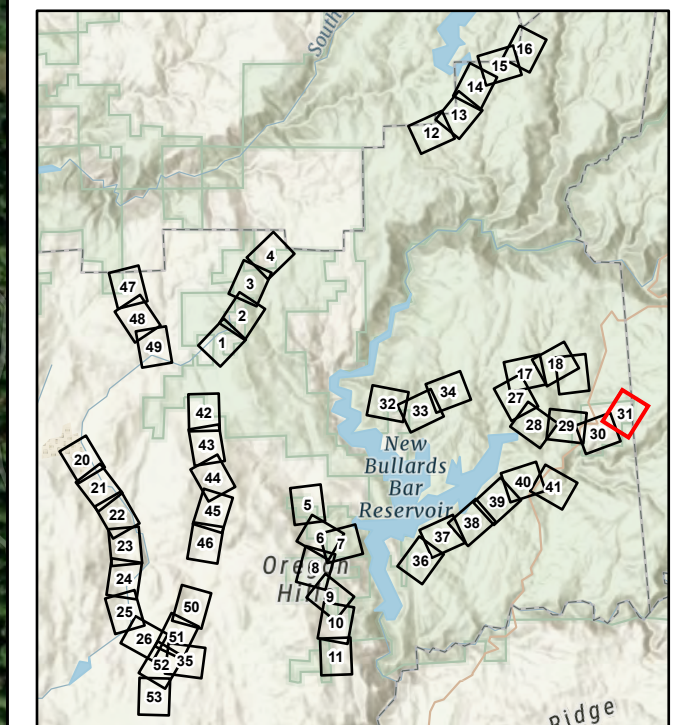
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Map Contents

- Study Area
- Aquatic Resource Avoidance Area

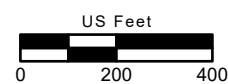
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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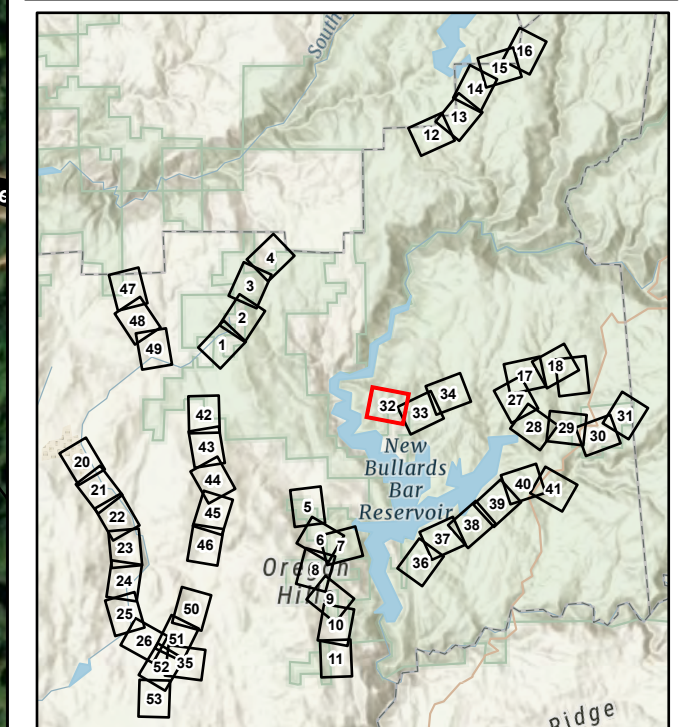
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



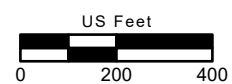
Map Contents
 Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

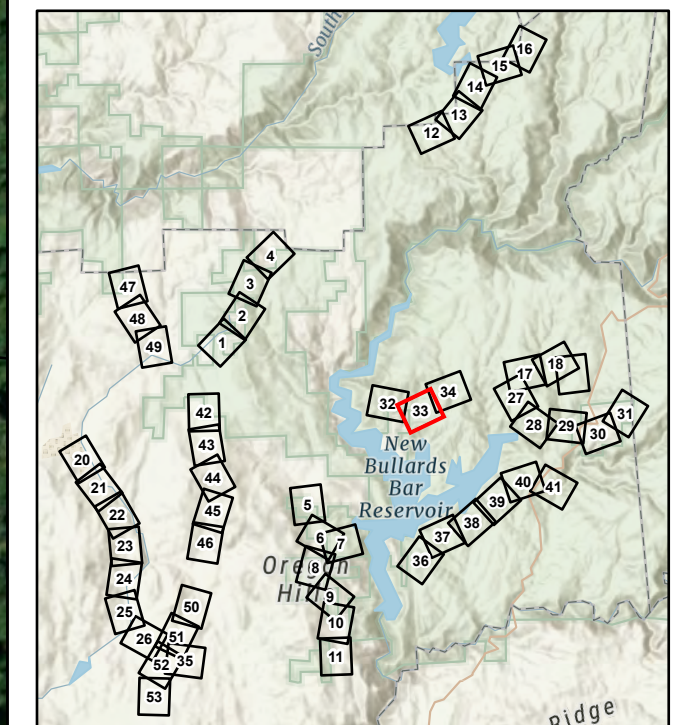
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Map Contents


- Study Area
- Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri

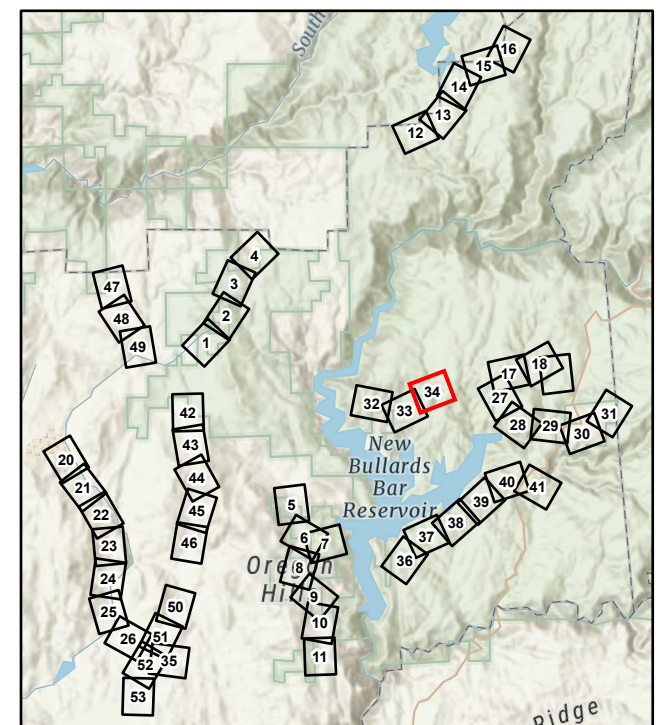


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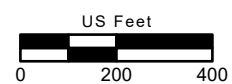
Map Contents
 Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Appendix D. Aquatic Resource Avoidance
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2023-074 CDBG-DR Roadside Fuel Reduction

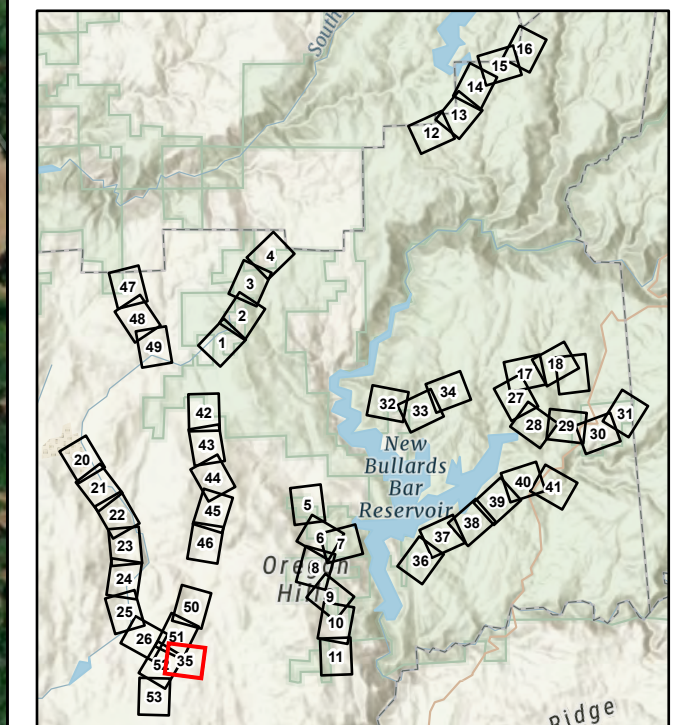
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

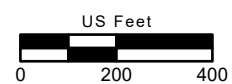
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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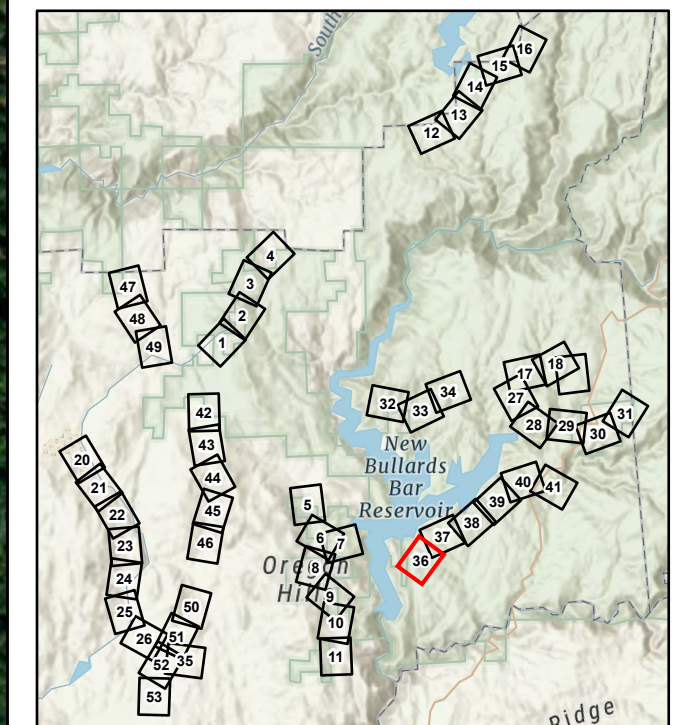
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

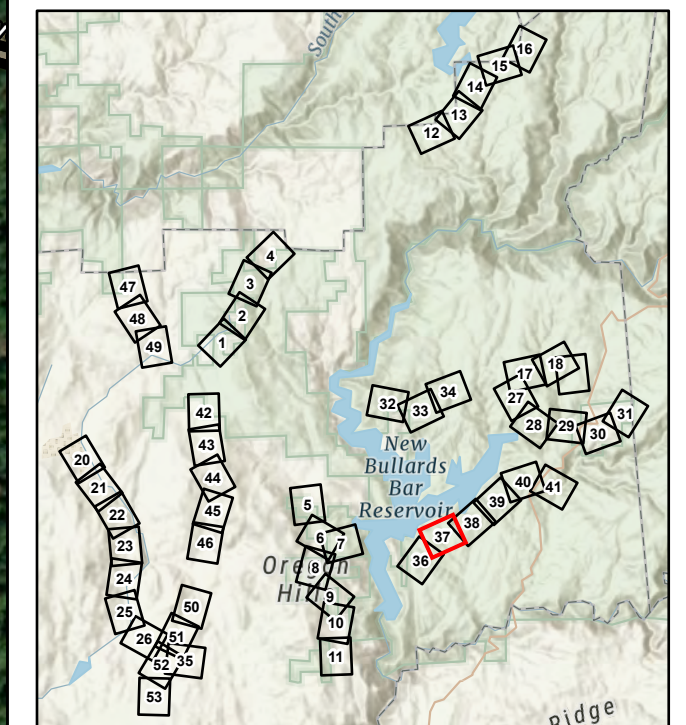


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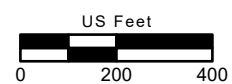
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Appendix D. Aquatic Resource Avoidance
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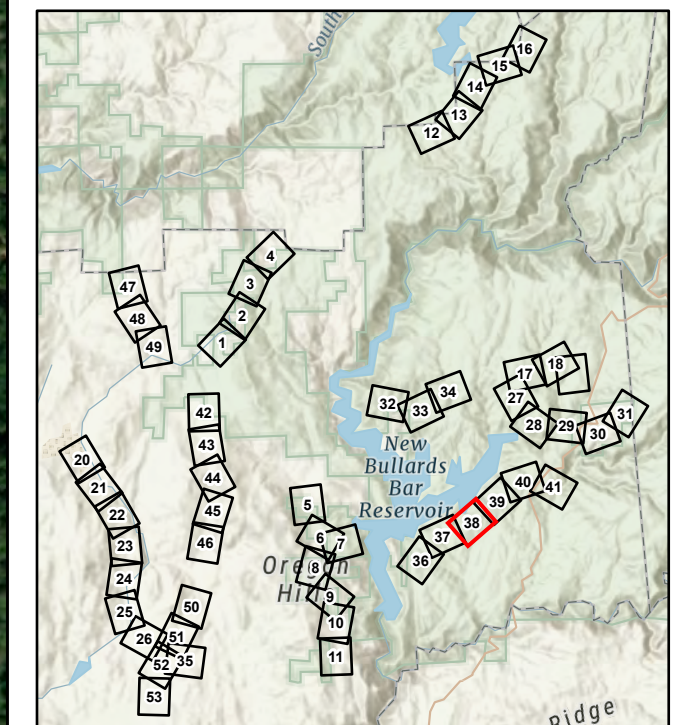
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

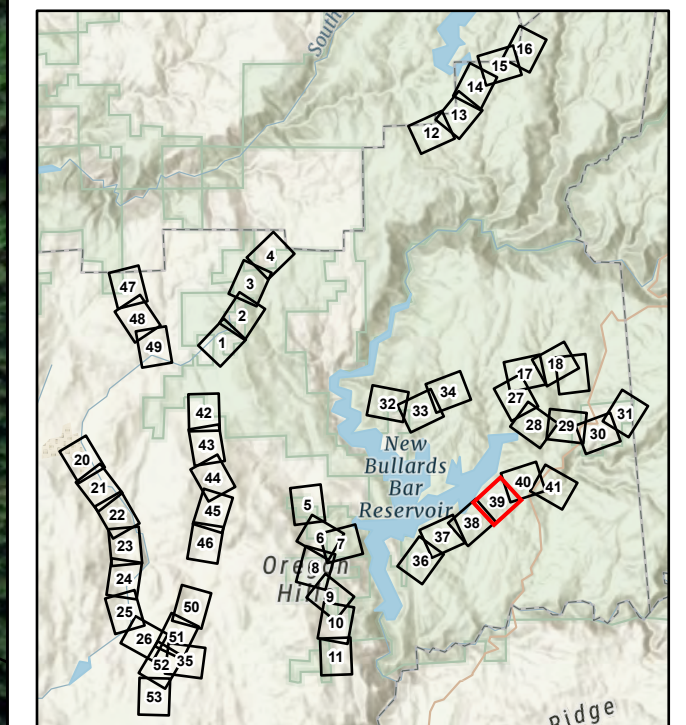


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Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

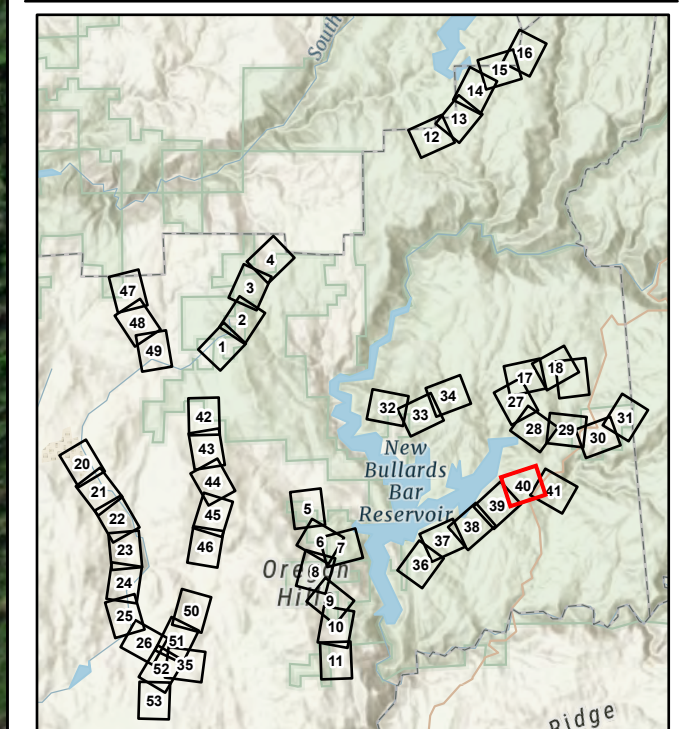


Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)




Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

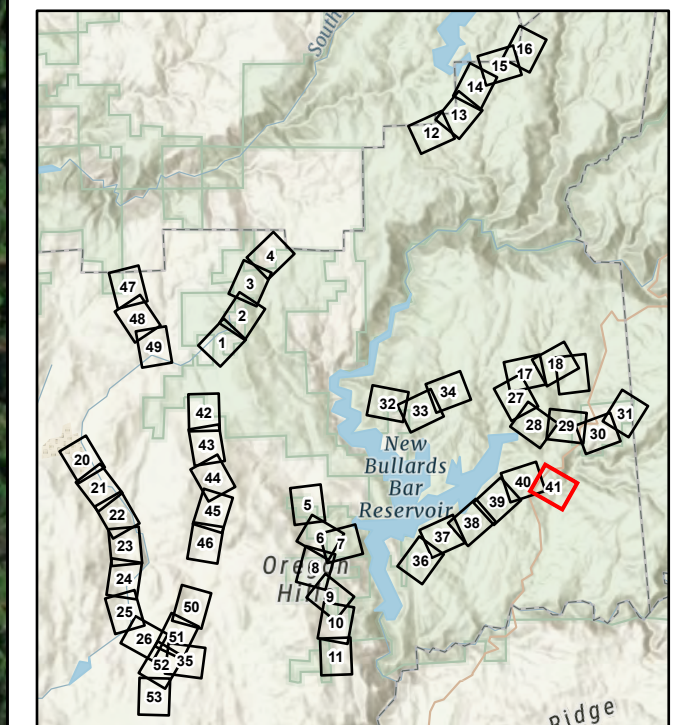


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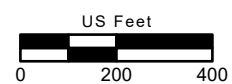
Map Contents
 Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

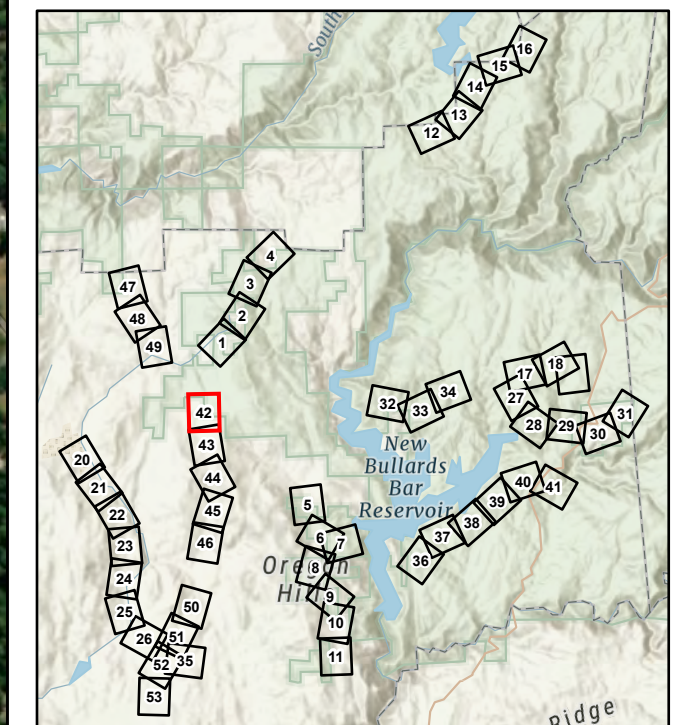
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri

