

NOTICE OF FINDING OF NO SIGNIFICANT IMPACT AND NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS

February 10, 2024

Big Valley Band of Pomo Indians
2726 Mission Rancheria Road
Lakeport, CA 95453
707-263-3924

These notices shall satisfy two separate but related procedural requirements for activities to be undertaken by the Big Valley Band of Pomo Indians (hereafter referred to as the "Tribe").

I. NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS

On or about February 27, 2024 the Tribe will submit a request to the U.S. Department of Housing and Urban Development Office of Public Housing for the release of Indian Community Development Block Grant funds (ICDBG) under Title I of the Housing and Community Development Act of 1974, as amended (42 U.S.C. §5301 et seq.) to undertake a project known as the Big Valley Education Center for the purpose of developing a 7,200 square-foot education center on a 0.75-acre project site on the Tribe's Reservation in Lake County. The education center would provide classrooms, offices, bathrooms, kitchen, cafeteria, reception, and storage space. The project site is within Zone AO (2 feet) and Zone AE (EL 1331), which are 1% annual chance of flood hazard areas associated with Clear Lake. The proposed building would be elevated at least two feet above the base flood elevation. The estimated project cost and amount to be funded by HUD is \$1,823,899. Funds administered through the ICDBG Program will be used to design and construct the proposed education center.

II. NOTICE OF FINDING OF NO SIGNIFICANT IMPACT

The Tribe has determined that the project will have no significant impact on the human environment. Therefore, an Environmental Impact Statement under the National Environmental Policy Act of 1969 (NEPA) is not required. Additional project information is contained in the EA and Environmental Review Record (ERR). The ERR is available to the public electronically. The ERR can be accessed online at: www.bvrancheria.com. To receive the ERR by email please contact Elizabeth Lincoln at ehowe@big-valley.net.

III. PUBLIC COMMENTS

Any individual, group, or agency may submit written comments on the ERR to Elizabeth Lincoln, Economic Development Director, Big Valley Band of Pomo Indians, 2726 Mission Rancheria Road, Lakeport, CA 95453 or to ehowe@big-valley.net. All comments received by February 26, 2024, will be considered by the Tribe prior to authorizing submission of a request for release of funds. Comments should specify which Notice they are addressing.

IV. ENVIRONMENTAL CERTIFICATION

The Tribe certifies to HUD that Flaman McCloud Jr., in his capacity as Chairman of the Big Valley Band of Pomo Indians, consents to accept the jurisdiction of the Federal Courts if an action is brought to enforce responsibilities in relation to the environmental review process and that these responsibilities have been satisfied. HUD's approval of the certification satisfies its responsibilities under NEPA and related laws and authorities and allows the Tribe to use Program funds.

V. OBJECTIONS TO RELEASE FUNDS

HUD will accept objections to its release of fund and the Tribe's certification for a period of fifteen days following the anticipated submission date or its actual receipt of the request (whichever is later) only if they are on one of the following bases: (a) the certification was not executed by the Certifying Officer of the Tribe; (b) the Tribe has omitted a step or failed to make a decision or finding required by HUD regulations at 24 CFR part 58; (c) the grant recipient or other participants in the development process have committed funds, incurred costs or undertaken activities not authorized by 24 CFR Part 58 before approval of a release of funds by HUD; or (d) another Federal agency acting pursuant to 40 CFR Part 1504 has submitted a written finding that the project is unsatisfactory from the standpoint of environmental quality. Objections must be prepared and submitted in accordance with the required procedures (24 CFR Part 58, Sec. 58.76) and shall be addressed to Deborah S. Broermann at Deborah.S.Broermann@hud.gov. Potential objectors should contact HUD to verify the actual last day of the objection period.

Flaman McCloud Jr., Chairman
Big Valley Band of Pomo Indians



**U.S. Department of Housing and Urban
Development**

451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

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

Project Information

Project Name: Big Valley Education Center

Responsible Entity: Big Valley Band of Pomo Indians

Grant Recipient: Big Valley Band of Pomo Indians

State/Local Identifier: DUNS 112509950

Preparer: Acorn Environmental

Certifying Officer Name and Title: Flaman McCloud Jr., Chairman

Consultant: Acorn Environmental

Direct Comments to: Elizabeth Lincoln, Economic Development Director, Big Valley Band of Pomo Indians, 2726 Mission Rancheria Road, Lakeport, CA 95453, ehowe@big-valley.net

Project Location: The project site is located on the Big Valley Band of Pomo Indians Rancheria in unincorporated Lake County, California. The site is located near Clear Lake and is approximately one mile southeast of the City of Lakeport. The Project site is located off Osprey Court and Park View Drive (**Figure 1**).