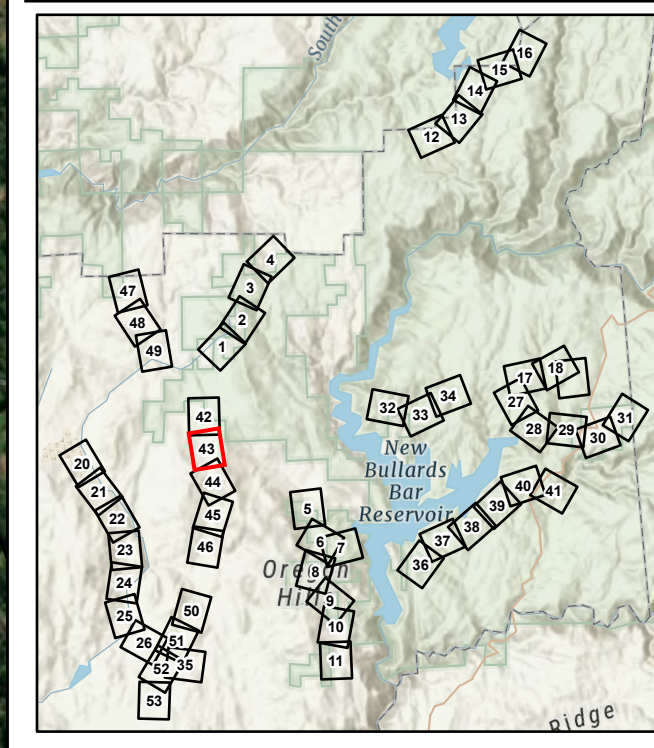


Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



- Map Contents**
- Study Area
 - California Red Legged Frog Critical Habitat
 - Aquatic Resource Avoidance Area
 - Culvert Location

Sources: Yuba County, USFWS, Esri

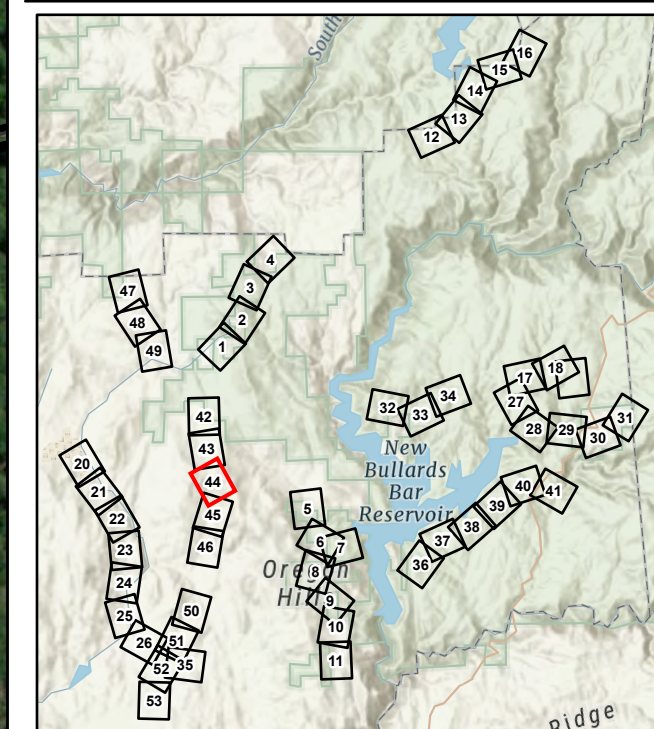


Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



- Map Contents**
- Study Area
 - California Red Legged Frog Critical Habitat
 - Aquatic Resource Avoidance Area
 - Culvert Location

Sources: Yuba County, USFWS, Esri



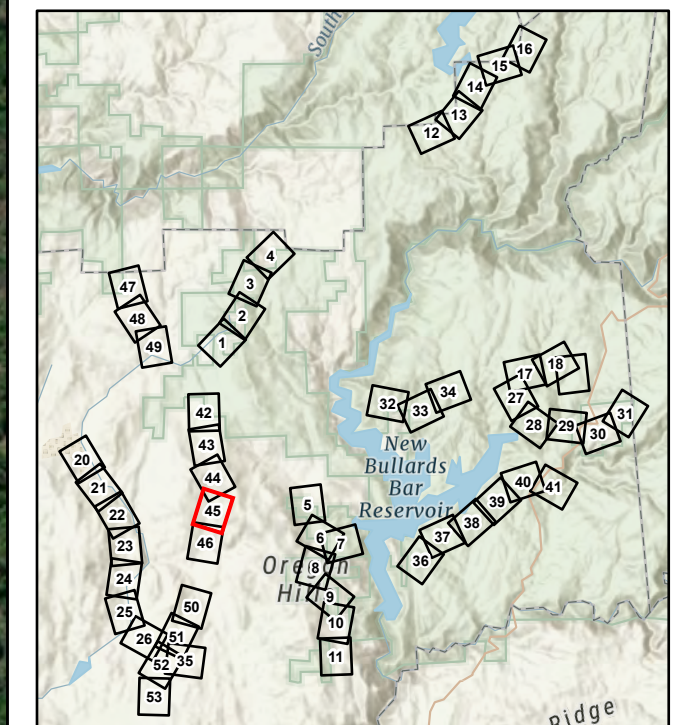
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Map Contents

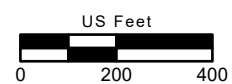
- Study Area
- Aquatic Resource Avoidance Area
- Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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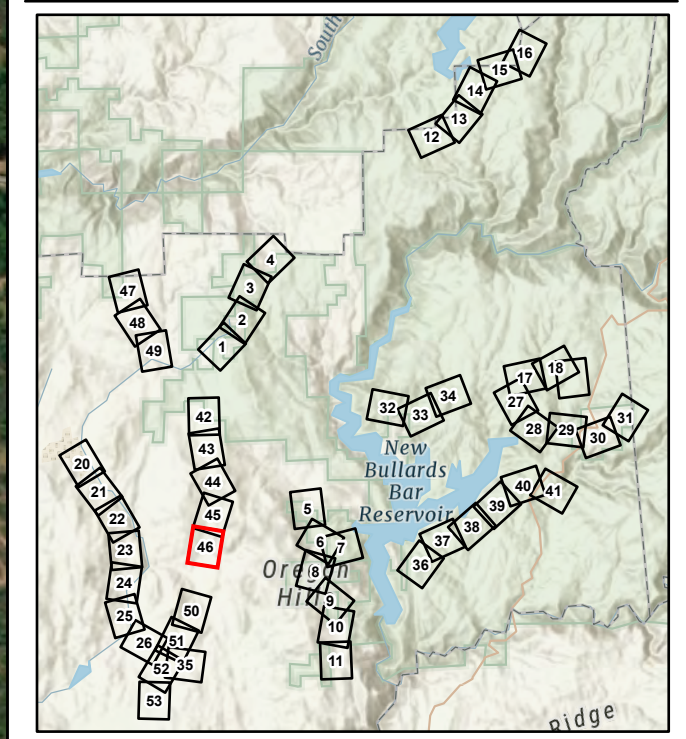
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)



- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area
 - Culvert Location

Sources: Yuba County, USFWS, Esri

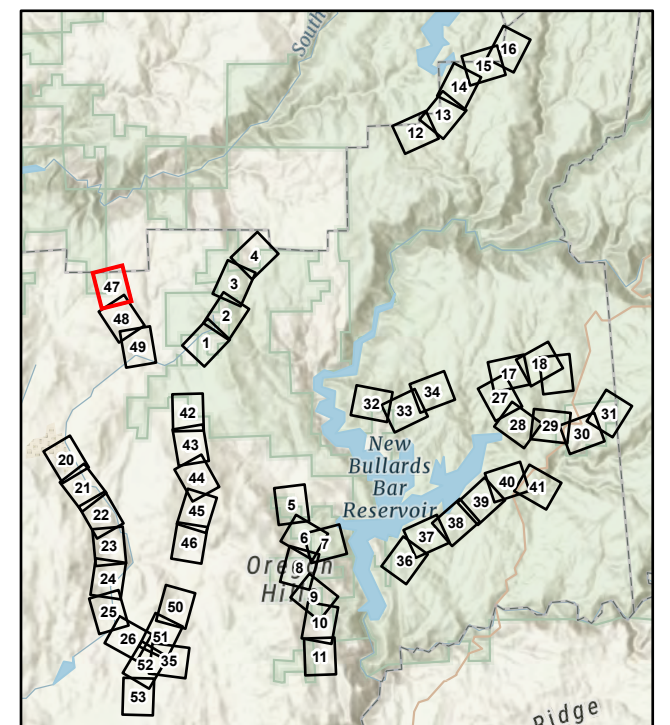


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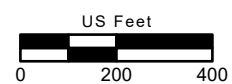
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

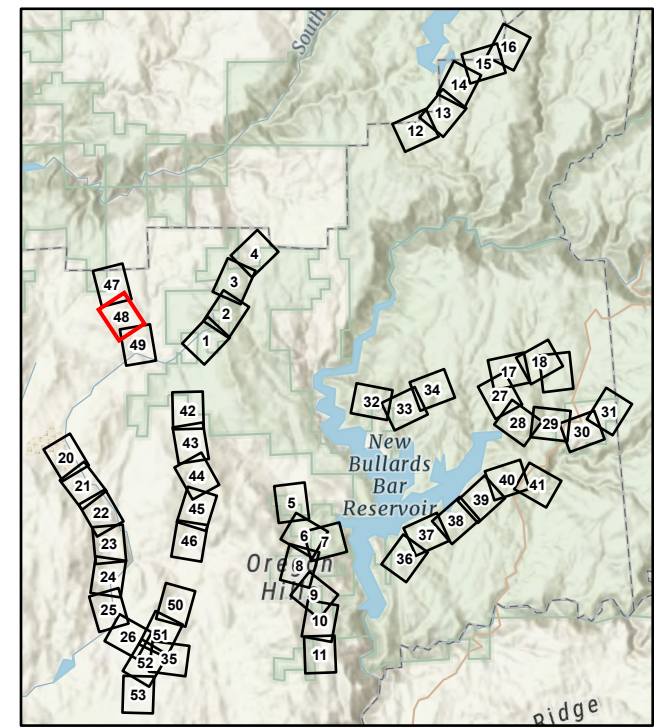


Map Contents

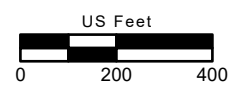
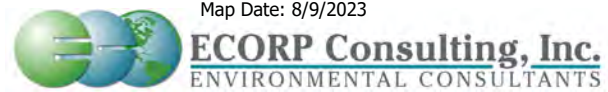
Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



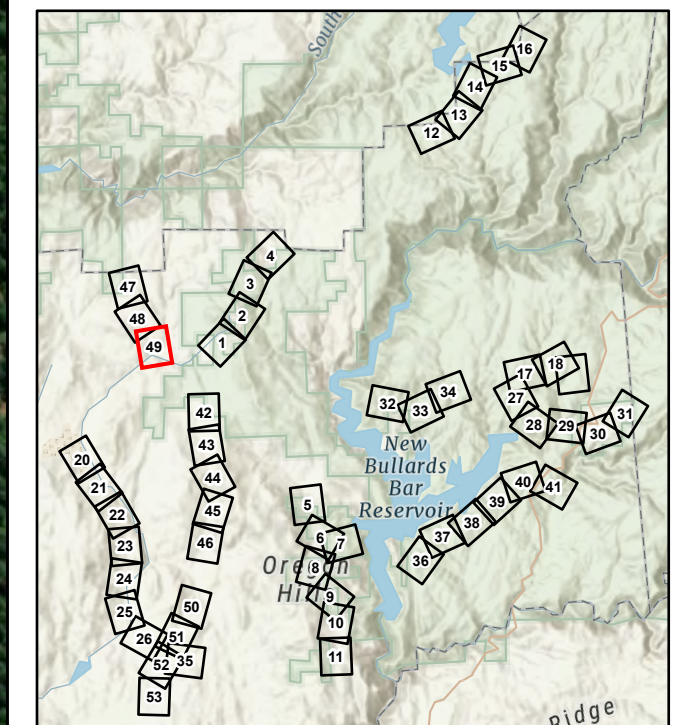
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Map Contents

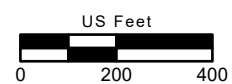
- Study Area
- Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

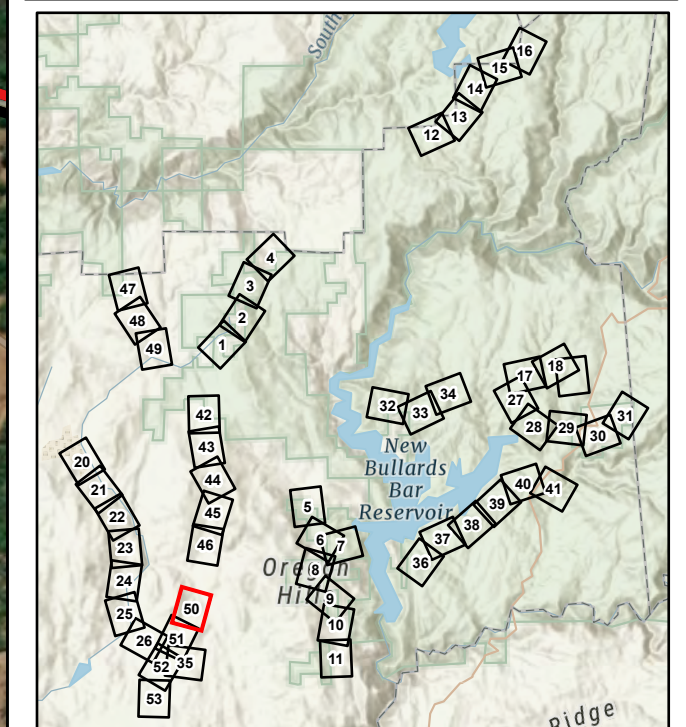
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Map Contents

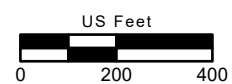
-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

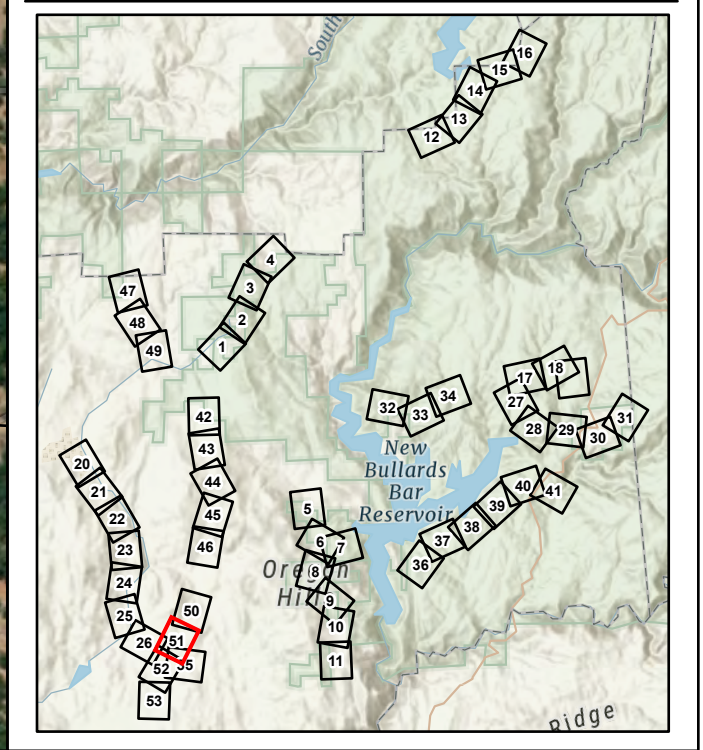


Map Contents

Study Area

Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



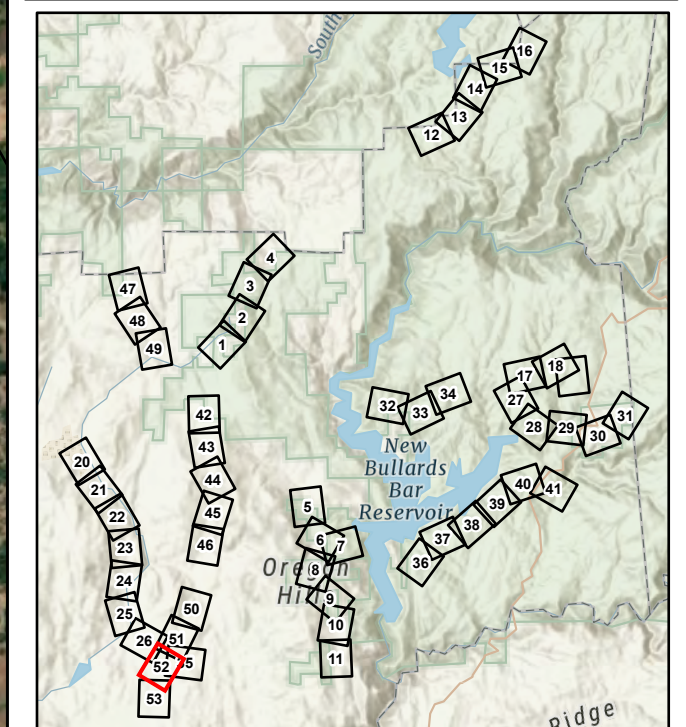
Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAP\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents

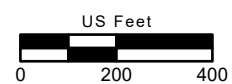
-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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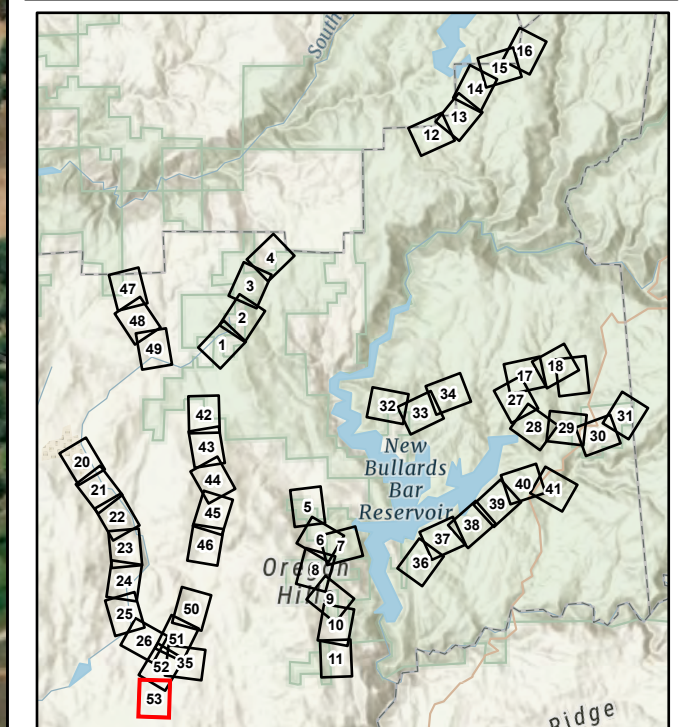
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



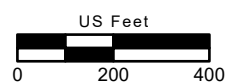
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

Attachment C

Noise Impact Assessment

Noise Impact Assessment

Roadside Fuel Reduction Project Yuba County, California

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August 2023

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ATTACHMENTS

Attachment A – Federal Highway Administration Roadway Construction Noise Model Outputs – Project Implementation

LIST OF ACRONYMS AND ABBREVIATIONS

| Term | Description |
|------------------|---|
| ANSI | American National Standards Institute |
| Caltrans | California Department of Transportation |
| CNEL | Community Noise Equivalent Level |
| County | Yuba County |
| dB | Decibel |
| dBA | Decibel is A-weighted |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| Hz | Hertz |
| L _{dn} | Day-night average sound level |
| L _{eq} | Measure of ambient noise |
| L _{max} | The maximum A-weighted noise level during the measurement period. |

LIST OF ACRONYMS AND ABBREVIATIONS

| Term | Description |
|------------------|---|
| L _{min} | The minimum A-weighted noise level during the measurement period. |
| NIOSH | National Institute for Occupational Safety and Health |
| OPR | Office of Planning and Research |
| OSHA | Federal Occupational Safety and Health Administration |
| PPV | Peak particle velocity |
| Project | Roadside Fuels Reduction Project |
| RMS | Root mean square |
| STC | Sound Transmission Class |
| VdB | Vibration Velocity Level |

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the Roadside Fuel Reduction Project, which proposes roadside fuel reduction stretching approximately 45.7 miles throughout northern Yuba County (County) in California. This assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the Yuba County General Plan Noise Element and the National Institute for Occupational Safety and Health (NIOSH) regulations. The purpose of this report is to estimate Project-generated noise levels and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The Project Site areas are located throughout Yuba County along several roads serving a total of seven at-risk communities. The Proposed Project's implementation would address approximately 45.7 miles of rural roads in the forested portions along the Sierra foothills within the County. The Project Site areas include 18 road segments.

The Proposed Project includes the removal and trimming of fire hazardous brush and tree limbs. All removed vegetation would be chipped and remain on site. The Project aims to create fuel breaks along County roadways, reduce fire spread to structures and/or natural resources, allow access for fire-fighting equipment, and to provide safe evacuation routes for residents. Currently, trees and vegetation encroach up to the edges of the road and the canopies extend over the roads. This may allow fires to cross the roadways easily while also impeding access to at-risk communities. Additionally, the Project would also benefit the potable water systems in the communities of Brownsville and Camptonville and would help protect and preserve access to the airport adjacent to La Porte Road in Brownsville.

2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2-1.

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|--|-------------------|--|
| Jet Fly-over at 300m (1000 ft) | 110 | Rock Band |
| Gas Lawn Mower at 1 m (3 ft) | 100 | |
| Diesel Truck at 15 m (50 ft), at 80 km (50 mph) | 90 | Food Blender at 1 m (3 ft) |
| Noisy Urban Area, Daytime | 80 | Garbage Disposal at 1 m (3 ft) |
| Gas Lawn Mower, 30 m (100 ft) | 70 | Vacuum Cleaner at 3 m (10 ft) |
| Commercial Area | | Normal Speech at 1 m (3 ft) |
| Heavy Traffic at 90 m (300 ft) | 60 | Large Business Office |
| Quiet Urban Daytime | 50 | Dishwasher Next Room |
| Quiet Urban Nighttime | 40 | Theater, Large Conference Room (Background) |
| Quiet Suburban Nighttime | | Library |
| Quiet Rural Nighttime | 30 | Bedroom at Night, Concert Hall (Background) |
| | 20 | Broadcast/Recording Studio |
| | 10 | |
| Lowest Threshold of Human Hearing | 0 | Lowest Threshold of Human Hearing |

Source: California Department of Transportation (Caltrans) 2020a



Figure 2-1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (FHWA 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately three dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (California Department of Transportation [Caltrans] 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typically residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations.) In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn} /CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Table 2-1 provides a list of other common acoustical descriptors.

Table 2-1. Common Acoustical Descriptors

| Descriptor | Definition |
|---|--|
| Decibel, dB | A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20. |
| Sound Pressure Level | Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter. |
| Frequency, Hz | The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz. |
| A-Weighted Sound Level, dBA | The sound pressure level in decibels as measured on a sound level meter using the A weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. |
| Equivalent Noise Level, L_{eq} | The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night. |
| L_{max} , L_{min} | The maximum and minimum A-weighted noise level during the measurement period. |
| L_{01} , L_{10} , L_{50} , L_{90} | The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period. |
| Day/Night Noise Level, L_{dn} or DNL | A 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} . |
| Community Noise Equivalent Level, CNEL | A 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL. |
| Ambient Noise Level | The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location. |
| Decibel, dB | A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20. |

The A weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method

for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ± 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ± 1 to 2 dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

2.1.5.1 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.5.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

Table 2-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

| Peak Particle Velocity (inches/second) | Approximate Vibration Velocity Level (VdB) | Human Reaction | Effect on Buildings |
|---|---|---|--|
| 0.006–0.019 | 64–74 | Range of threshold of perception | Vibrations unlikely to cause damage of any type |
| 0.08 | 87 | Vibrations readily perceptible | Threshold at which there is a risk of architectural damage to extremely fragile buildings, historic buildings, ruins and ancient monuments |
| 0.1 | 92 | Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities | Threshold at which there is a risk of architectural damage to fragile buildings. Virtually no risk of architectural damage to normal buildings |
| 0.25 | 94 | Vibrations may begin to annoy people in buildings | Threshold at which there is a risk of architectural damage to historic and some old buildings |
| 0.3 | 96 | Vibrations may begin to feel severe to people in buildings | Threshold at which there is a risk of architectural damage to older residential structures |
| 0.5 | 103 | Vibrations considered unpleasant by people subjected to continuous vibrations | Threshold at which there is a risk of architectural damage to new residential structures and Modern industrial/commercial buildings |

Source: Caltrans 2020b

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The Project has several sites throughout the County where Project implementation would occur. At these various sites, there are several existing noise sensitive receptors in close proximity to where Project activities would occur. The closest noise sensitive residential receptors to roadways proposed for Project fuel reduction are between 37-50 feet distant.

3.1.1 Existing Ambient Noise Environment

The Project implementation would occur at various sites throughout Yuba County. The sites are along several rural roadways, and the surrounding areas to these sites are impacted by noise sources typical to the rural areas of the County. According to the Yuba County General Plan, the County is mainly affected by transportation noise, but the ambient noise levels throughout the county are also influenced by mining operations, manufacturing operations, agricultural operations, the Marysville Raceway Park, Ostrom Road Landfill, Sleep Train Amphitheater, a concrete plant, Beale Air Force Base, and the County's airports. Within the areas proposed for vegetation removal along roadways, the most common noise source is motor vehicle traffic.

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn} , daytime L_{eq} , and nighttime L_{eq} , based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 3-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "95% prediction interval [confidence interval] is on the order of +/- 10 dB." The Project's sites where activity would occur would likely be considered ambient noise Category 5 or 6.

Table 3-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

| Category | Land Use | Description | People per Square Mile | Typical L_{dn} | Daytime L_{eq} | Nighttime L_{eq} |
|----------|--|--|------------------------|------------------|------------------|--------------------|
| 1 | Noisy Commercial & Industrial Areas and Very Noisy Residential Areas | Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate. | 63,840 | 67 dBA | 66 dBA | 58 dBA |
| 2 | Moderate Commercial & Industrial Areas and Noisy Residential Areas | Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense. | 20,000 | 62 dBA | 61 dBA | 54 dBA |
| 3 | Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas | Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category. | 6,384 | 57 dBA | 55 dBA | 49 dBA |
| 4 | Quiet Urban & Normal Suburban Residential Areas | These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3. | 2,000 | 52 dBA | 50 dBA | 44 dBA |
| 5 | Quiet Residential Areas | These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley. | 638 | 47 dBA | 45 dBA | 39 dBA |
| 6 | Very Quiet Sparse Suburban or rural Residential Areas | These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound. | 200 | 42 dBA | 40 dBA | 34 dBA |

Source: The American National Standards Institute (ANSI) 2013

4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.1.2 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

4.1.3 United States Department of Housing and Urban Development

HUD administers federal housing and urban development programs and policies. HUD ensures that the development of communities are safe, healthy, and affordable places to live. In the Code of Federal Regulations, HUD's policies under Title 24, Part 51, Subpart B addresses Noise Abatement and Control. All new construction and development Projects that involve HUD funding are subject to the regulations established in 24 CFR, Part 51 Subpart B. This section sets an operational exterior day-night noise standard of 55 dBA, and an interior noise standard of 45 dBA. Although there are no specific construction noise standards, HUD encourages the use of quieter construction equipment and the use of appropriate noise abatement strategies.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (State of California 2003), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of

the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 Yuba County General Plan

The County of Yuba General Plan Public Health and Safety Element contains policies and recommendations to protect residents and ensure that policymakers make informed land use decisions. More specifically, the Noise and Vibration Chapter highlights the County's main noise sources and promotes policies to preserve the overall wellbeing of the community. The County does not promulgate a numeric threshold pertaining to the noise associated with temporary, construction-type activities. This is due to the fact that construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. The following is a list of noteworthy County policies that are required of activities associated with the Proposed Project:

- **Policy HS10.6.** New developments shall provide all feasible noise mitigation to reduce construction and other short-term noise and vibration impacts as a condition of approval.
- **Policy HS10.7.** New developments shall ensure that construction equipment is properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications.
- **Action HS10.2.** Where development projects or roadway improvement projects could potentially create noise impacts, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. Such analysis shall be the financial responsibility of the applicant and be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. Mitigation strategies shall emphasize site planning and design over other types of mitigation.

4.3.2 Yuba County Municipal Code

The County's regulations with respect to noise are included in the Municipal Code's Chapter 8, *Public Peace and Safety*, of the County Code. Specifically, Section 8.20.310, *Construction of Buildings and Projects*, prohibits anyone within a residential zone, or within a radius of 500 feet there from, from the operation of equipment or to perform any outside construction or repair work on buildings, structures, or projects; or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hours of 10:00 p.m. of one day and 7:00 a.m. of the following day in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance; unless a permit has been duly obtained beforehand from the Community Development and Services Agency's Director of the Planning Department as set forth in Section 8.20.710

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

For purposes of this analysis, the noise associated with the Project's implementation is compared to the allowable hours of construction mandated by the County of Yuba Municipal Section 8.20.310, as well as the NIOSH standard of 85 dBA for more than 8 hours per day, since the activity for the Proposed Project is anticipated to span a typical workday of 8 hours daily. The County does not regulate vibrations associated with construction or operations. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, Project groundborne vibration is evaluated against the Caltrans (2020b) recommended standard of 0.3 inches per second PPV.

5.2 Methodology

This analysis of the existing and future noise environments is based on noise-prediction modeling. In order to estimate the worst-case Project implementation noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted Project implementation noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from the Project's activities to nearby structures and typically applied criteria for structural damage and human annoyance.

5.3 Impact Analysis

5.3.1 Project Implementation Noise

Would the Project Result in Short-Term Implementation-Generated Noise in Excess of Standards?

Onsite Noise

The noise associated with the Proposed Project's implementation would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of chipping and chain sawing activities as well as construction vehicle traffic on area roadways. Noise associated with clearing and maintaining vegetation typically occurs intermittently and varies depending on the nature of the site. Noise generated by the chipper and chainsaw equipment can reach high levels. Typical operating cycles for this type of equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of tree trimmings or the movement of mulchers). During the Project's implementation, exterior noise levels could negatively affect sensitive land uses in the vicinity of Project implementation.

There are several existing noise sensitive receptors in close proximity to the areas where the Project's activities would occur. As previously mentioned, construction activities and the operation of equipment are prohibited between 10:00 p.m. to 7:00 a.m. when construction is conducted in proximity to residential uses, according to the County's Municipal Code Section 8.20.310. The Project is required to adhere to the County Municipal Code.

To estimate the Project's worst-case onsite noise levels that may occur at the nearest noise-sensitive receptors, the construction equipment noise levels were calculated using the Roadway Noise Construction Model. Further, in order to evaluate the potential health-related effects (physical damage to the ear, psychological effects) from the Project's noise, the calculated noise levels are compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by NIOSH. A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

It is acknowledged that the Project's implementation would occur along several roads throughout the County. Consequently, noise levels as a result of the Project's activities are evaluated based on proximity to the nearest sensitive receptor. The closest noise sensitive residential receptors are between 37-50 feet distant from the roadways where noise would be generated due to Project activity. To provide a conservative estimation, the Project's noise levels were modeled from a distance of 37 feet. Hence, the noise level modeling is considered a worst-case scenario, as the other sensitive receptors are located farther away from the Project's roadside activities, and who may experience lower noise levels due to the natural attenuation of sound decibels with distance. Furthermore, it is noted that as there are variations in the overgrowth of roadside vegetation, some portions of the roadways may not require vegetation removal or trimming. As such, the closest sensitive receptor may experience reduced noise levels if the closest roadway does not require trimming and vegetation removal.

The anticipated short-term construction noise levels generated for the necessary equipment for each phase of construction are presented in Table 5-1.

Table 5-1. Project Implementation Average (dBA) Noise Levels at Nearest Receptors

| Construction Phase | Estimated Exterior Construction Noise Level at Nearest Sensitive Receptor (dBA L_{eq}) | Construction Noise Standards (dBA L_{eq}) | Exceeds Standards? |
|---------------------------|--|---|---------------------------|
| Project Implementation | 82.4 | 85 | No |

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment A for Model Data Outputs.

Notes: Construction equipment used during construction derived from the Project Description. The amount of equipment associated with the Project was not known at the time of modeling estimations. As such, one chainsaw and one chipper were modeled. The Proposed Project also requires manual hand trimmers, but these will not contribute to the noise levels of the Project's activities. Noise levels were modeled at a conservative distance of 37 feet; however, all other noise sensitive receptors would be further from the Project's activities, and thus would experience lower noise levels than modeled above.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 5-1, the Project's implementation activities would not exceed the 85 dBA NIOSH construction noise threshold at the closest nearby noise-sensitive receptors. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction as well as at the point closest to residences.

5.3.2 Project Operational Noise

Because the Proposed Project involves the removal and trimming of fire hazardous brush and tree limbs there will be no operational component of this Project. Upon completion of the Project, it would not attract new stationary or mobile sources of noise beyond what is currently experienced. The Proposed Project would have no noise impact once Project implementation is complete.

5.3.3 Project Groundborne Vibration

Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance, and it is acknowledged that the Project's chipping activities would occur at the various Project Sites. However, the chipping activities would not be concentrated at the point

closest to sensitive receptors. Groundborne vibration levels associated with standard construction equipment at 25 feet distant are summarized in Table 5-4.

| Table 5-4. Representative Vibration Source Levels for Construction Equipment | |
|---|--|
| Equipment Type | Peak Particle Velocity at 25 Feet (inches per second) |
| Vibratory Roller | 0.210 |
| Impact Pile Driver | 0.170 |
| Large Bulldozer | 0.089 |
| Caisson Drilling | 0.089 |
| Hoe Ram | 0.089 |
| Loaded Trucks | 0.076 |
| Jackhammer | 0.035 |
| Small Bulldozer/Tractor | 0.003 |

Source: FTA 2018; Caltrans 2020b

The County does not have a numeric threshold associated with construction vibrations. However, a discussion of the Project's vibrational impacts are included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.3 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. The nearest structure of concern to the Project's various implementation sites are residences along the areas where Project implementation will occur. The closest residence along the roadways that would require Project activities is located 37 feet distant.

Based on the representative vibration levels presented for various construction equipment types in Table 5-4 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}]$$

Table 5-5 presents the expected Project related vibration levels at a distance of 37 feet.

Table 5-5. Onsite Construction Vibration Levels at 37 Feet

| Receiver PPV Levels (in/sec) ¹ | | | | | | Peak Vibration | Threshold | Exceed Threshold |
|---|---------------------|--|------------------|-----------------|--------------------|-------------------|-----------|---------------------|
| Impact Pile Driver | Vibratory Roller | Large Bulldozer, Caisson Drilling, & Hoe Ram | Loaded Trucks | Jack- hammer | Small Bulldozer | | | |
| 0.094 | 0.117 | 0.049 | 0.042 | 0.019 | 0.002 | 0.117 | 0.3 | No |

Notes: ¹Based on the Vibration Source Levels of Construction Equipment included on Table 5-3 (FTA 2018). Distance to the nearest structure of concern is approximately 37 feet.

As shown in Table 5-5, vibration as a result of onsite construction activities on the Project Site would not exceed 0.3 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold.

Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

There would be no operational component of the Project. Therefore, there would be no use of any stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result in groundborne vibration impacts during operations.

5.3.4 Excess Airport Noise

Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project would occur along various roadways throughout the County. Brownsville Airpark is the closest airport to the segments of roadway that would experience maintenance on as a part of the Project. According to AirNav, the Brownsville Airpark accommodates approximately 27 flights per week. Furthermore, the duration of the Project's activities in close proximity to the airport would last a matter of a few days before moving on to roadway segments further away from the Brownsville Airpark. Therefore, the Proposed Project would not expose people residing or working on the Project Site to excess airport noise levels.

6.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A - Federal Highway Administration Roadway Construction Noise Model Outputs –
Project Implementation

Federal Highway Administration Roadway Construction Noise Model Outputs – Project Implementation

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/2/2023
Case Description: Project Implementation

Description
Project Implementation

Land Use
Residential

| Description | Impact Device | Usage(%) | Equipment | Actual Lmax (dBA) | Receptor Distance (feet) |
|-------------|------------------|----------|-----------------------|-------------------------|--------------------------------|
| | | | Spec Lmax (dBA) | | |
| Chain Saw | No | 20 | | 83.7 | 37 |
| Excavator | No | 40 | | 80.7 | 37 |

Calculated (dBA)

| Equipment | *Lmax | Leq |
|--------------|-------------|-------------|
| Chain Saw | 86.3 | 79.3 |
| Excavator | 83.3 | 79.3 |
| Total | 86.3 | 82.4 |

*Calculated Lmax is the Loudest value.

Attachment D

Aquatic Resource Avoidance Maps

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)

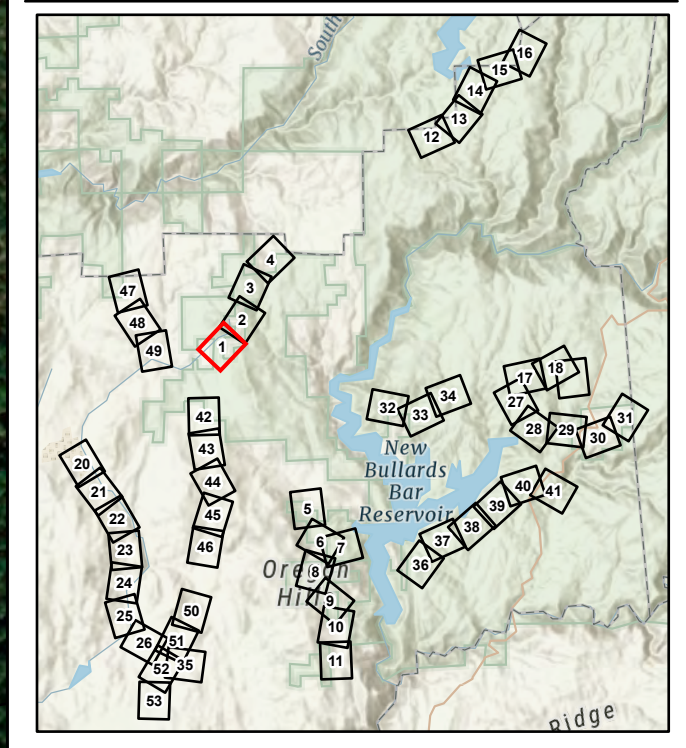


Map Contents

Study Area

Aquatic Resource Avoidance Area


Sources: Yuba County, USFWS, Esri




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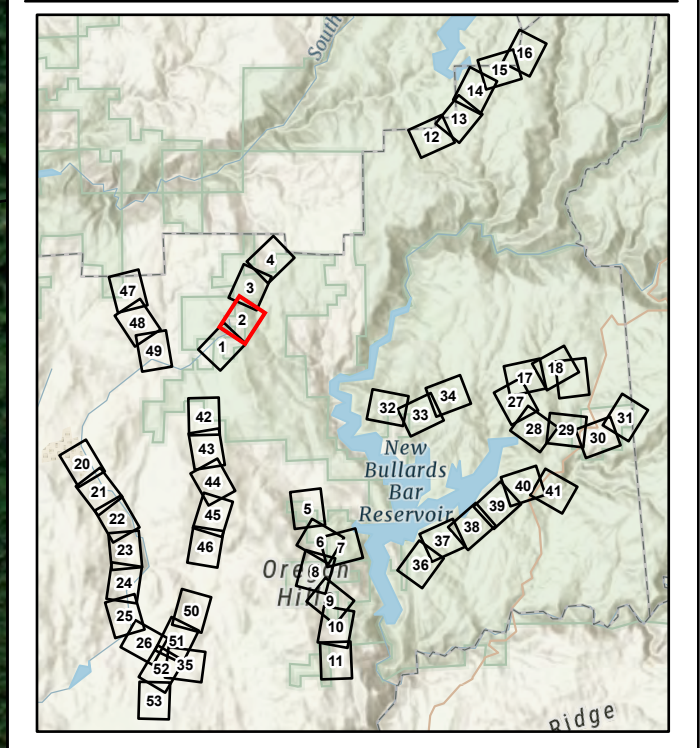


Map Contents

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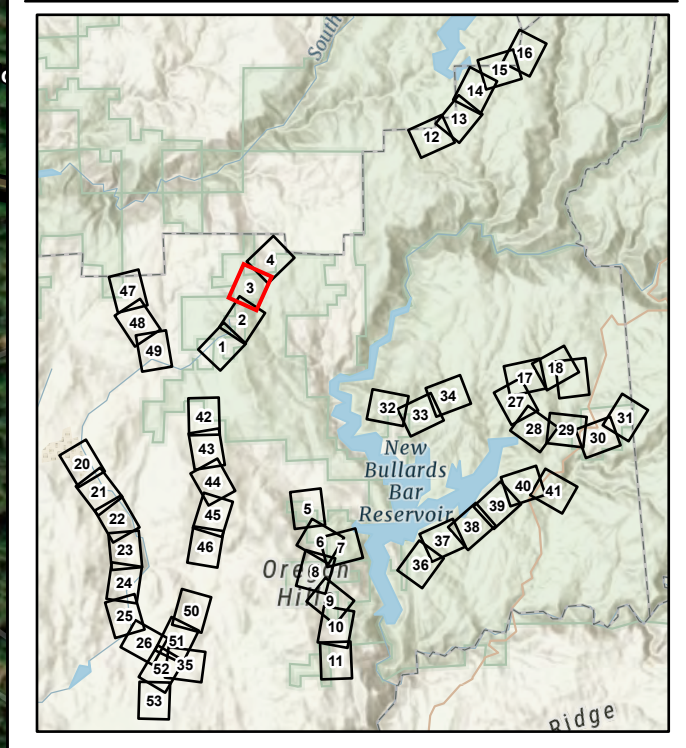