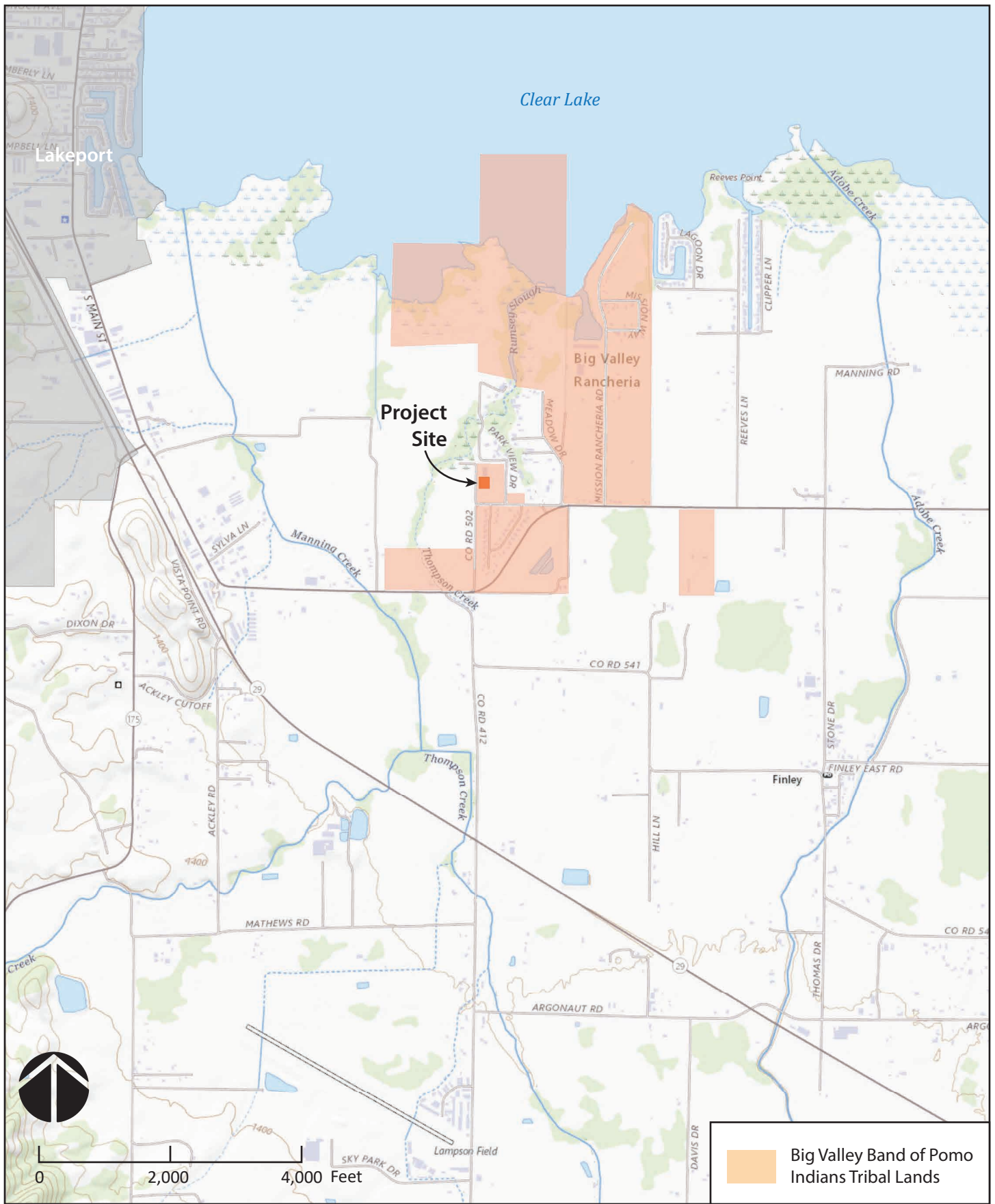
Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The Project consists of the development of a 7,200 square-foot education center on a 0.75-acre project site on the Tribe's Reservation. The education center would provide classrooms, offices, bathrooms, kitchen, cafeteria, reception, and storage space. The specific design and location of the education center has not been determined but would be located within the project site boundaries shown in **Figure 2**. Existing Tribal buildings and infrastructure, including the Tribe's Recreation Center, are located within and adjacent to the project site. An existing 2,160 square-foot modular building, which serves as the current education building, will be relocated off of the site to allow for the construction of the proposed education center. The existing parking lot for the Recreation Center will be used for the proposed education center. Water and wastewater services would be provided by the Big Valley Rancheria Water District, which currently provides service to the site. Electrical service would be extended from the existing Recreation Center. The project site is within Zone AO (2 feet) and Zone AE (EL 1331), which are 1% annual chance of flood hazard areas. The floor of the proposed building would be elevated at least two feet above the base flood elevation.

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

The Project will provide a needed education facility with supporting uses including a kitchen and cafeteria. This will provide dedicated space for the Tribe's Education Department, which provides youth with tutoring, homework assistance, healthy after school activities, a comprehensive summertime program, and programming that supports the reclaiming of their linguistic and cultural heritage. The Tribe's existing education building does not provide adequate classroom space or bathroom facilities for the number of students served.

Existing Conditions and Trends [24 CFR 58.40(a)]: The 0.75-acre project site is directly adjacent to the Tribe's Recreation Center and associated parking lot and driveway. The site is currently served with water, wastewater and electrical utility lines. The project site, as with the entire Rancheria, is within Zone AO (2 feet) and Zone AE (EL 1331), which are 1% annual chance of flood hazard areas. The project site is slightly sloped north toward Rumsey Slough and a tributary (Thompson Creek), which are both located within 500 feet and 300 feet of the project site, respectively. Rumsey Slough drains into Clear Lake a half mile north of the project site. Residential areas are located north, east and south of the project site. Agricultural fields are located west of the project site.



Source: USGS, The National Map; BIA LAR

FIGURE 1
PROJECT LOCATION



Source: Maxar Imagery (9/16/2022)

FIGURE 2
PROJECT SITE

Funding Information

Grant Number	HUD Program	Funding Amount
22-GC-06-0353-0	Indian Community Development Block Grant (ICDBG)	\$1,823,899

Estimated Total HUD Funded Amount:

\$1,823,899

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:

\$2,431,899

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
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"/>	The project site is not close to a military airport or a civilian airport. The closest airport is Lampson Field Airport which is a local airfield approximately 2 miles away. Williams Airport is approximately 45 miles away. The Project would not result in airport-related safety issues. Source Document: 1
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	No designated coastal barrier areas exist on the west coast; therefore, the Project is not located in a coastal barrier area and would not conflict with the Coastal Barrier Resources Act. Source Document: 2
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 checked="" type="checkbox"/> <input type="checkbox"/>	The project site is within a 100-year floodplain. The project site is located in Zone AO and Zone AE as indicated on FEMA Map Panel Number 06033C0494D, effective September 29, 2005. Zone AO and AE are defined as areas of 1% annual flood hazard. The proposed education center will have the floor elevated at least two