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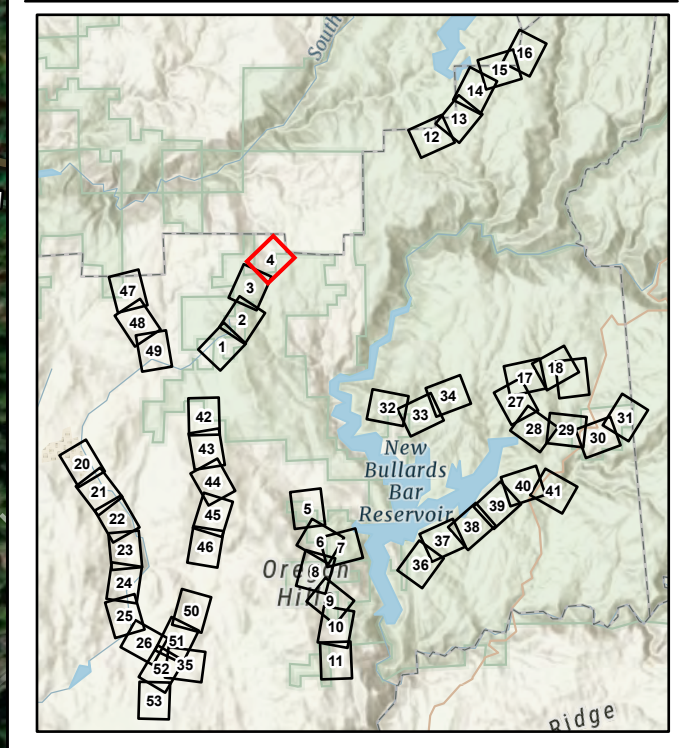


Map Contents

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Sources: Yuba County, USFWS, Esri



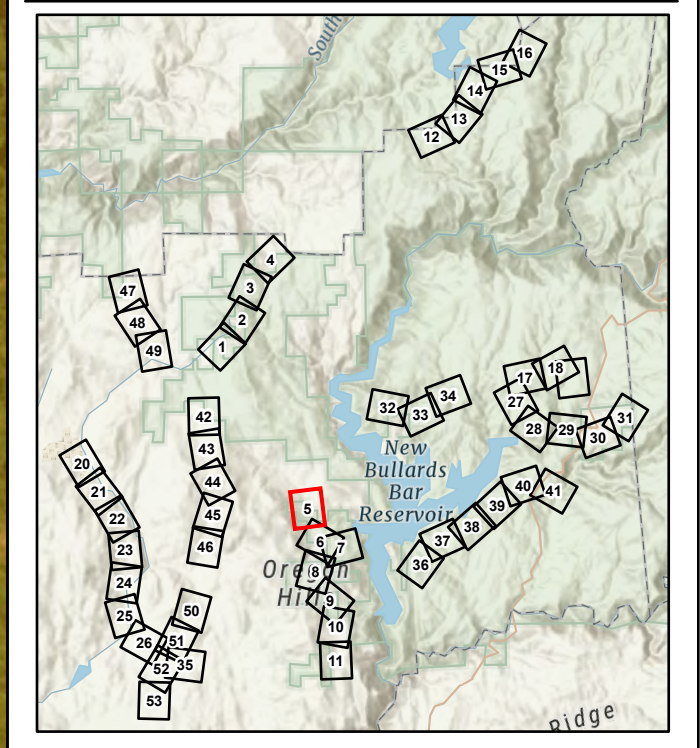
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Map Contents

- Study Area
- California Red Legged Frog Critical Habitat
- Aquatic Resource Avoidance Area
- Culvert Location

Sources: Yuba County, USFWS, Esri

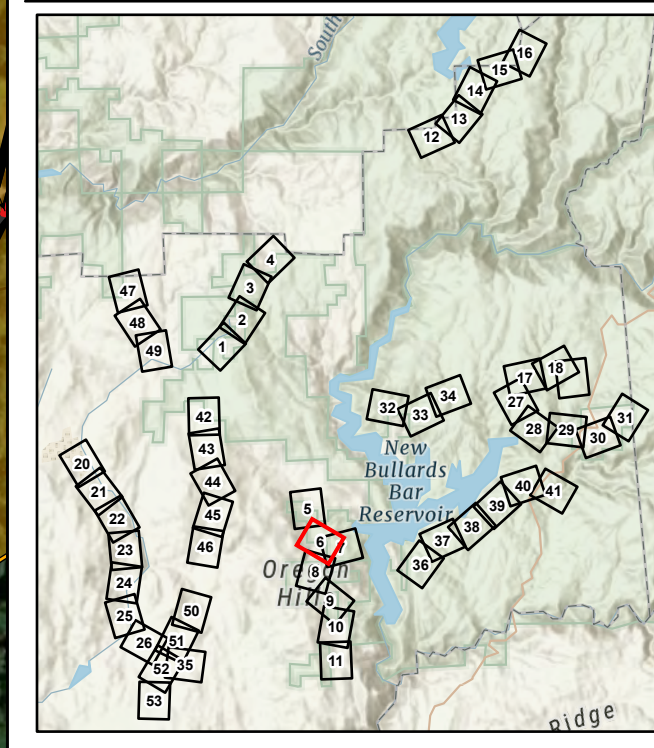


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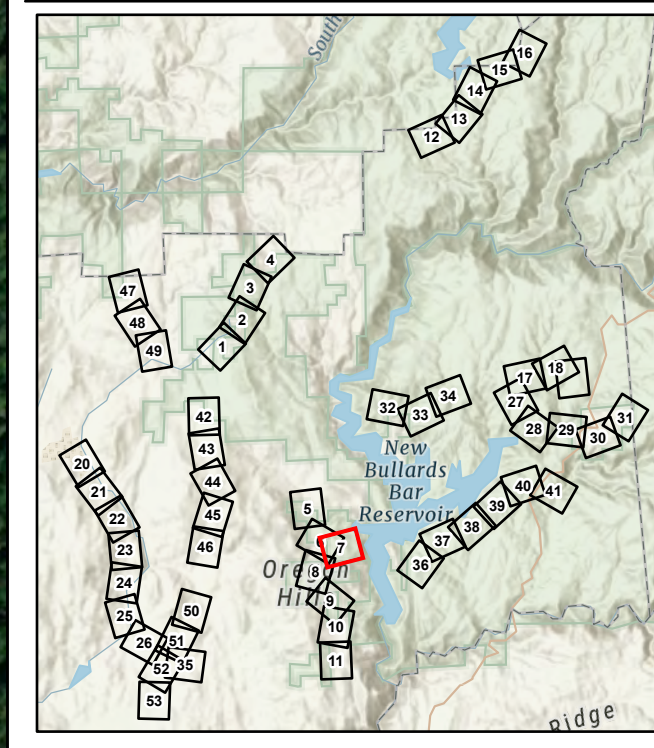


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Map Contents

- Study Area
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Sources: Yuba County, USFWS, Esri

An inset map showing a larger geographic area. It includes a river labeled 'South Fork', a reservoir labeled 'New Bullards Bar Reservoir', and a ridge labeled 'ridge'. Numbered boxes (1-53) are scattered across the map, representing different project areas. Box 8 is highlighted with a red border. The map also shows topographic features like hills and valleys.

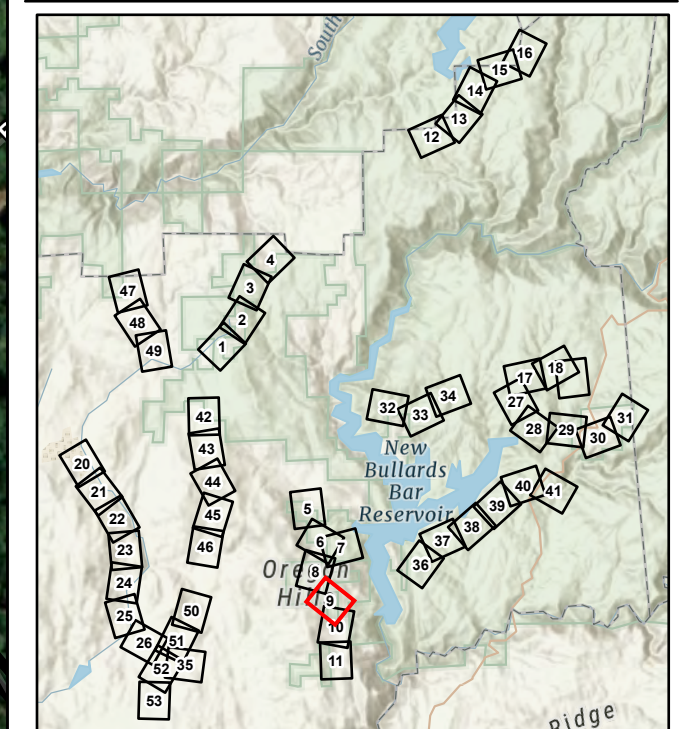


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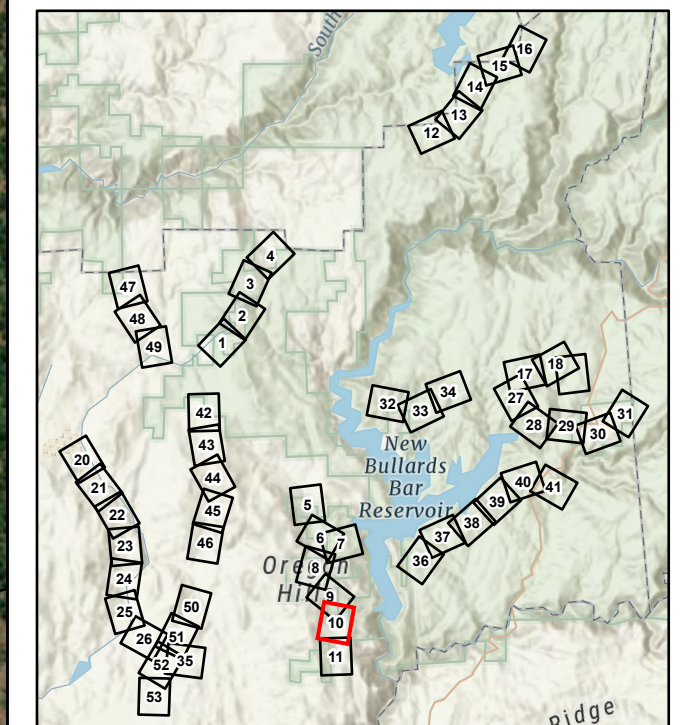
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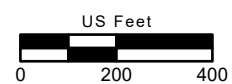
-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

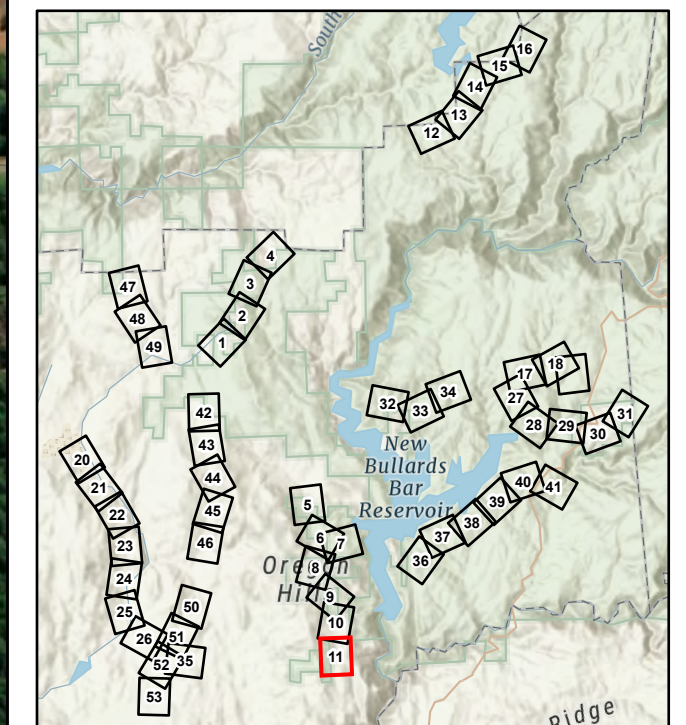
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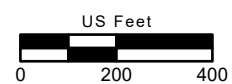
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Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Appendix D. Aquatic Resource Avoidance Sheet 11 of 53

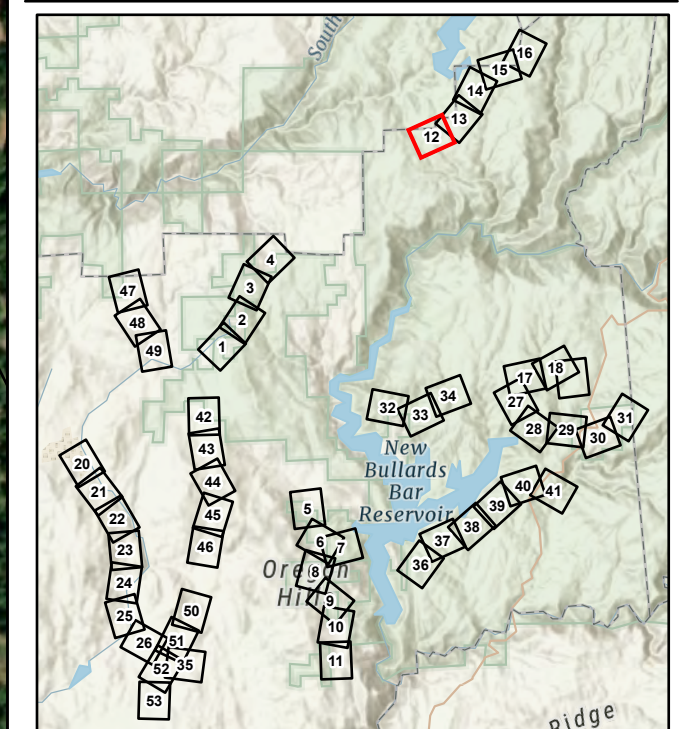
2023-074 CDBG-DR Roadside Fuel Reduction

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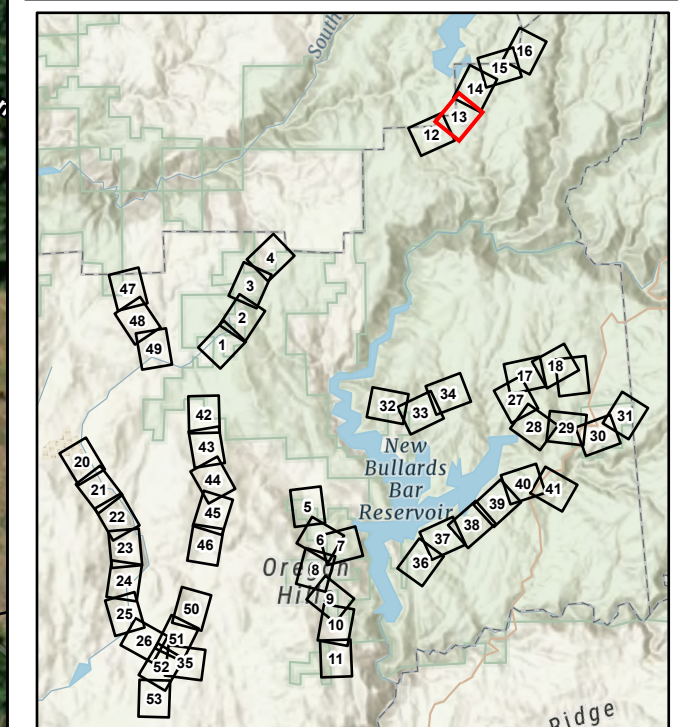


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Map Contents
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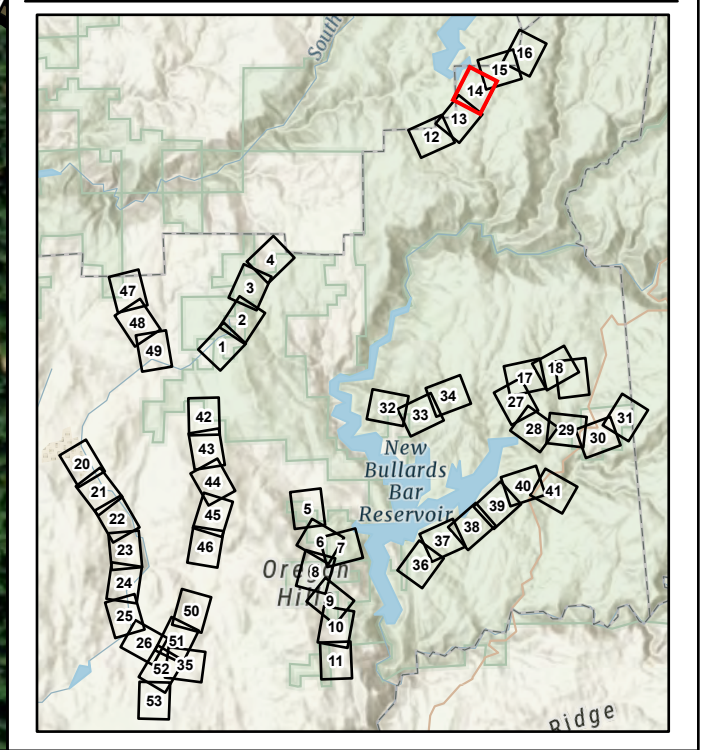




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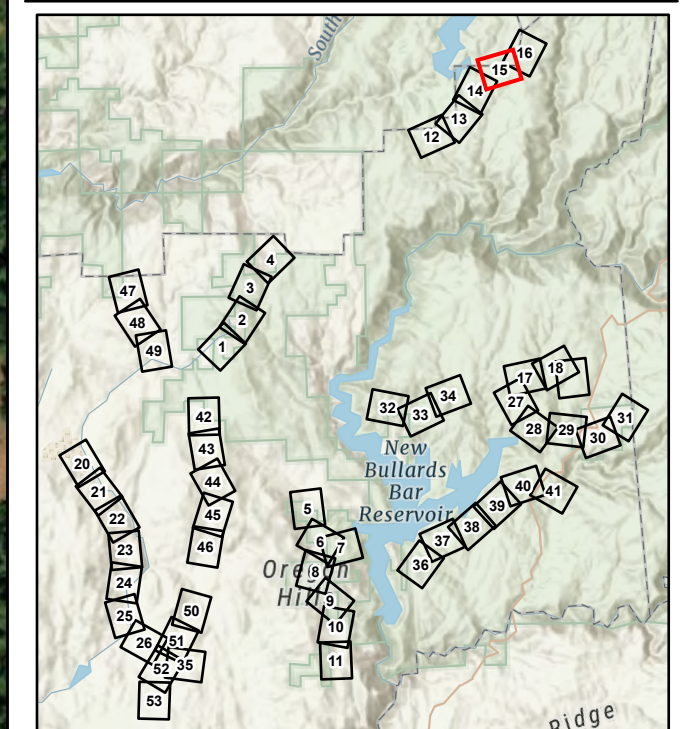
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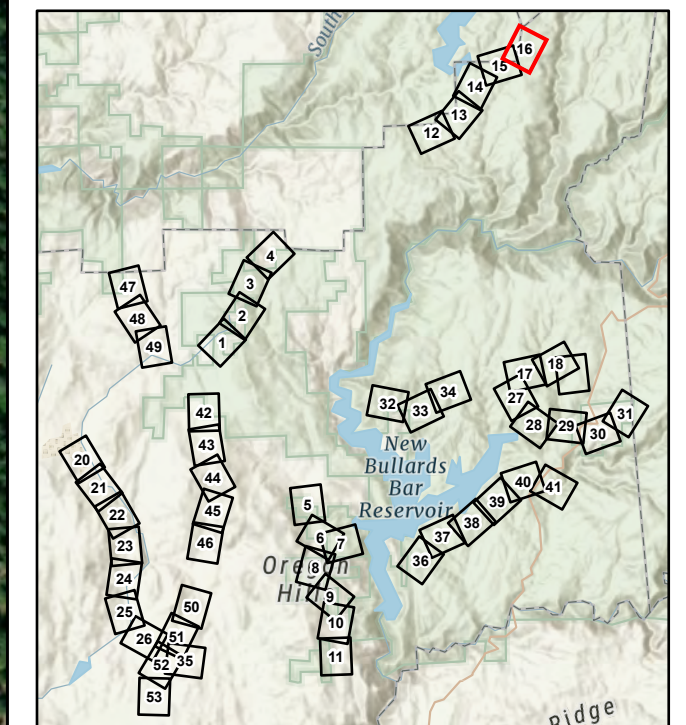