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
		feet above the estimated flood elevation. The Tribe will obtain flood insurance for the life of the building through the National Flood Insurance Program. Source Document: 3
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"/>	The Project is located within Lake County, which is in attainment status for all criteria pollutants and is not expected to increase any air pollutants based on use as an education center. Thus, the Project is in compliance with the Clean Air Act. Source Document: 4
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Coastal Zone Management Act does not apply to any areas within Lake County, California. Thus, the Project is in compliance with the Coastal Zone Management Act. Source Document: 5
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site does not contain a hazardous waste clean-up site and no open clean-up sites are located within one mile of the project site. There are two Completed – Closed Case cleanup program sites within one mile of the project site. Field reconnaissance by G.O. Graening (who meets the definition of Environmental Professional as defined in ASTM Standard E1527-13) confirmed that there were no indications of hazardous materials or contamination on the project site. Source Document: 6 and 7
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	There is no federally-designated critical habitat for any listed species within, or adjacent to, the Action Area. The nearest critical habitat is at least 11 miles away. A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System. The following protected resources were identified:

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
		<ul style="list-style-type: none"> Northern Spotted Owl (<i>Strix occidentalis caurina</i>) Threatened Monarch Butterfly (<i>Danaus plexippus</i>) Candidate Burke's Goldfields (<i>Lasthenia burkei</i>) Endangered <p>In addition, few-flowered navarretia (<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>) is a federally threatened plant species that has been identified in the vicinity (10-mile radius).</p> <p>Habitat on the project site is limited to annual grasslands and ruderal/developed areas. A biological field survey by Acorn Senior Biologist G.O. Graening on March 8, 2023 determined that the project site does not contain any channels or wetlands.</p> <p>The project site does not contain the requisite habitat for Burke's goldfields or few-flowered navarretia because it does not contain any vernal pools or other wetland habitats.</p> <p>Northern Spotted Owl requires forested habitats, and prefers older, coniferous forests. There are no forests at all within the project site and the nearest forests are stands of valley oak and other riparian species, not conifers. Critical habitat is 20 miles away to the north. The project site does not contain any suitable habitat for Northern Spotted Owl.</p> <p>During the breeding season, monarch butterflies lay their eggs on their obligate milkweed host plant (primarily <i>Asclepias</i> spp.). No milkweed plants are known to occur in the project site, and the fields are regularly mowed, which does not allow herbs to grow. The project site does not contain any suitable habitat for monarch butterfly.</p> <p>Source Document: Attachment 1</p>
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Field reconnaissance by G.O. Graening (who meets the definition of Environmental Professional as defined in ASTM Standard E1527-13) confirmed there were no aboveground storage tanks of concern on the

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
		project site or in the immediate vicinity. No explosive or flammable hazards have been identified that would affect the Project. Source Document: 6 and 7
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is not used for agricultural purposes and is identified as urban and built-up land by the California Department of Conservation Farmland Mapping and Monitoring Program. The Project would not result in the conversion of agricultural land. Thus, the Project is in compliance with the Farmland Protection Policy Act. Source Document: 8
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes No <input checked="" type="checkbox"/> <input type="checkbox"/>	This Project is located in Zone AO and Zone AE, areas of 1% annual chance flood hazard as indicated on map panel number 06033C049D, effective September 29, 2005. The Proposed education center will have the floor elevated at least two feet above the base flood elevation. The Tribe has complied with the 8-Step Process under 24 CFR Part 55 and thus formal compliance was required and has been completed. Source Document: 3, Attachment 2
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Cultural Resource Survey of 6.2 acres for the Big Valley Rancheria was conducted in 1999 and subsequent surveys have been done for additional projects over the years, which cover the project site. According to the Tribe's Tribal Historic Preservation Officer, Ron Montez, Sr., no historic properties were found during the survey and the Tribe is not aware of any historic or cultural resources on the project site. The project site is partially developed with an existing modular building and prior land uses include intensive agriculture. The potential for any undiscovered cultural resources is negligible. No historic properties would be affected by the Project. The Tribe will monitor ground disturbing activities as discussed Mitigation Measure 3. Source Document: 16

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
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"/>	The project site is adjacent to a residential area. No highways or railroads are near the project site. The closest airport is Lampson Field Airport which is approximately two miles away. This is a local airport and is not a significant noise source. The Project does not include the development of residential uses, and thus would not expose new residential uses to unacceptable noise levels. Source Document: 1
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Project is not located near or served by a sole source aquifer and thus would not impact a sole source aquifer. Source Document: 9
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	A biological field survey by Acorn Senior Biologist G.O. Graening on March 8, 2023 determined that the project site does not contain any channels or wetlands.
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"/>	This Project is not within proximity of a Wild and Scenic River, Study River, or Nationwide Rivers Inventory River. The Project is in compliance with the Wild and Scenic Rivers Act. Source Document: 10
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Project would provide an education center for Tribal members, which are considered a minority population. As discussed throughout this EA, the Project would not result in substantial, adverse environmental effects; therefore, the Project would not result in disproportionately high and adverse effects on low-income or minority populations.

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
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	<p>The project site is Tribal trust land where land uses are determined by the Tribe. The Project is an education center, which is consistent with the adjacent recreation center on Tribal land. The Project would not conflict with the open space use to the west, located off Tribal land and within the jurisdiction of Lake County. The proposed education center will be of a similar scale to existing buildings in the vicinity.</p> <p>Source Document: Figure 2</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	3	<p>The project site is mapped as approximately 51.7 percent Cole variant clay loam and approximately 48.3 percent Clear Lake clay, 0 to 2 percent slopes. Cole variant clay loams are calcareous substrates and are usually found on floodplain steps, stream terraces and alluvial fans. Clear Lake soils are usually found in flood basins, floodplains, and in swales of drainageways.</p> <p>Generally, soils within the project site and vicinity are poorly drained. No soil limitations were encountered during the development of the existing facilities and infrastructure on the Rancheria and thus the soils onsite are considered to be suitable for development.</p> <p>The Project is located in the Manning Creek-Frontal Clear Lake Watershed (180201160306). All stormwater generated on the project site would be managed on site and thus no off-site or downstream impacts are anticipated.</p> <p>Construction activities include the routine use of potentially hazardous construction materials, such as concrete washings, oil, and grease that could spill onto the ground and dissolve into stormwater. Erosion from construction sites can also increase</p>

		sediment discharge to surface waters during storm events, thereby degrading water quality. Mitigation Measure 1 includes best management practices to reduce impacts to water quality to a less-than-significant level. Source Document: 12, 13, 14, 15
Hazards and Nuisances including Site Safety and Noise	2	All construction is expected to take place during normal weekday daytime hours to avoid nuisance noise. No hazards were identified that would affect construction activities. Source Document: 6 and 7
Energy Consumption	2	The Project is not anticipated to result in energy inefficiencies. Based on the scale of development, the Project would not have a substantial, adverse effect on energy consumption.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	The Project would not adversely impact regional employment and income patterns.
Demographic Character Changes, Displacement	2	The Project would not result in significant changes to the demographics of the area or displace any existing homes.

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	1	The project site is located within the Lakeport Unified School District. The school district contains Lakeport Elementary School, Terrace Middle School, Clear Lake High School, and Lakeport Alternative Education Center. The Big Valley Rancheria Preschool is available for tribal members. Currently the Big Valley Rancheria Gym has after school programs and summer programs for children, and open gym activities. The proposed education center would serve existing Tribal residents and would not result in the need for new or expanded educational or cultural facilities. The project would result in a beneficial impact as the proposed education center would provide space for educational activities.
Commercial Facilities	2	A Grocery Outlet, restaurants, and other commercial facilities (lumber, auto parts, movies, DMV) are located in Lakeport less than 2 miles northwest of the project site. The project site is served by existing commercial facilities and would not result in the need for new or expanded commercial facilities.
Health Care and Social Services	2	Sutter Lakeside Hospital is approximately 7 miles away, on the northwestern side of Clear Lake. Lake County Tribal Health is also located in Lakeport. There are numerous health care and social services located in Lakeport including health departments, children's services, respite care, and welfare. The project site is

Environmental Assessment Factor	Impact Code	Impact Evaluation
		served by existing health care facilities and social services and would not result in the need for new or expanded facilities.
Solid Waste Disposal/ Recycling	2	The Lake County Transfer and Recycling facility is approximately 0.80 miles southwest of the Project vicinity. Based on the size of the Project, the new education center is not anticipated to result in the need for new or expanded solid waste or recycling facilities. The Tribe's Solid Waste Management Program coordinated by the Big Valley Rancheria Environmental Protection Department will serve the Project.
Wastewater/ Sanitary Sewers	2	The Project will be served by the Big Valley Rancheria Water District which provides wastewater service to the existing recreation center. The Big Valley Rancheria Water Treatment Plant and Wastewater Treatment Plant were constructed in 2003 and have the capacity to serve the Project.
Water Supply	2	The Project will be served by the Big Valley Rancheria Water District, which provides drinking water service to the existing recreation center and other structures on the property. The Big Valley Community Center Public Water Supply System has the capacity to serve the project.
Public Safety- Police, Fire and Emergency Medical	2	The Sheriff's Office provides law enforcement services on the Rancheria. The closest Fire Department to the project site is the Lakeport Fire Department. The proposed education center is not anticipated to result in the need for new or expanded police, fire, or emergency medical services.
Parks, Open Space and Recreation	2	The Project area is served by several community parks. Clear Lake State Park is approximately 4 miles east of the project Site. Lakeside County Park is approximately 2.6 miles northeast of the project Site. Schools in the area and the existing Tribal recreation center also provide recreation opportunities with after school events and sports programs. The proposed education center is not anticipated to result in the need for new or expanded parks, open space, or other recreation facilities.
Transportation and Accessibility	2	Major roadways are easily accessible from the project site. The Tribe is part of the Tribal Transportation Program which provides safe and adequate transportation and public road access to and within Indian reservations and Indian lands. The development of the education center is not anticipated to result in a significant increase in traffic on local roadways as it would be utilized by Tribal members who already reside in the area. Source Document: 11

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	The Project is located on a partially developed Tribal parcel. There are no unique natural features or aquatic resources present within the project site. A biological field survey by Acorn

		Senior Biologist G.O. Graening on March 8, 2023 determined that the project site does not contain any channels or wetlands. Rumsey Slough and a tributary (Thompson Creek), are both located within 500 feet and 300 feet of the project site, respectively. Riparian habitat exists along these drainage features, however, these areas would not be impacted.
Vegetation, Wildlife	3	The 0.75-acre project site is partially developed with the Tribe's existing education building. The remainder of the site includes annual grassland which is regularly mowed and common throughout the region. Depending on the timing of construction activities, construction could impact nearby nesting birds protected by the migratory Bird Treaty Act. Mitigation Measure 2 is included to prevent impacts to nesting bird species.
Other Factors	NA	Not applicable.

Additional Studies Performed: N/A

Field Inspection (Date and completed by):

March 8, 2023 – Pedestrian survey completed by Geo Graening, Senior Biologist and Environmental Professional (ASTM Standard E1527-13) with Acorn Environmental

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

Source Documents:

1. AirNav, 2023. Lompson Field Airport. Accessed online: <https://www.airnav.com/airports/>. April 2023.
2. US Department of Housing and Urban Development, 2023. HUD Exchange. Coastal Barrier Resources. Accessed online: <https://www.hudexchange.info/programs/environmental-review/coastal-barrier-resources/#:~:text=The%20Coastal%20Barrier%20Resources%20Act,Federal%20expenditures%20and%20financial%20assistance>. December 2023.
3. FEMA, 2023. Map Panel Number 06033C0494D, effective September 29, 2005.
4. EPA 2023. Green Book. California/Nonattainment/Maintenance Status for Each County by Year for all Criteria Pollutants. Accessed online: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. March 2023.
5. California Coastal Commission 2023. Coastal Zone Boundary Maps. Accessed online: <https://www.coastal.ca.gov/maps/czb/>. April 2023.
6. Department of Toxic Substances and Control, 2023. EnviroStor database. Accessed online: <https://www.arcgis.com/home/item.html?id=aaa6a5dcf4d349ac8fd7b8e58e88f974>. April 2023.
7. State Water Resources Control Board, 2023. GeoTracker database. Accessed online: <https://geotracker.waterboards.ca.gov/>. April 2023.
8. California Department of Conservation, 2023. California Important Farmland Finder. Available online: <https://maps.conservation.ca.gov/DLRP/CIFF/>. April 2023.
9. EPA 2023. Sole Source Aquifer Map. Accessed online: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>. April 2023.