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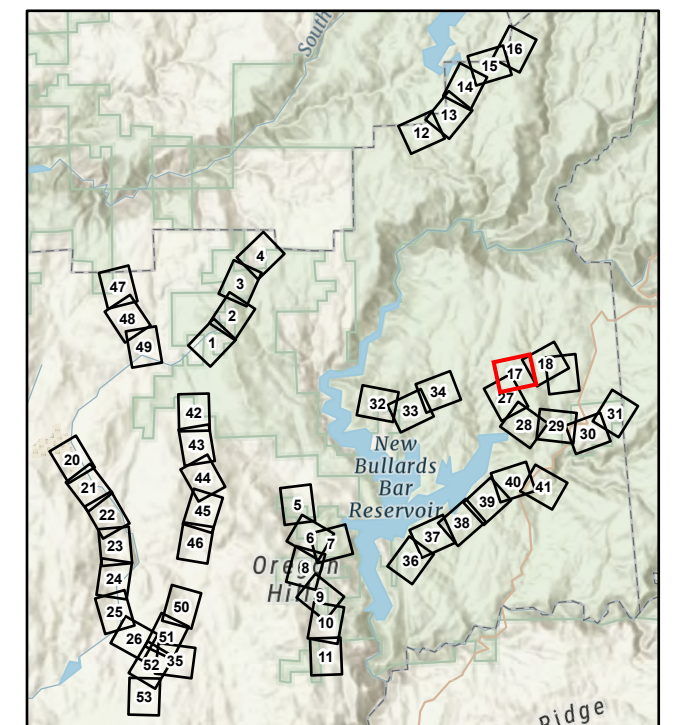


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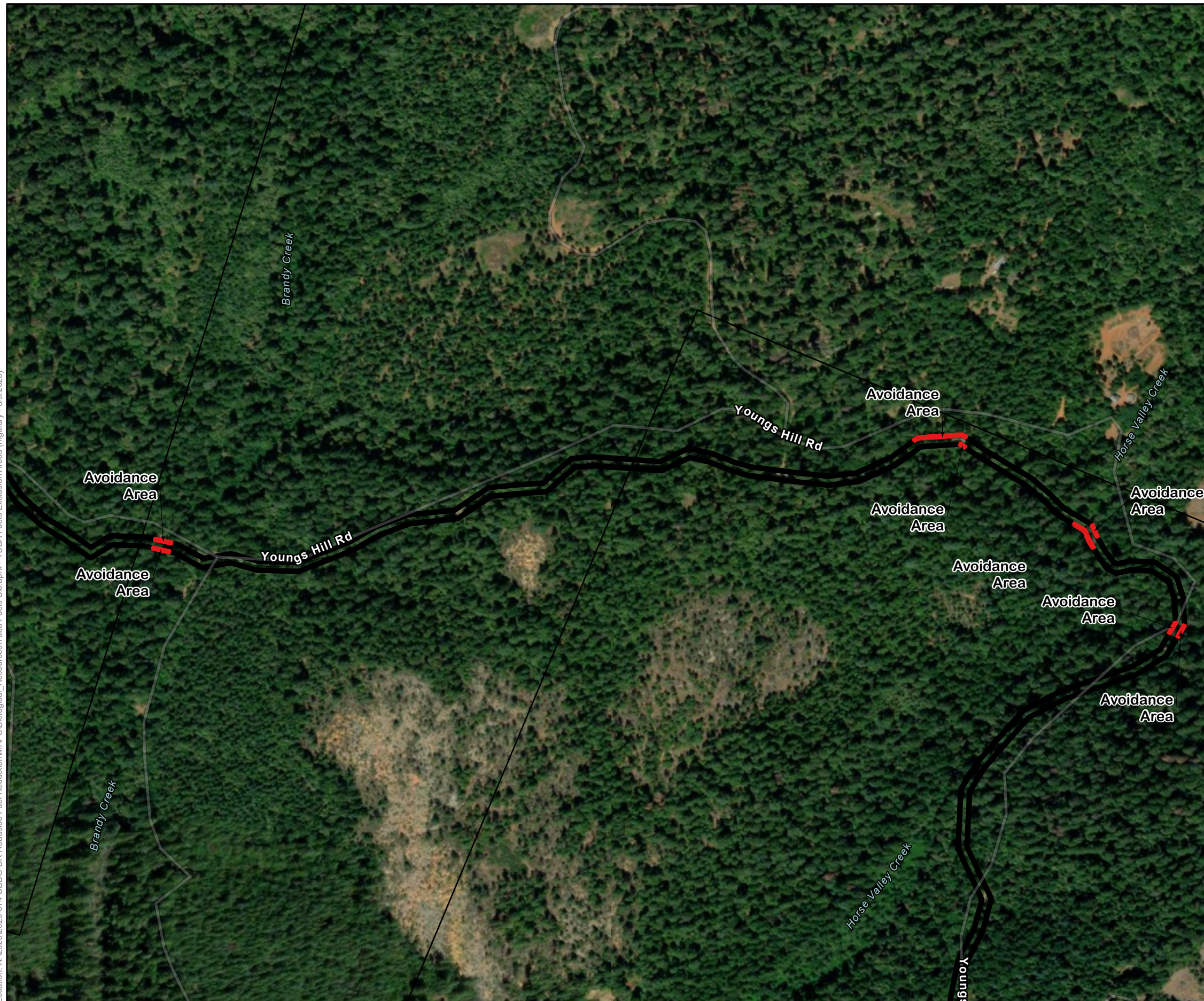


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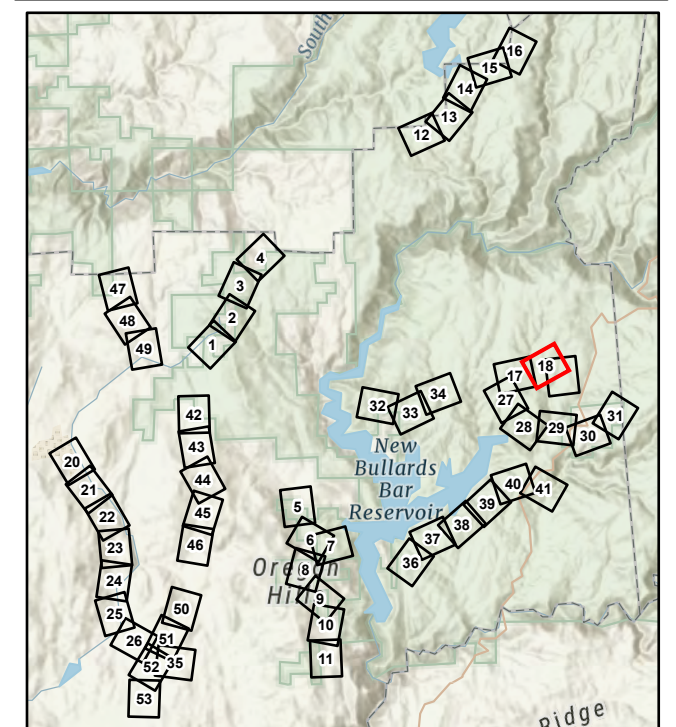
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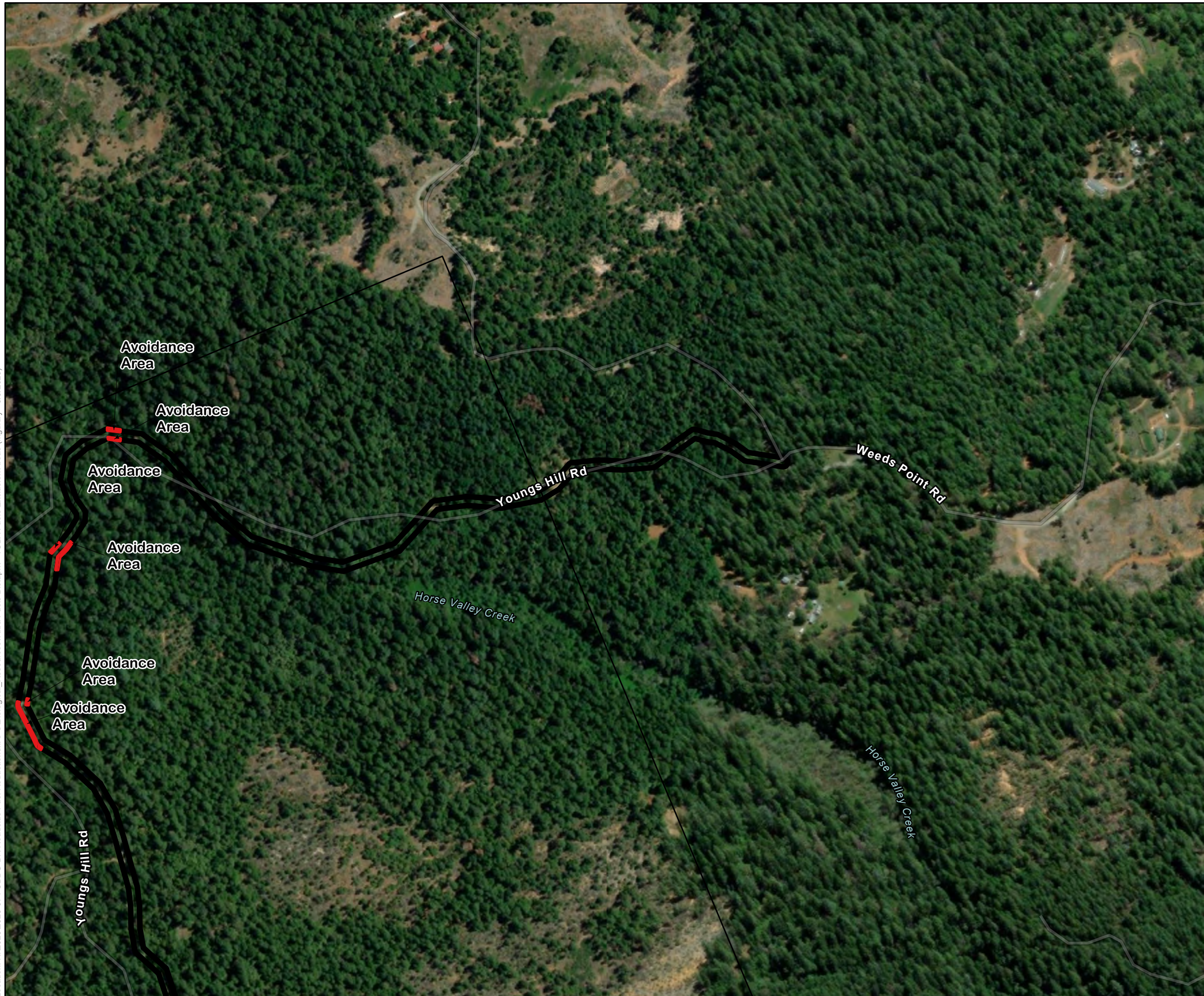
Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



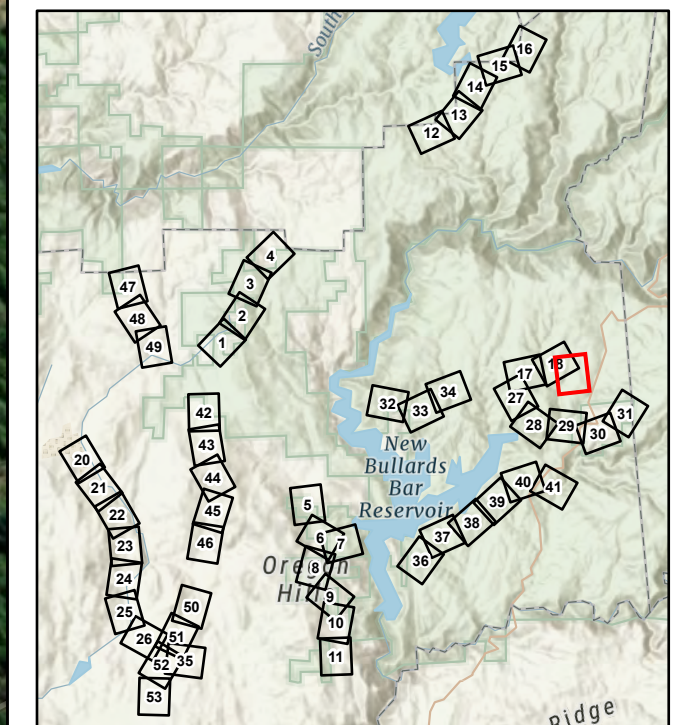
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri

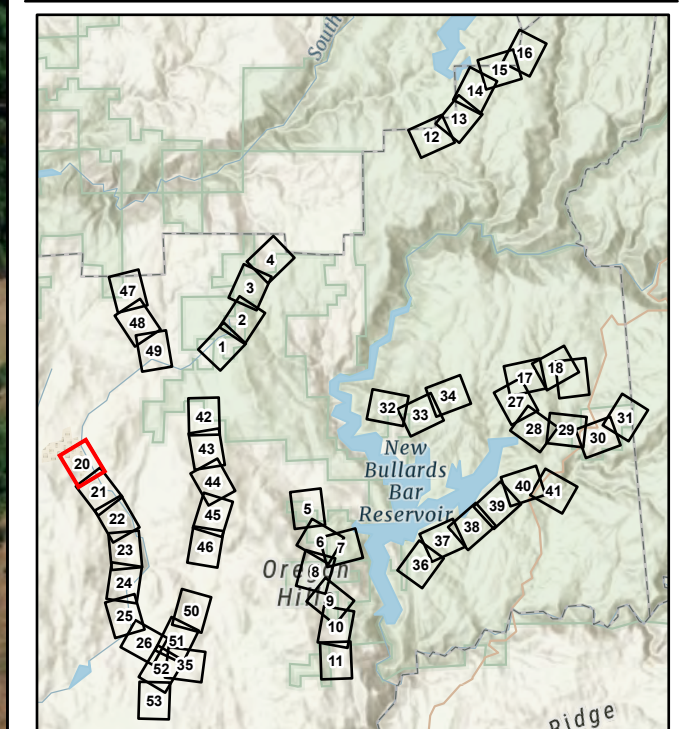


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- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

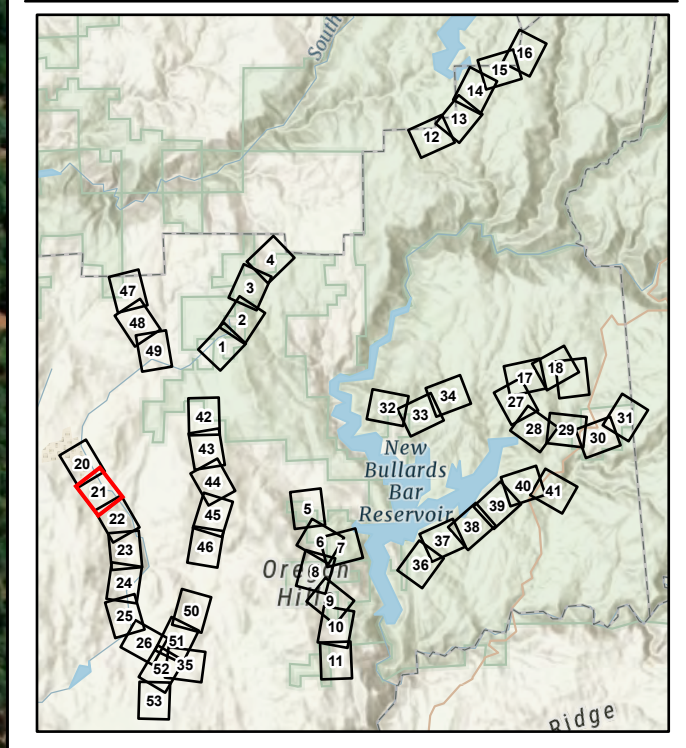


Map Contents

Study Area

Aquatic Resource Avoidance Area


Sources: Yuba County, USFWS, Esri




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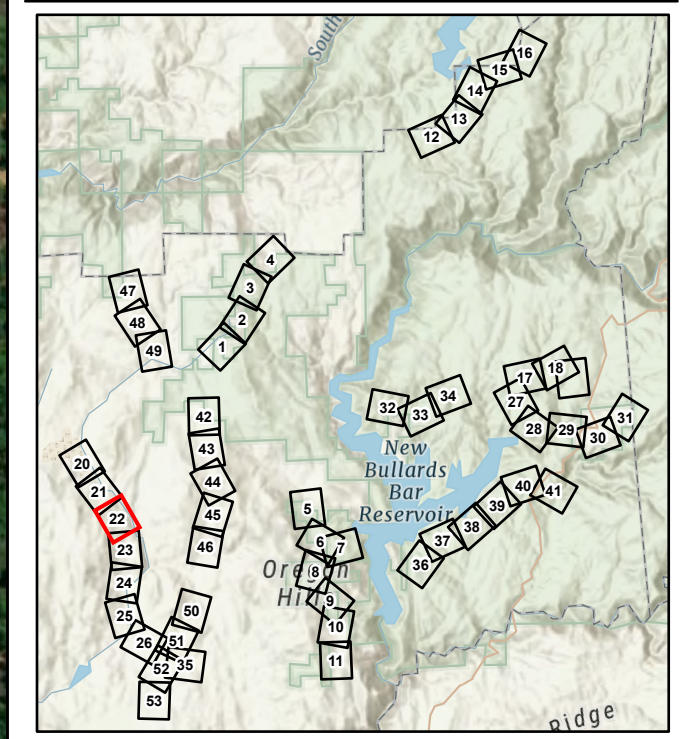


Map Contents

 Study Area

 Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



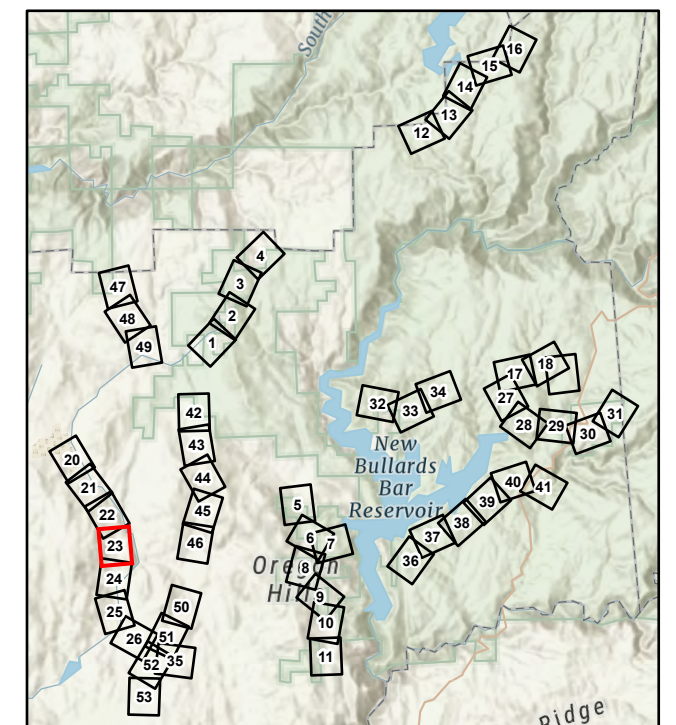
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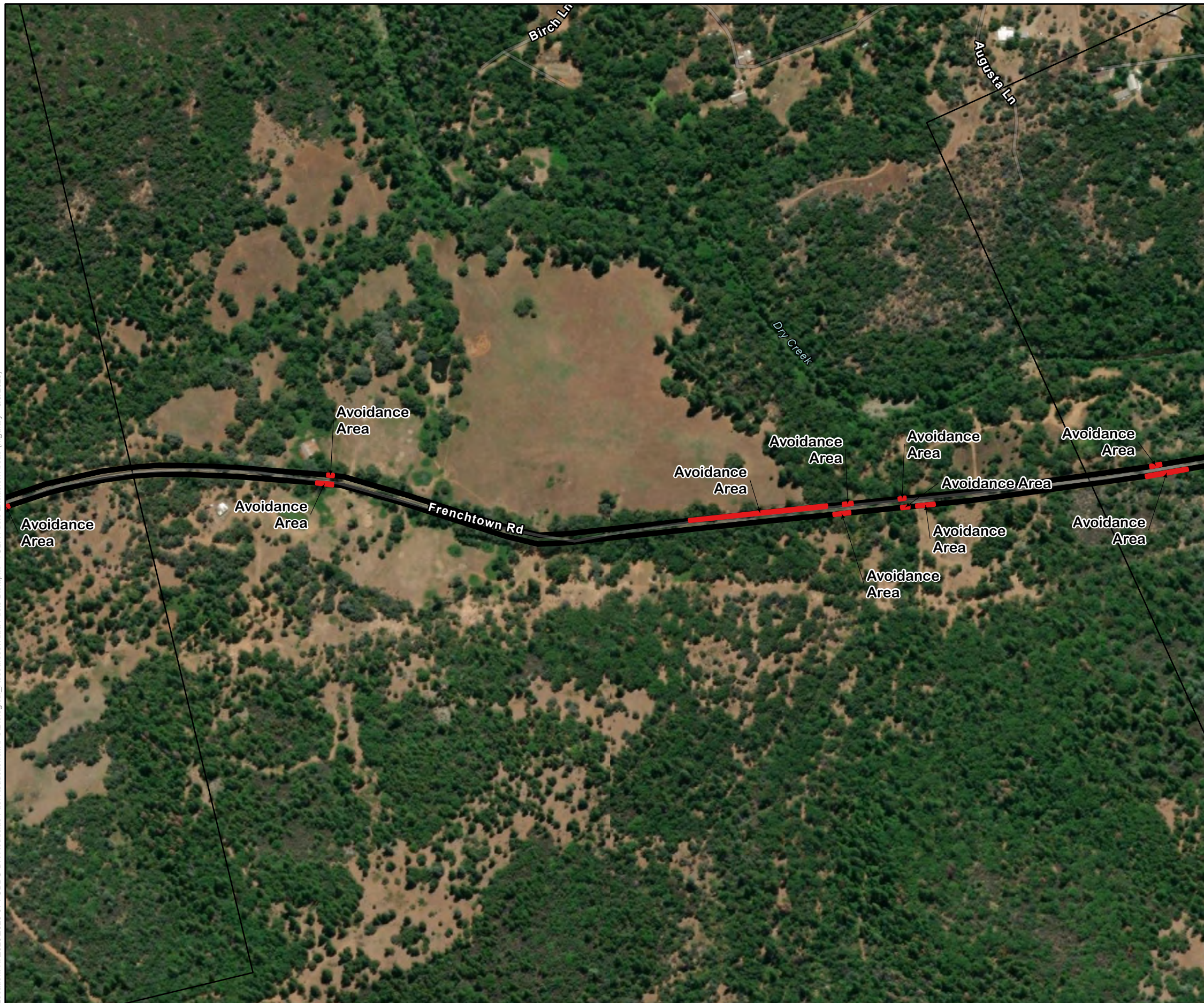
Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



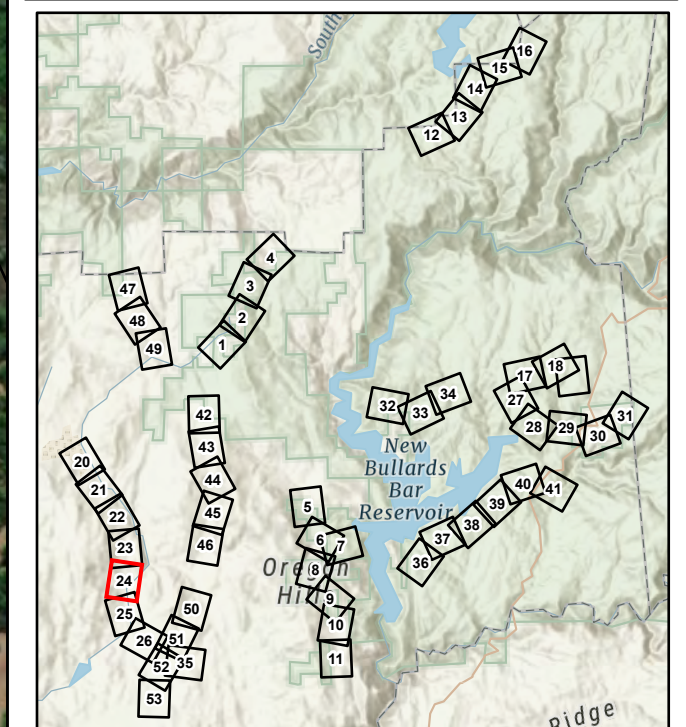
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Map Contents

- Study Area
- Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mgridry - 8/9/2023)

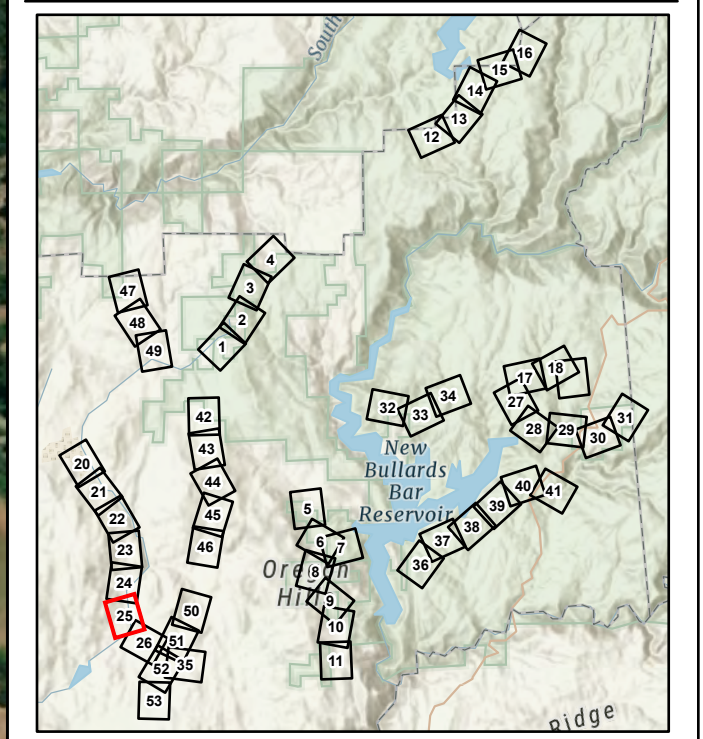


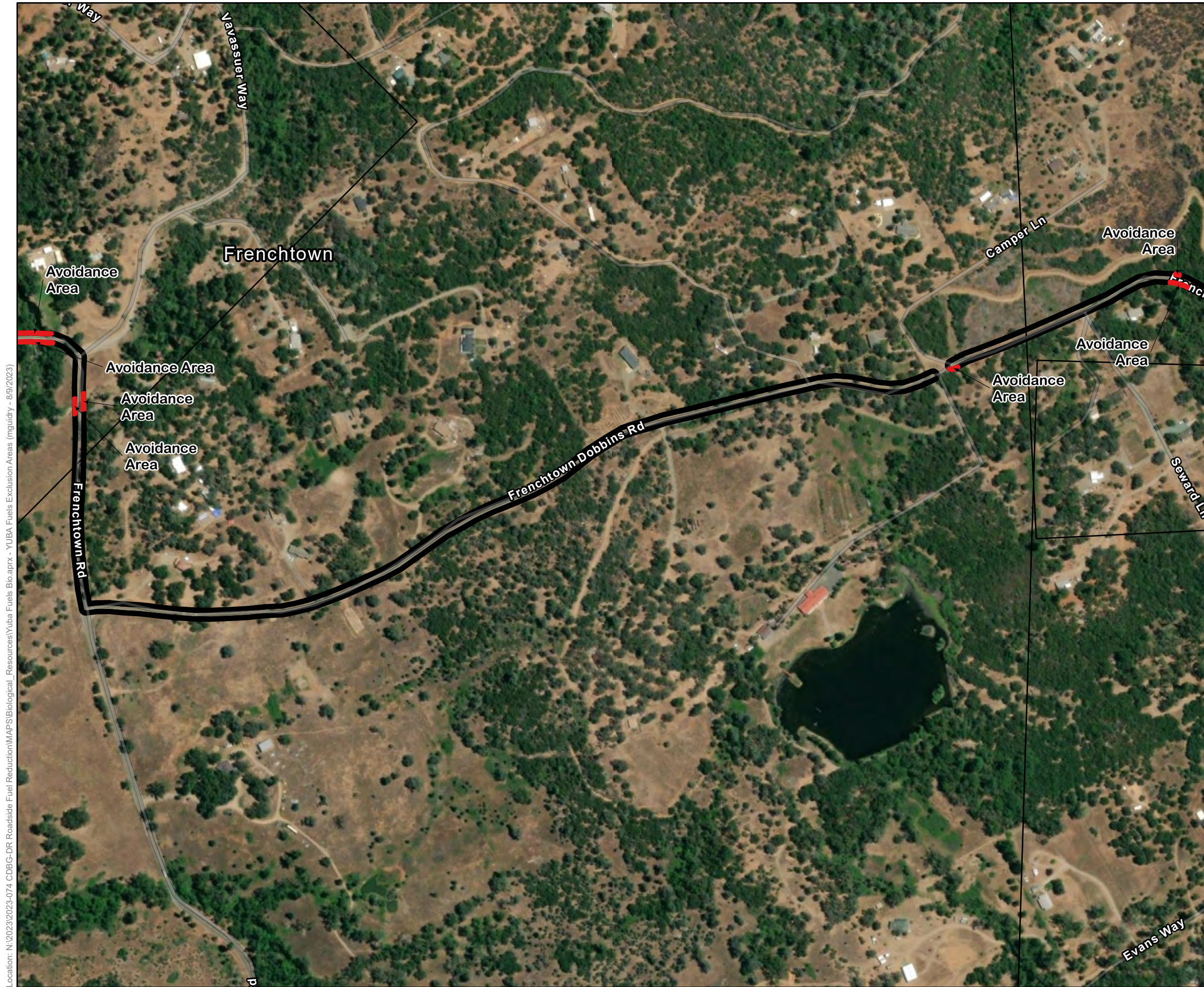
Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



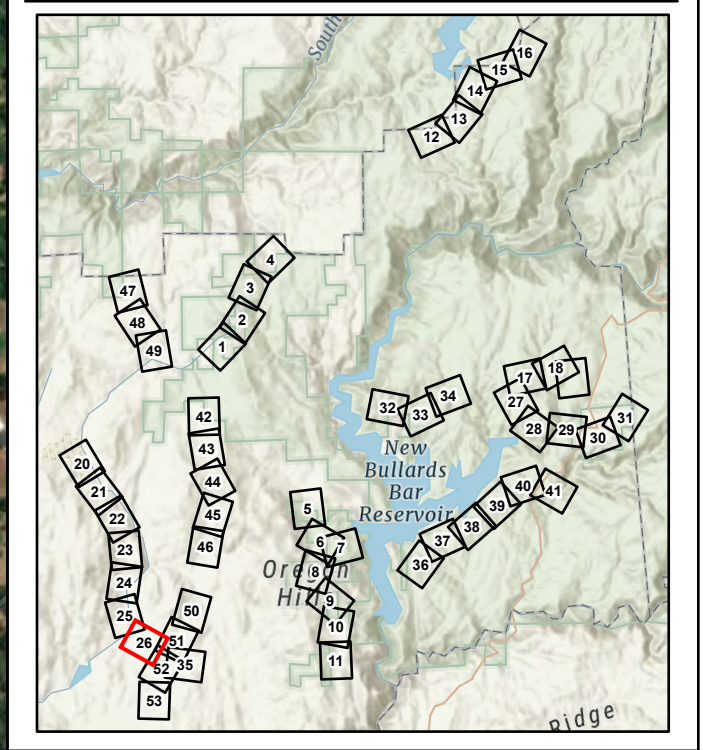


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



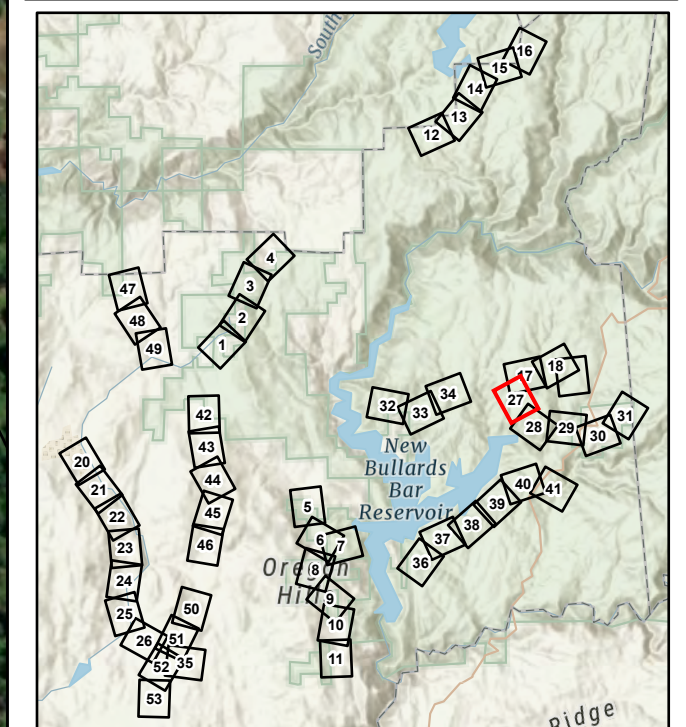
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Map Contents
Study Area



Sources: Yuba County, USFWS, Esri



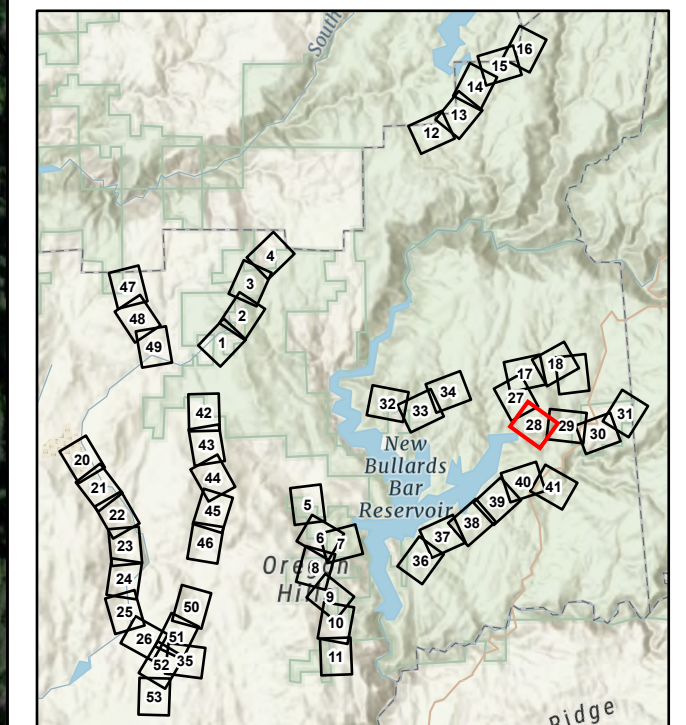
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

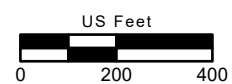
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



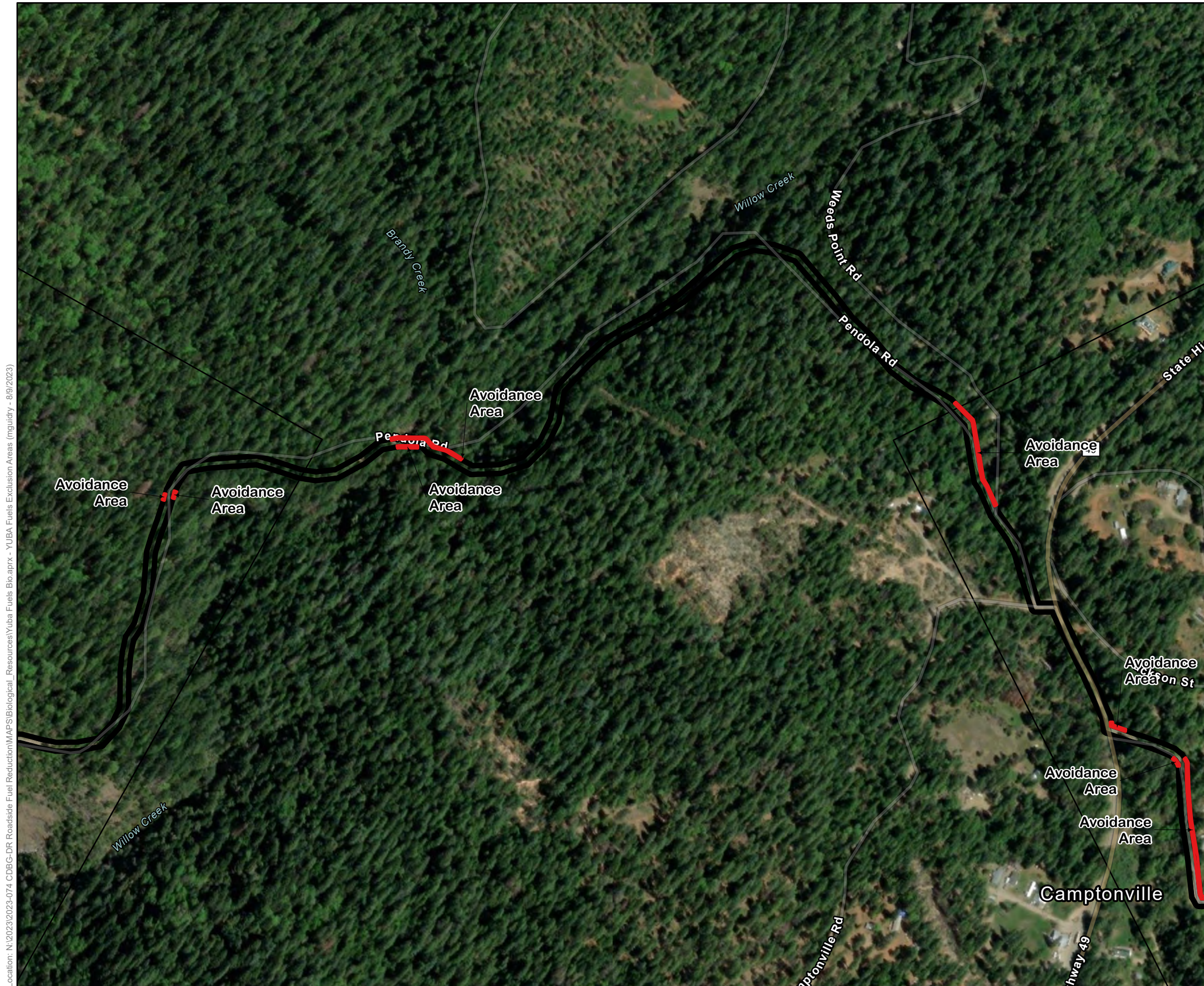
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2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)