10. National Park Service, 2023. Wild and Scenic Rivers Program. Accessed online: <https://nps.maps.arcgis.com/apps/View/index.html?appid=ff42a57d0aae43c49a88dae0e353142>. April 2023.
11. Big Valley Rancheria, 2023. Big Valley Band of Pomo Indians. Tribal Transportation Program (TTP). Accessed online: <https://www.bvrancheria.com/tribal-transportation#:~:text=Big%20Valley%20Band%20of%20Pomo%20Indians&text=Established%20in%2023%20U.S.C.,and%20Alaska%20Native%20Village%20communities>. April 2023.
12. EPA 2023. How's My Waterway. Accessed online: <https://mywaterway.epa.gov/community/Osprey%20Ct,%20Lakeport,%20CA,%2095453,%20USA/overview>. April 2023.
13. US Department of Agriculture, Natural Resources Conservation Service, 2023. Accessed online: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm> April 2023.
14. National Cooperative Soil Survey, Official Series Description 2023. Clear Lake Series.
15. National Cooperative Soil Survey. Official Series Description 2023. Cole Series.
16. Archaeological Services, Inc., 1999. Cultural Resource Survey of 6.2 Acres for the Big Valley Rancheria.

Attachments:

- Attachment 1 – USFWS Species List
- Attachment 2 – 8-Step Floodplain Process Documentation
- Attachment 3 – References

List of Permits Obtained: N/A

Public Outreach [24 CFR 50.23 & 58.43]:

In accordance with HUD regulations, a public notice of the Finding of No Significant Impact and Request for Release of Funds will be published, and a 15-day comment period will begin.

Cumulative Impact Analysis [24 CFR 58.32]:

To the extent possible, this EA considered the combined effect of the Project and other foreseeable actions on the project site or in the vicinity. The Tribe has no other development plans in the vicinity of the Project which would result in the potential for incremental effects.

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

The project site is located on the Tribe's lands and was selected as it provides a reasonable location for development based on cost, existing access and utilities, and proximity to the target service population. As such, no alternative sites were considered.

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

Under the No Action Alternative, the Project would not be constructed, and the purpose and need to provide educational meeting space would not be fulfilled. The No Action Alternative does not meet the stated purpose and need of the current proposal.

Summary of Findings and Conclusions:

No significant environmental impacts were identified which would warrant preparation of an Environmental Impact Statement. All listed mitigation measures will reduce the impacts to a less-than-significant level.

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
Clean Water Act / Stormwater	<p>Mitigation Measure 1</p> <p>Best management practices (BMPS) will include, but not limited to, the following:</p> <ul style="list-style-type: none">• Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas.• Disturbed areas shall be paved or re-vegetated following construction activities to limit any bare soils.• Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the Clean Water Act (33 USC §§ 1251 to 1387).• Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater.• Fuel and vehicle maintenance areas shall be established away from all drainage courses and designed to control runoff.• Sanitary facilities shall be provided for construction workers.• Solid waste storage containers will be enclosed so that runoff cannot come into contact with the waste storage containers.

	<ul style="list-style-type: none"> • Ingress/egress from the construction area shall be inspected daily. • Street sweeping will be conducted at least weekly to remove any tracked soil. • Traffic speeds on the project site shall be restricted to 15 miles per hour to reduce soil disturbance. • Dirt, gravel, and debris piles shall be covered as needed to reduce dust and wind-blown debris.
Migratory Bird Treaty Act	<p>Mitigation Measure 2</p> <p>If construction activities will occur during the nesting season (usually March to September), pre-construction surveys for the presence of migratory birds or any nesting bird species shall be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, the appropriate wildlife agency should be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site.</p>
Historic Preservation	<p>Mitigation Measure 3</p> <p>During any ground disturbance, the Tribe will provide cultural monitors to limit impacts to incidental finds and to take additional measures should more sensitive items be unearthed during project construction.</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: Jennifer Wade Date: _____

Name/Title/Organization: Jennifer Wade, Principal, Acorn Environmental

Certifying Officer Signature: Flaman McCloud Jr. Date: 2-5-24

Name/Title: Flaman McCloud Jr., Chairman

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).

Attachment 1
USFWS Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

March 07, 2023

Project Code: 2023-0052991

Project Name: Big Valley Band of Pomo Indians

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

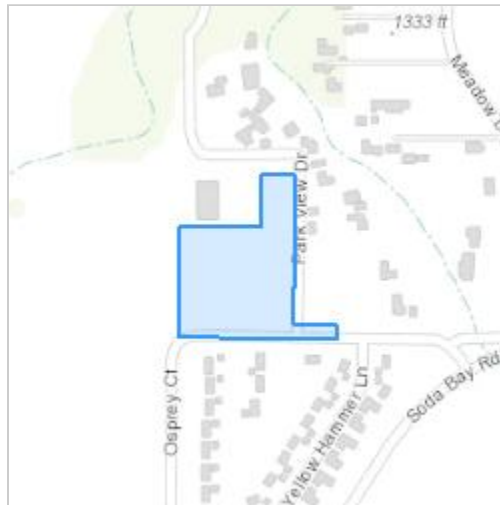
(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0052991
Project Name: Big Valley Band of Pomo Indians Community Center
Project Type: New Constr - Above Ground
Project Description:

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.01554405,-122.89349748409975,14z>



Counties: Lake County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

BIRDS

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

INSECTS

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

FLOWERING PLANTS

NAME	STATUS
Burke's Goldfields <i>Lasthenia burkei</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: Acorn Environmental
Name: G.O. Graening
Address: 520 Wallingford Lane
City: Folsom
State: CA
Zip: 95630
Email: gggraening@gmail.com
Phone: 9164525442

Attachment 2

8-Step Floodplain Process Documentation

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT: 8-STEP PROCESS

Big Valley Band of Pomo Indians
2726 Mission Rancheria Road
Lakeport, CA 95453
707-263-3924

This Floodplain 8-Step Process document addresses the requirements of Executive Order (E.O.) 11988, "Floodplain Management" as provided by 24 CFR §55.20. This project does not meet any of the exceptions at 24 CFR 55.12 and therefore requires an 8-step analysis of the direct and indirect impacts associated with the project.

Step 1: Determine whether the action is located in a 100-year floodplain (or a 500-year floodplain for critical actions).

The Proposed Action, approval of Part 58 funding, would release funds to support the design and construction of a 7,200 square-foot education center on a 0.75-acre project site. The project site is within a 100-year floodplain associated with Clear Lake. The project site is located in Zone AO and Zone AE as indicated on FEMA Flood Insurance Rate Map (FIRM) Map Panel Number 06033C0494D, effective September 29, 2005, which is attached to this document (Figure 1). Zone AO and AE are defined as areas of 1% annual flood hazard.

Step 2: Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.

A public notice describing the project was published in the Lake County Record-Bee, a local and regional paper of general circulation, on December 20, 2023. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of floodplain acres involved, and responsible entity contact information. The ad targeted local residents, including those in the floodplain. A copy of the proof of publication for the notice is attached to this document (Attachment 2). The comment period extended 16 days to January 5, 2024. No comments were received in response to the public notice.

Step 3: Identify and evaluate practicable alternatives.

44 CFR §9.9(b) requires that an agency identify and evaluate practicable alternatives to carrying out a proposed action in floodplains or wetlands, including:

- 1) Alternative sites outside the floodplain or wetland
- 2) Alternative actions which serve essentially the same purpose as the proposed action, but which have less potential to affect or be affected by the floodplain or wetlands
- 3) No action, in which the floodplain and wetland site itself must be a practicable location in light of the factors set out in this section

The Tribe's project site selection criteria are:

- 1) The project cannot displace existing homes, businesses, or Tribal facilities

- 2) The project must be located on the Tribe's trust lands in order for the Tribe to exercise land use authority over the project and to ensure access by Tribal members (the proposed service population)
- 3) The project must be located in proximity to existing utilities to be economically feasible

Alternative Sites Outside the Floodplain

There are no feasible sites outside of the floodplain that meet the project site selection criteria as all trust land within the jurisdiction of the Tribe is within the floodplain. Additionally, the Tribe does not own suitable fee parcels for development of an education center outside of the floodplain.

Alternative Actions that Serve the Same Purpose

The Tribe does not have existing facilities that are available (not in use for another purpose) and could serve the same intended purpose and need of providing a dedicated space for the Tribe's Education Department, which provides youth with tutoring, homework assistance, healthy after school activities, a comprehensive summertime program, and programming that supports the reclaiming of their linguistic and cultural heritage.

No Action or Alternative Actions that Serve the Same Purpose

Under the No Action Alternative, the project would not be constructed, and the purpose and need to provide educational facilities would not be fulfilled. Without HUD funding, the Tribe would not be able to develop the education center at this time.

Step 4: Identify potential direct and indirect impacts associated with floodplain development.

The 1% annual chance floodplain in the project vicinity extends about three miles from the shores of Clear Lake. This floodplain extends across the entire Reservation, adjacent unincorporated portions of Lake County, and parts of the City of Lakeport. The floodplain covers approximately 11 square miles. Most of this floodplain is developed, primarily with agricultural and residential development. The 7,200 square foot education center represents a minimal portion of the overall floodplain (less than 0.002% of the overall floodplain footprint or surface area) and thus is not anticipated to create significant alterations to the floodplain.

Sloughs and low-lying lands near Clear Lake within this floodplain are undeveloped and maintain habitat and floodwater storage functions. The project site is not located in a portion of the floodplain that provides natural habitat values. A biological field survey by Acorn Senior Biologist G.O. Graening on March 8, 2023, determined that the project site does not contain any channels or wetlands. Habitat on the project site is limited to annual grasslands and ruderal/developed areas. The site does not provide suitable habitat for federally-listed species or critical habitat pursuant to the Endangered Species Act.

The direct and indirect impacts of the project have been evaluated in an Environmental Assessment for the project, prepared pursuant to the National Environmental Policy Act (NEPA) and HUD's Environmental Review Procedures at 24 CFR Part 58. For most environmental issue areas, the project would have no adverse impacts. The project would result in beneficial community and cultural impacts. Potential minor adverse impacts include impacts to water quality from soil erosion during construction and impacts to nearby nesting bird species during construction. Mitigation includes best management practices to reduce impacts to water quality during construction and a pre-construction survey to prevent impacts to nesting bird species if construction begins during the nesting season.

Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.

The following project design elements and mitigation measures are proposed to minimize the potential adverse impacts to lives, property, and natural values within the floodplain:

- 1) The project has been designed to be constructed at least two feet above the estimated flood elevation, and thus would minimize risks to life and property
- 2) The Tribe would maintain flood insurance for the proposed building
- 3) Mitigation includes best management practices to reduce impacts to water quality during construction, including minimizing the potential for erosion, sedimentation, or accidental release of hazardous materials
- 4) Mitigation includes a pre-construction survey to prevent impacts to nesting bird species if construction begins during the nesting season

It should be noted that the project site has limited natural or beneficial flood values beyond infrequent and temporary storage during large flood events.