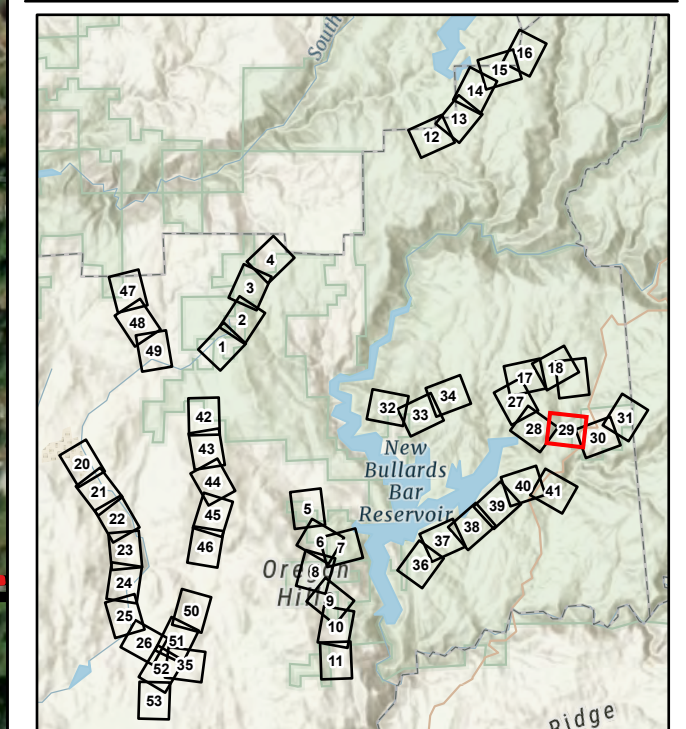


Map Contents

 Study Area

 Aquatic Resource Avoidance Area



Sources: Yuba County, USFWS, Esri



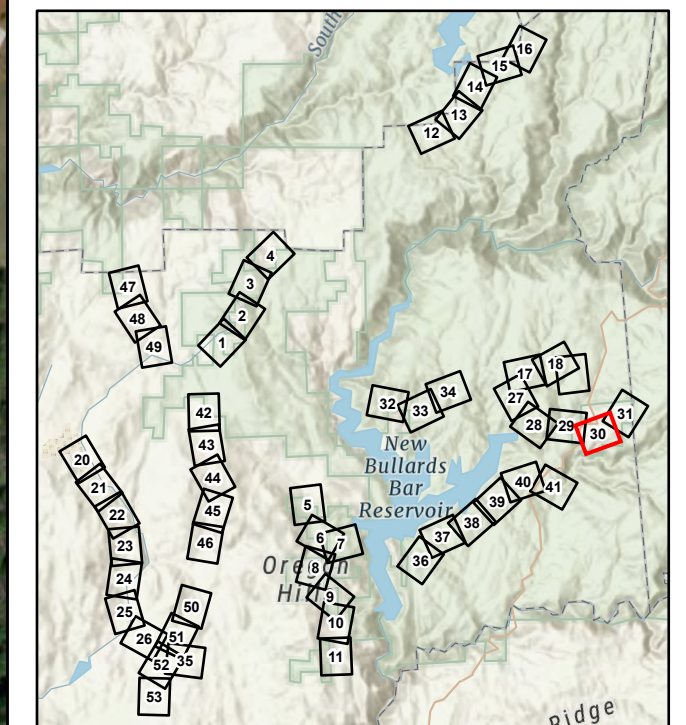
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Map Contents

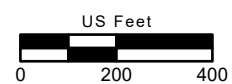
-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

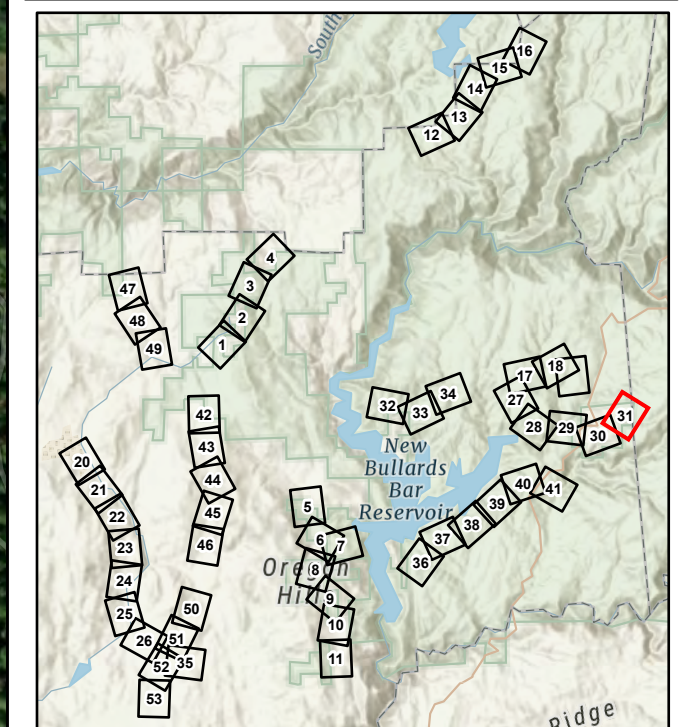
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Map Contents

- Study Area
- Aquatic Resource Avoidance Area

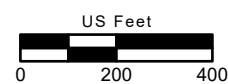
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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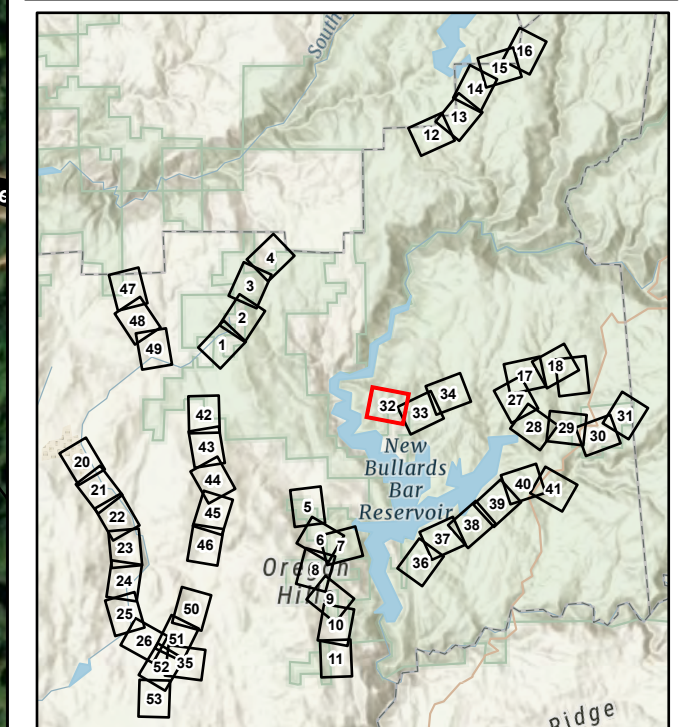
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents
Study Area



Sources: Yuba County, USFWS, Esri



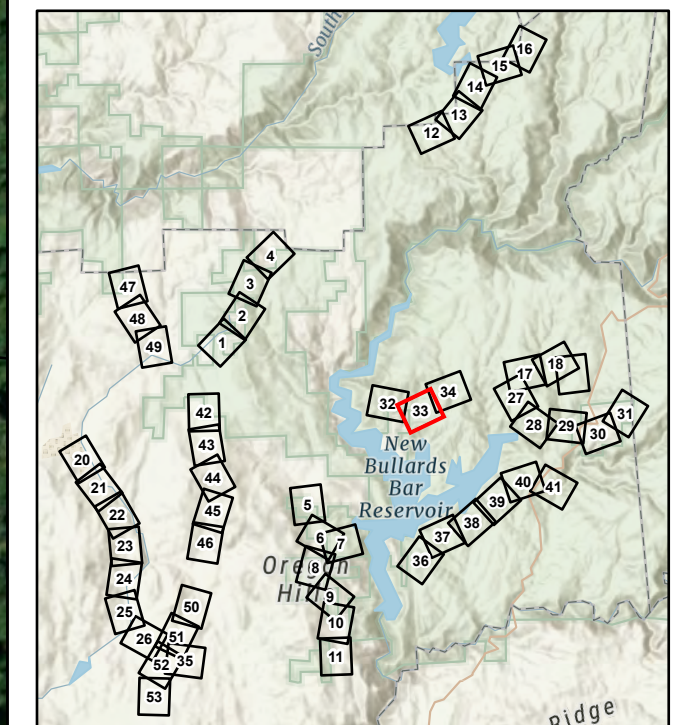
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area


Sources: Yuba County, USFWS, Esri



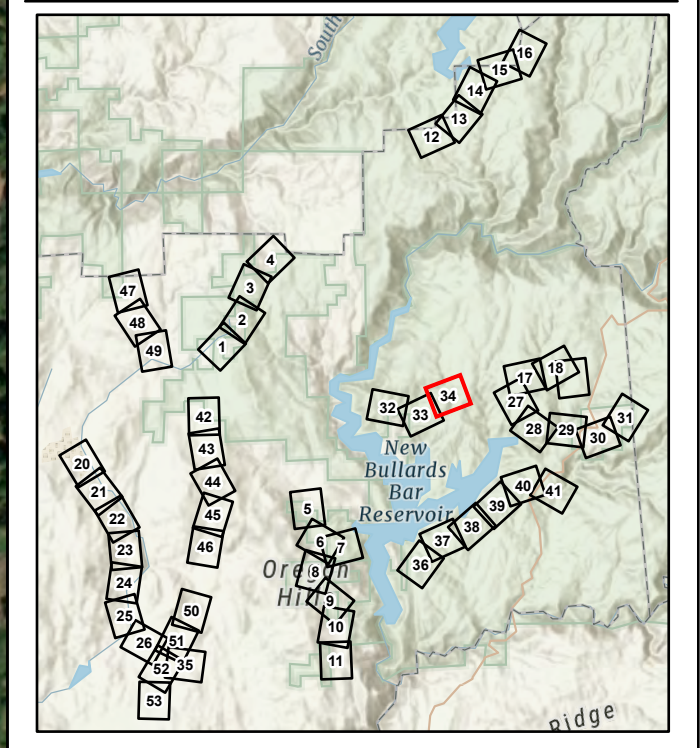
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Map Contents

 Study Area



Sources: Yuba County, USFWS, Esri



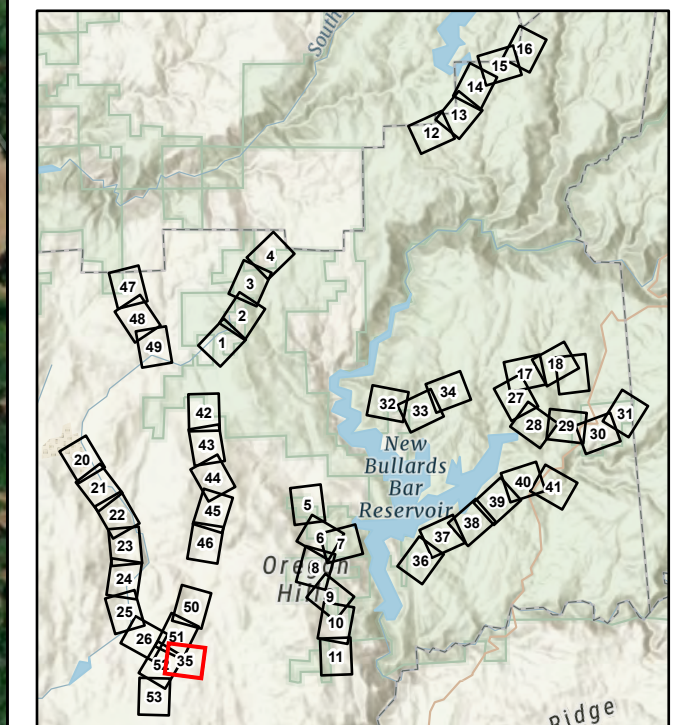
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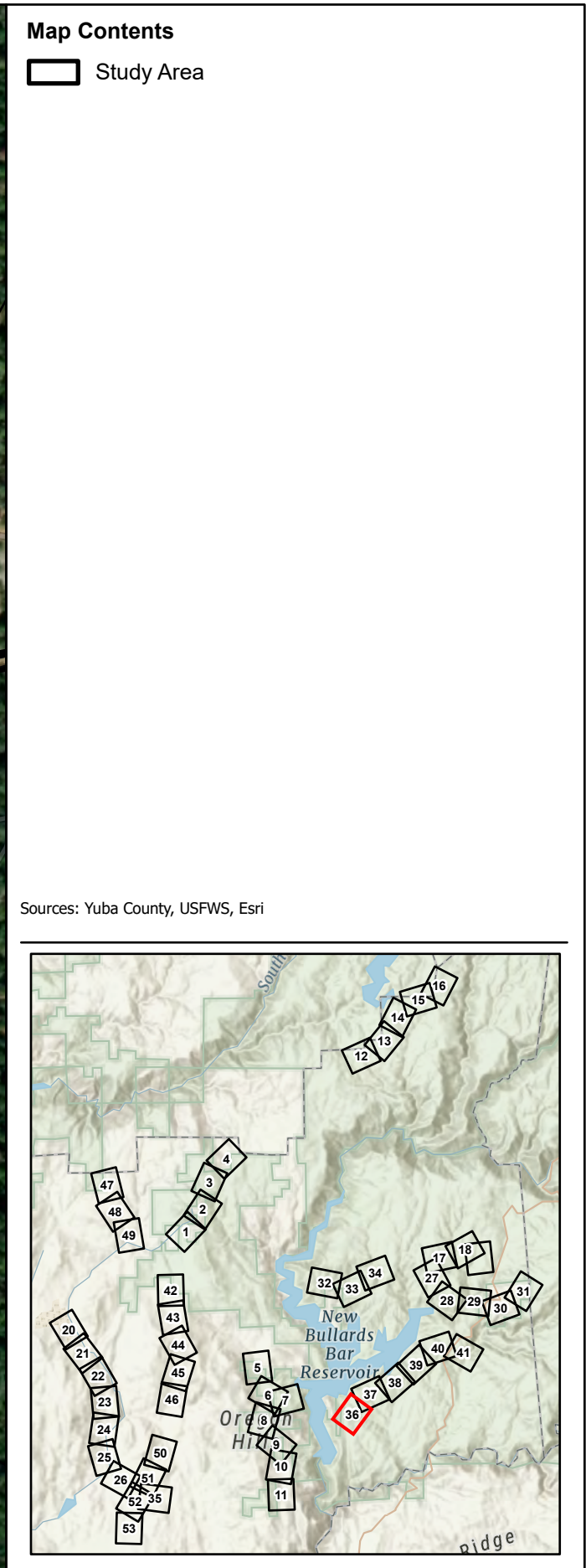
Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

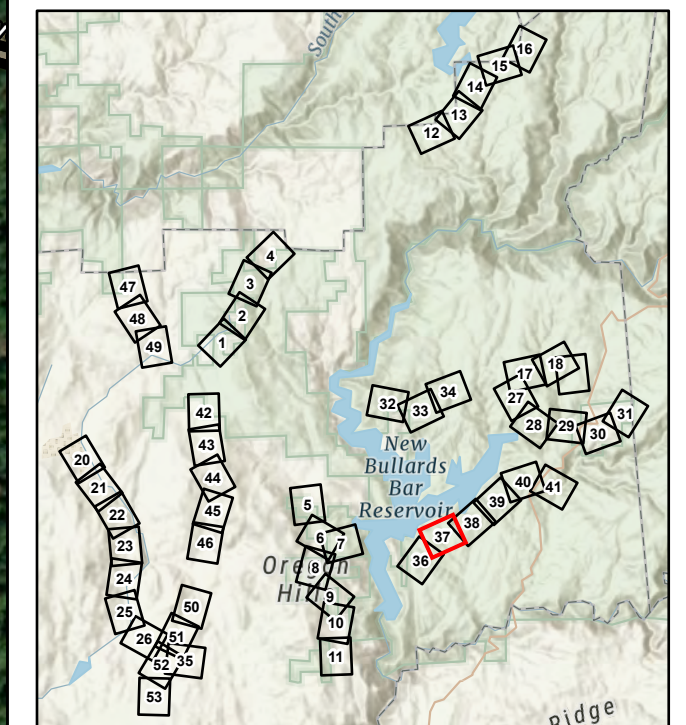


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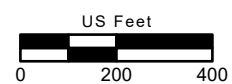
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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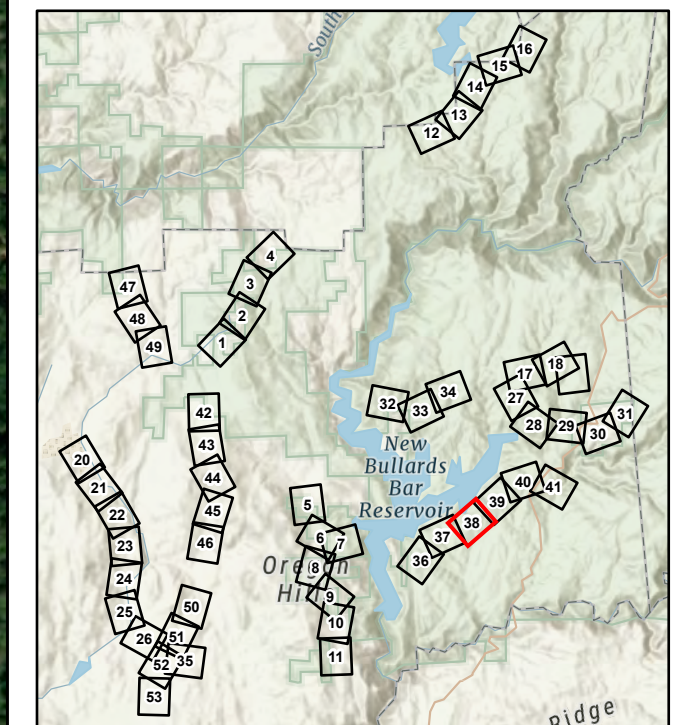
2023-074 CDBG-DR Roadside Fuel Reduction

Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

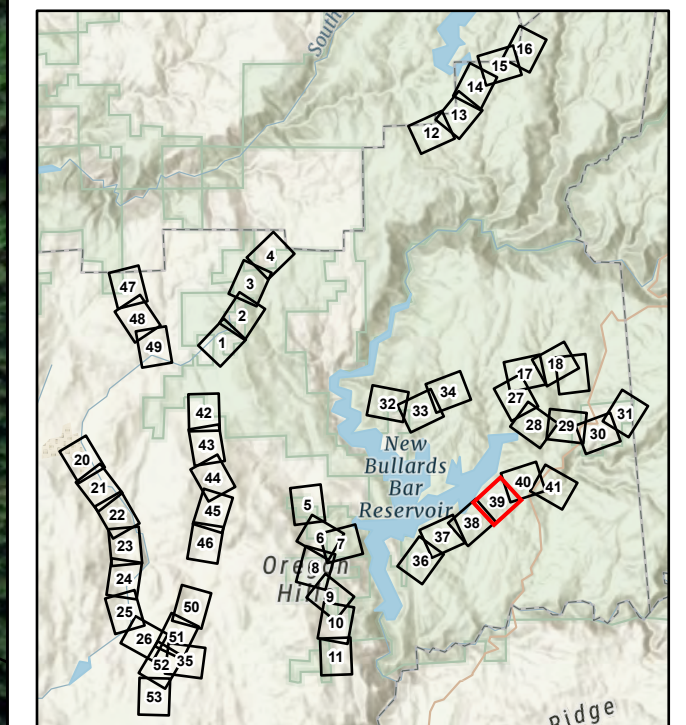


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Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

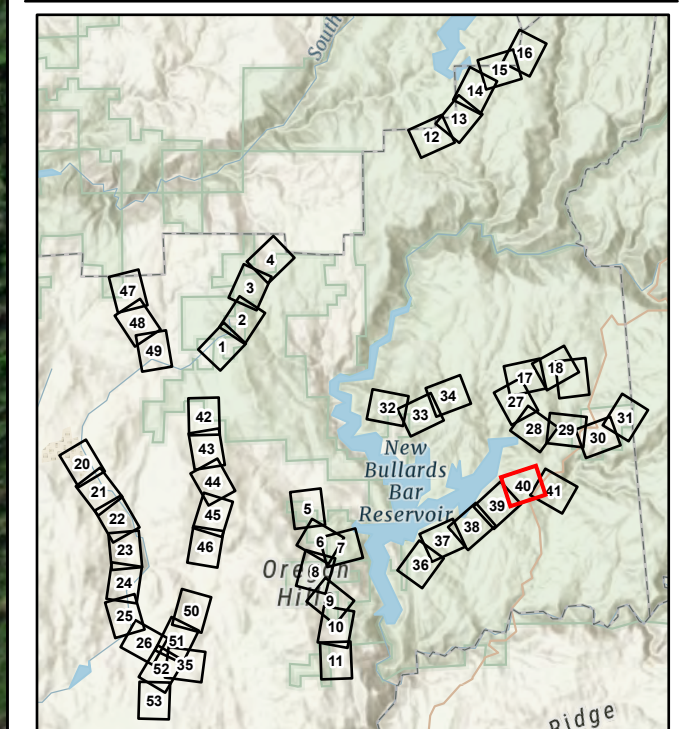


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Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