Step 6: Reevaluate the alternatives.

The Tribe has reevaluated the alternatives to building in the floodplain. As discussed in Step 3, there are no feasible alternatives to the project that would meet the purpose and need and be located outside of the floodplain. The project has been designed to minimize impacts to lives, property and natural values as discussed in Step 5, above.

Step 7: Determination of no practicable alternative.

It is the Tribe's determination that there is no practicable alternative to locating the project in the floodplain. This is due to: 1) the need to locate the project on the Tribe's trust lands over which the Tribe exercises land use authority, 2) the need to locate the project on the Tribe's trust lands to ensure access for Tribal members, 3) the location of the Tribe's trust lands entirely within the floodplain, 4) the need to develop the project without displacing homes, businesses, or Tribal facilities, 5) the site's access to existing infrastructure, 6) the need to construct an economically feasible project, 7) the ability to mitigate and minimize risks to life and property, 8) the ability to minimize environmental impacts through project design and mitigation, 9) the lack of natural resources on the project site.

A final notice was published and posted consistent with the prior notice in the Lake County Record-Bee, a local and regional paper of general circulation, on January 17, 2024. A copy of the proof of publication for the notice is attached to this document. The notice explains the reasons why the project must be located in the floodplain, offers a list of alternatives considered at Steps 3 and 6, and describes all mitigation measures at Step 5 taken to minimize adverse impacts. The notice and this 8-Step Review document will become part of the EA documentation when it is finalized in accordance with NEPA and HUD's Environmental Review Procedures at 24 CFR Part 58.

Step 8: Implement the proposed action.

The Tribe will ensure that this plan, as modified and described above, is executed and necessary language will be included in all agreements with participating parties. The Tribe will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur nor unnecessary risks are taken. The flood insurance requirement for the life of the property will be monitored by the Tribe.



Source: FEMA FIRM Panel 06033C0494D (9/29/2005)

FIGURE 1
FLOOD HAZARD MAP

Lake County Publishing
Lake County Record-Bee

2150 S. Main St., PO Box 849
Lakeport, CA 95453
(707) 263-5636
advertising@record-bee.com

3857927

ACORN ENVIRONMENTAL
5170 GOLDEN FOORHILL PARKWAY
EL DORADO HILLS, CA 95762

**Affidavit of Publication
STATE OF CALIFORNIA
County of Lake**

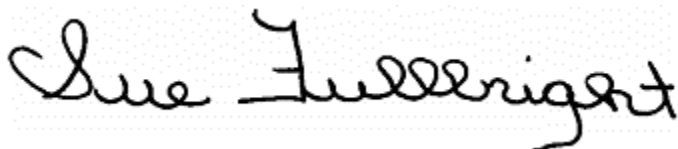
I, Sue Fullbright, being first duly sworn, depose and say: That at and during all the dates and times herein mentioned I was, and now am the legal clerk of the Lake County Record-Bee, a newspaper published for the dissemination of local or telegraphic news and intelligence of a general character, having a bona fide subscription list of paying subscribers, and which is, and has been, established, printed and published at regular intervals, to-wit: Daily (except Sunday and Monday) in the City of Lakeport, County and State aforesaid, for more than one year preceding the date of the publication below mentioned, a newspaper of general circulation, as that term is defined by Section 6,000 et al, of the Government Code of the State of California, and is not and was not during any said times, a newspaper devoted to the interests or denomination, or for any members of such classes, professions, trades, callings, races or denominations.

That at, and during all of said dates and times herein mentioned, affiant had and now has knowledge and charge of all notes and advertisements appearing in said newspaper; that the notice of which the annexed is printed copy, was published each week in the regular and entire issue of one or more number of the said newspaper during the period and times of publication thereof, to-wit:

For 1 issue published therein on the following date, viz: 12/20/2023;

that said notice was published in said newspaper proper and not in a supplement; that said notice, as so published, was set in type not smaller than nonpareil, and was preceded with words printed in black face type not smaller than nonpareil, describing and expressing in general terms the purport and character of said notice, as fully appears from the exact copy of said notice, which is hereto annexed as aforesaid.

Executed this 20th day of December, 2023 at Lakeport, California. I hereby declare under penalty of perjury that I have read the foregoing and that it is true and correct.



Sue Fullbright, Legal Clerk

Legal No. **0006798349**

**Early Notice and Public Review of a Proposed
Activity in a 100-Year Floodplain**

This is to give notice that the Big Valley Band of Pomo Indians (Tribe) has determined that the following proposed action under the Indian Community Development Block Grant (ICDBG) Program is located in the 100-year floodplain, and the Tribe will be identifying and evaluating practicable alternatives to locating the action in the floodplain and the potential impacts on the floodplain from the proposed action, as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands.

The Project consists of the development of a 7,200 square-foot education center on a 0.75-acre project site on the Tribe's Reservation. The education center would provide classrooms, offices, bathrooms, kitchen, cafeteria, reception and storage space. The project site is within Zone AO (2 feet) and Zone AE (EL 1331), which are 1% annual chance of flood hazard areas. The floor of the proposed building would be elevated at least two feet above the estimated flood elevation.

The 1% annual chance floodplain extends about three miles from the shores of Clear Lake. This floodplain extends across the entire Reservation, adjacent unincorporated portions of Lake County and parts of the City of Lakeport. Most of this floodplain is developed, primarily with agricultural and residential development. Sloughs and low lying lands near Clear Lake within this floodplain are undeveloped and maintain habitat and floodwater storage functions. The floodplain covers approximately 11 square miles. Funds administered through the ICDBG Program will be used to design and construct the proposed education center.