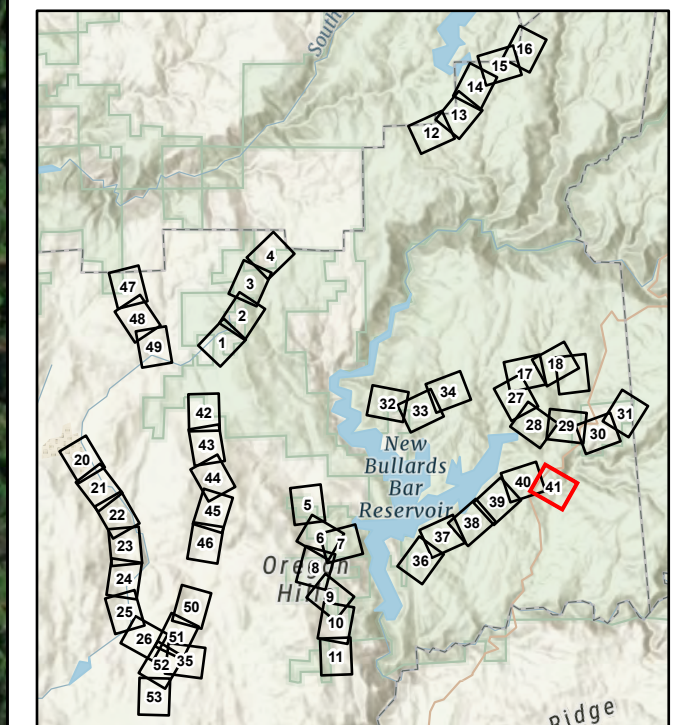


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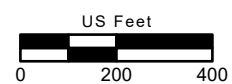
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

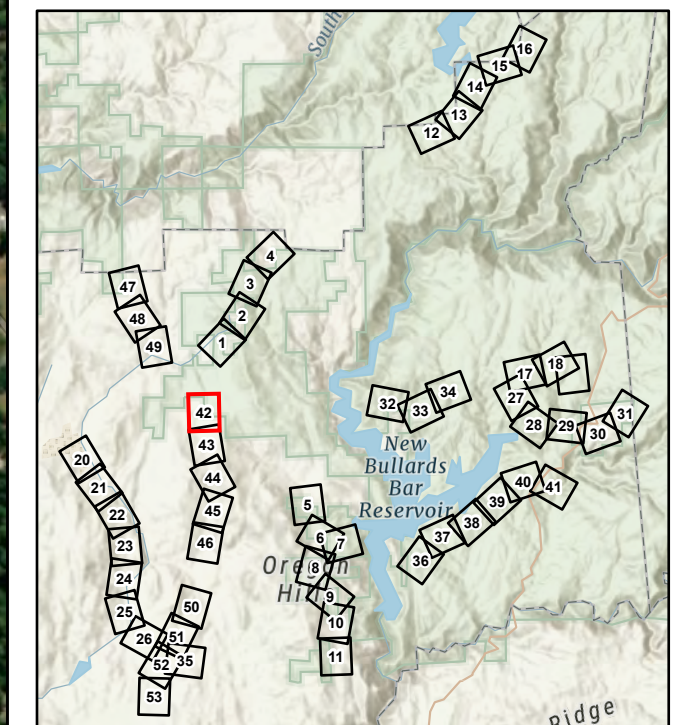
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri

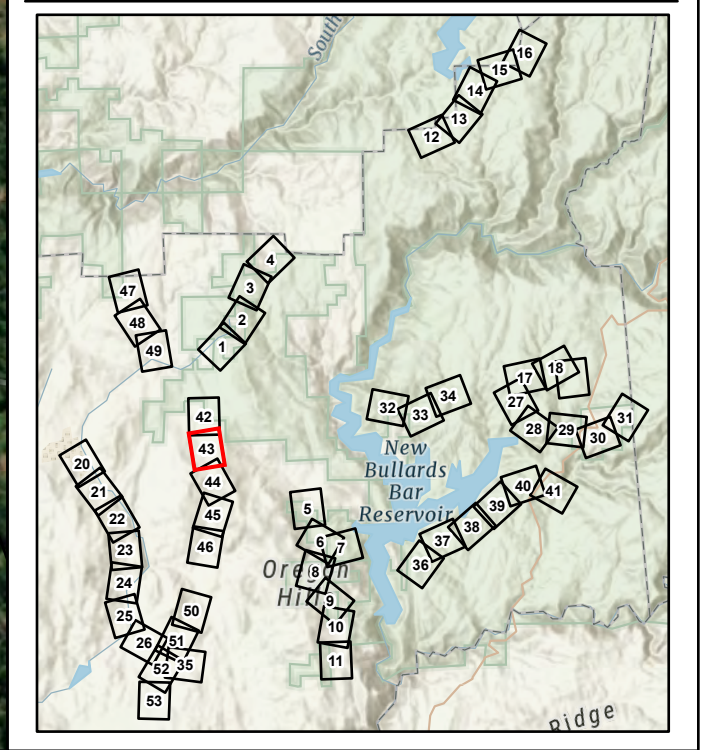




Map Contents

- Study Area
- California Red Legged Frog Critical Habitat
- Aquatic Resource Avoidance Area
- Culvert Location

Sources: Yuba County, USFWS, Esri



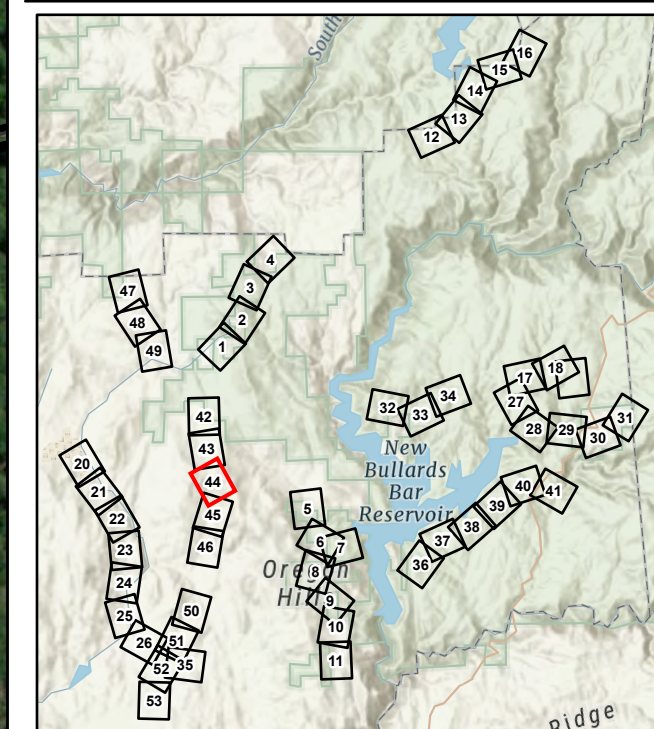
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Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



- Map Contents**
- Study Area
 - California Red Legged Frog Critical Habitat
 - Aquatic Resource Avoidance Area
 - Culvert Location




Sources: Yuba County, USFWS, Esri



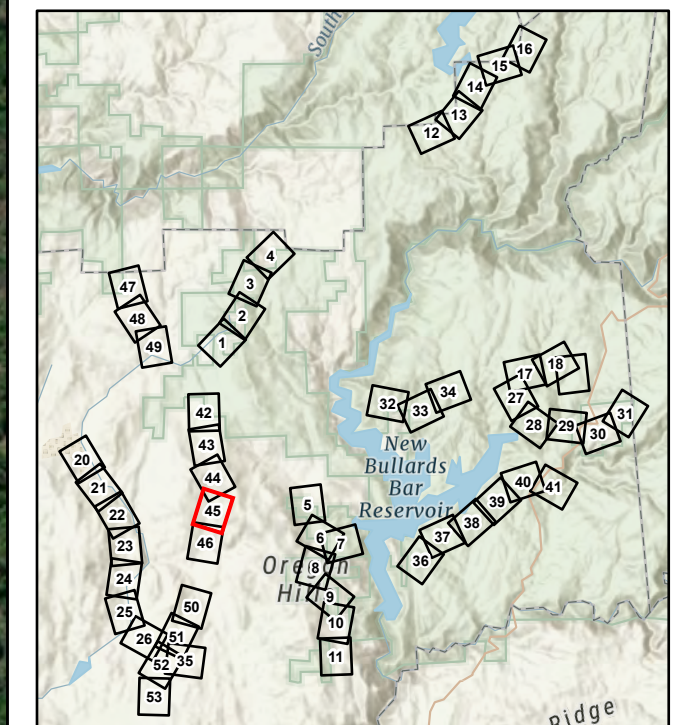
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Map Contents

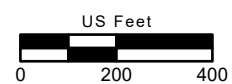
-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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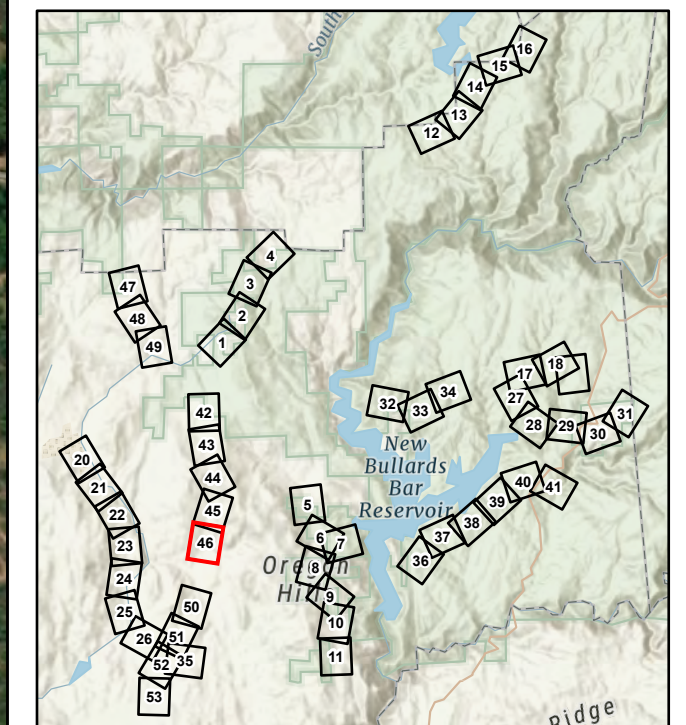
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

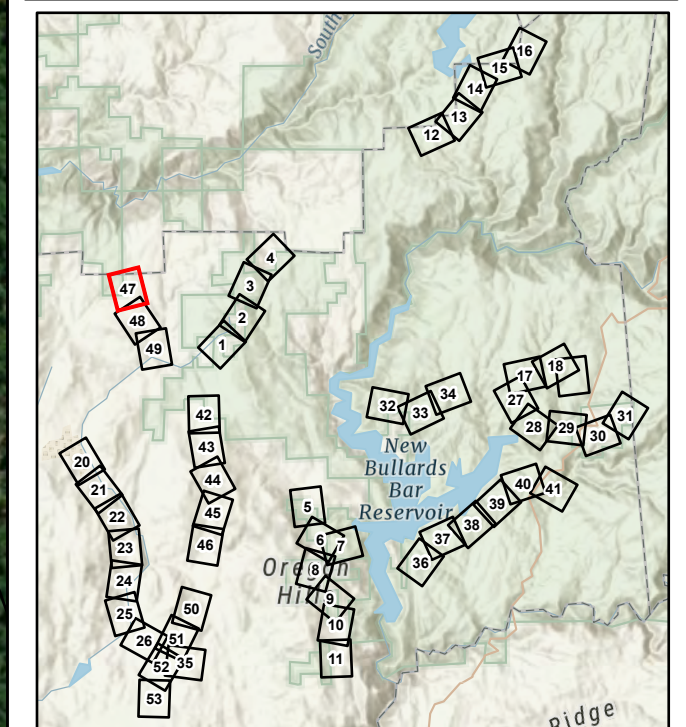


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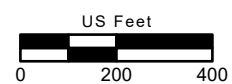
Map Contents
Study Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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2023-074 CDBG-DR Roadside Fuel Reduction

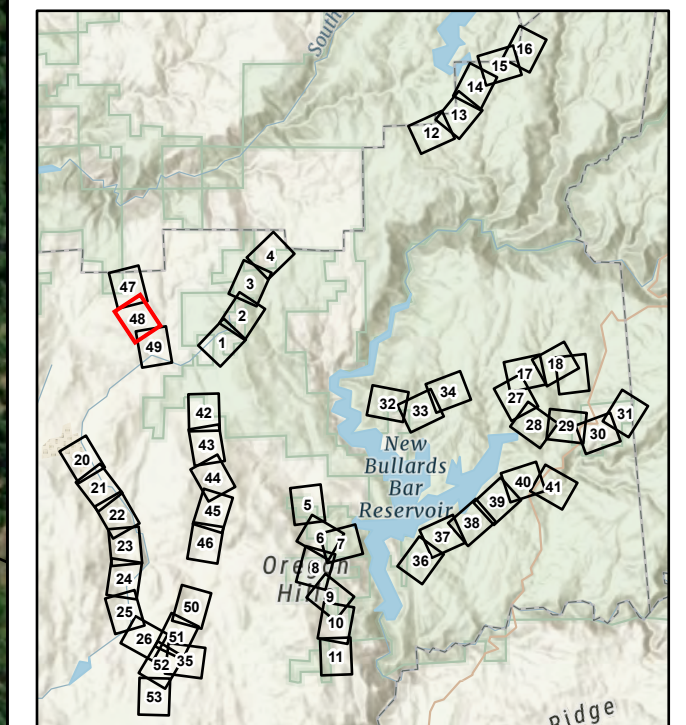
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Map Contents

- Study Area
- Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

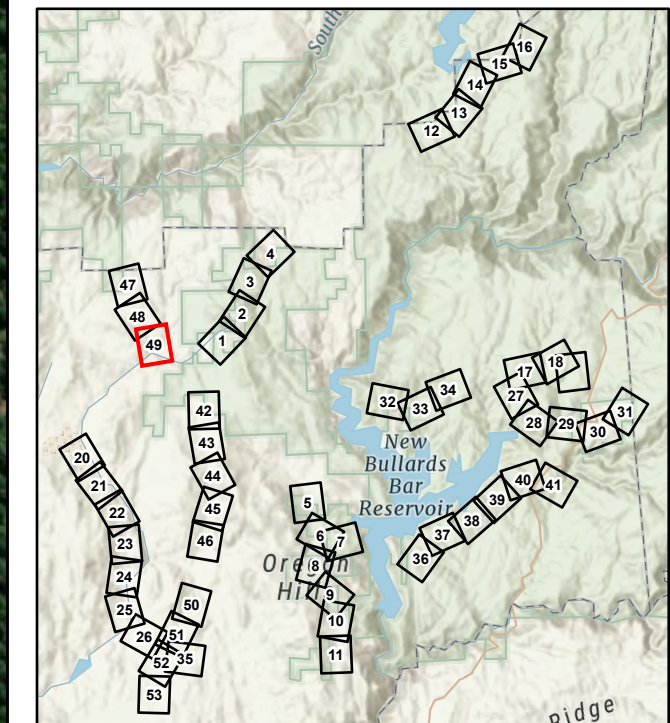


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- Map Contents**
- Study Area
 - Aquatic Resource Avoidance Area




Sources: Yuba County, USFWS, Esri



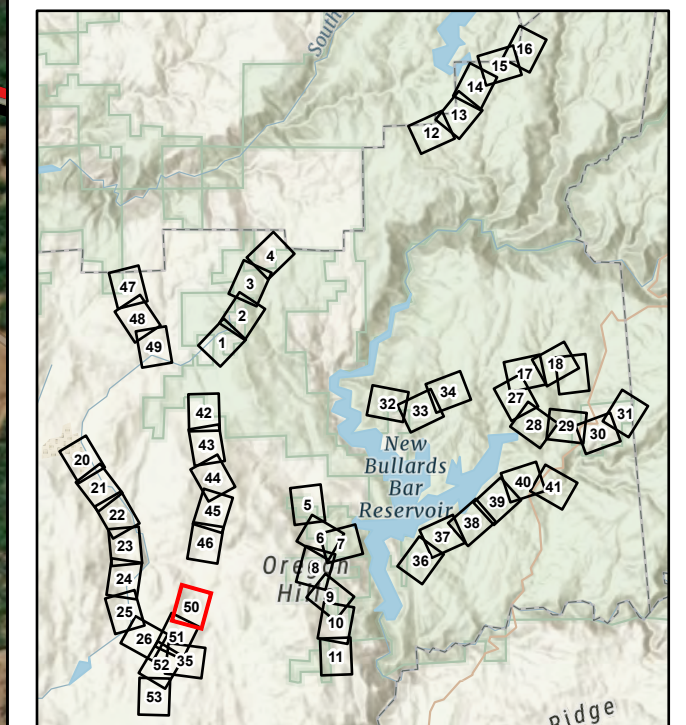
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Map Contents

-  Study Area
-  Aquatic Resource Avoidance Area
-  Culvert Location

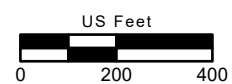
Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023



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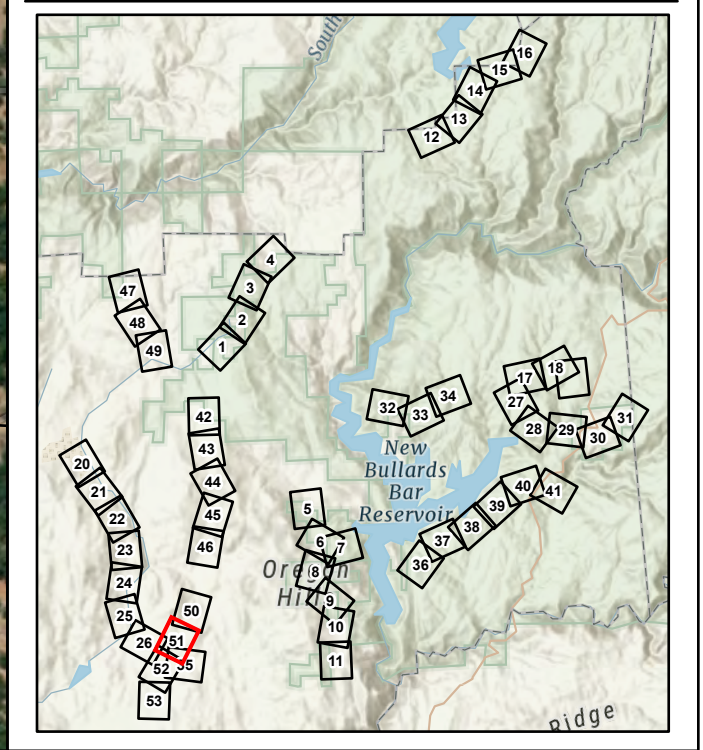


Map Contents

Study Area

Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri





Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\WAPS\Biological_Resources\Yuba Fuels Exclusion Areas (mguidry - 8/9/2023)

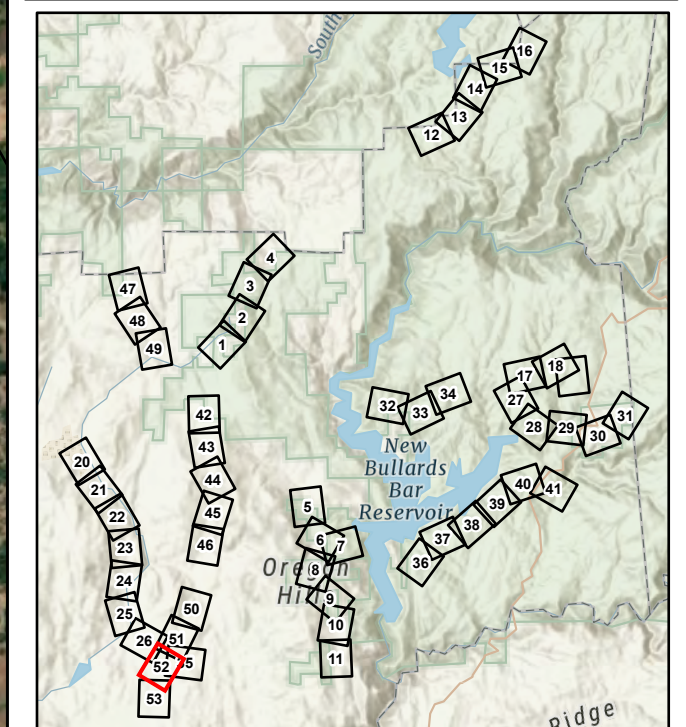
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Map Contents

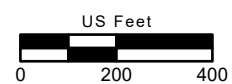
-  Study Area
-  Aquatic Resource Avoidance Area

Sources: Yuba County, USFWS, Esri



Map Date: 8/9/2023

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Location: N:\2023\2023-074 CDBG-DR Roadside Fuel Reduction\MAPS\Biological_Resources\Yuba Fuels Bio.aprx - YUBA Fuels Exclusion Areas (mguidry - 8/9/2023)



Map Contents
Study Area

Sources: Yuba County, USFWS, Esri