The proposed project is located on the Tribe's Reservation adjacent to the Tribe's existing Recreation Center at 1002 Osprey Court, approximately one mile southeast of the City of Lakeport in unincorporated Lake County, California. The specific design and location of the education center within the 0.75-acre project site has not been determined as ICDBG Program funding will be used for design.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplain, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Second, an adequate public notice program can be an important public educational tool. The dissemination of information and request for public comment about floodplains can facilitate and enhance Federal efforts to

reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

Written comments must be received by the Tribe at the following address on or before **January 5, 2024:**

Attention: Sally Peterson, Housing Director,
Big Valley Band of Pomo Indians, 2726 Mission
Rancheria Road, Lakeport, CA 95453.

Comments may also be submitted via email
to speterson@big-valley.net. For additional
information please contact: (707) 263-3924.

Notice Date: December 20, 2023

Ukiah Daily Journal

617 S. State St
Ukiah, California 95482
(707) 468-3500
sfullbright@ukiahdj.com

3857927

ACORN ENVIRONMENTAL
5170 GOLDEN FOORHILL PARKWAY
EL DORADO HILLS, CA 95762

PROOF OF PUBLICATION (2015.5 C.C.P.)

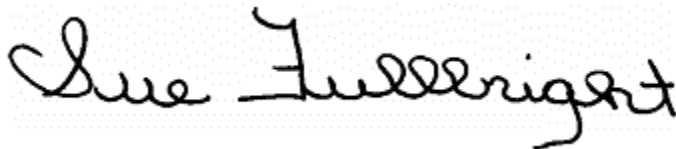
STATE OF CALIFORNIA COUNTY OF MENDOCINO

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Ukiah Daily Journal, a newspaper of general circulation, printed and published daily in the City of Ukiah, County of Mendocino and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Mendocino, State of California, under the date of September 22, 1952, Case Number 9267; that the notice, of which the annexed is a printed copy (set in type not smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

01/17/2024

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Dated at Ukiah, California,
January 18th, 2024



Sue Fullbright, LEGAL CLERK

Legal No. **0006803383**

FINAL NOTICE AND PUBLIC EXPLANATION OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN

Big Valley Band of Pomo Indians
2726 Mission Rancheria Road
Lakeport, CA 95453
707-263-3924

This is to give notice that the Big Valley Band of Pomo Indians (hereafter referred to as the "Tribe") has conducted an evaluation as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR §55.20 Subpart C Procedures for Making Determinations on Floodplain Management and Wetlands Protection. Funds administered through the Indian Community Development Block Grant (ICDBG) Program are proposed to be used to design and construct a project known as the Big Valley Education Center. The Project consists of the development of a 7,200 square-foot education center on a 0.75-acre project site on the Tribe's Reservation in Lake County. The education center would provide classrooms, offices, bathrooms, kitchen, cafeteria, reception, and storage space. The project site is within Zone AO (2 feet) and Zone AE (EL 1331), which are 1% annual chance of flood hazard areas. The 1% annual chance floodplain extends about three miles from the shores of Clear Lake. This floodplain extends across the entire Reservation, adjacent unincorporated portions of Lake County and parts of the City of Lakeport. Most of this floodplain is developed, primarily with agricultural and residential development. Sloughs and low-lying lands near Clear Lake within this floodplain are undeveloped and maintain habitat and floodwater storage functions. The floodplain covers approximately 11 square miles.

The Tribe has considered the following factors, alternatives, and mitigation measures: (i) the project must be located on the Tribe's trust lands in order for the Tribe to exercise land use authority over the project and to ensure access by Tribal members (the proposed service population); the project must be located in proximity to existing utilities to be economically feasible (ii) alternatives considered and reasons for nonselection: Alternative Sites Outside of the Floodplain is impracticable as the entire Reservation is located within the floodplain and the Tribe does not own fee parcels suitable for development of an education center outside of the Reservation; Alternative Actions that Serve the Same Purpose is impracticable as the Tribe does not have existing facilities that are available and could serve the same intended purpose and need; No Action Alternative is impracticable because the project would not be constructed, and the purpose and need to provide an education center would not be fulfilled (iii) project components and mitigation measures to be taken to minimize the potential adverse impacts to lives, property and natural values within the floodplain: the project has been designed to be constructed at least two feet above the estimated flood elevation; the Tribe would maintain flood insurance for the proposed building; mitigation includes best

management practices to reduce impacts to water quality during construction, including minimizing the potential for erosion, sedimentation, or accidental release of hazardous materials; and mitigation includes a pre-construction survey to prevent impacts to nesting bird species if construction begins during the nesting season.

The Tribe has reevaluated the alternatives to building in the floodplain and has determined that it has no practicable alternative. Environmental files that document compliance with steps 3 through 6 of Executive Order 11988 are available for public review upon request. Requests should be directed to Elizabeth Lincoln at ehowe@big-valley.net or (707) 263-3924.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Second, an adequate public notice program can be an important public educational tool. The dissemination of information about floodplains can facilitate and enhance federal efforts to reduce the risks associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

Written comments must be received by the Tribe by January 24, 2024. Any individual, group, or agency may submit written comments to Elizabeth Lincoln, Economic Development Director, Big Valley Band of Pomo Indians, 2726 Mission Rancheria Road, Lakeport, CA 95453 or to ehowe@big-valley.net.
Date: January 17, 2024

Attachment 3

References



[Airports](#)
[NavAids](#)
[Airspace Fixes](#)
[Aviation Fuel](#)
[Hotels](#)
[iPhone App](#)
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1633 users online [LOGIN](#)

102 Lampson Field Airport

Lakeport, California, USA



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Location

FAA Identifier: 102

Lat/Long: 38-59-26.2000N 122-54-02.6000W

38-59.436667N 122-54.043333W

38.9906111,-122.9007222

(estimated)

Elevation: 1380.1 ft. / 420.7 m (surveyed)

Variation: 16E (1990)

From city: 3 miles S of LAKEPORT, CA

Time zone: UTC -7 (UTC -8 during Standard Time)

Zip code: 95453



Airport Operations

Airport use: Open to the public

Activation date: 10/1941

Control tower: no

ARTCC: OAKLAND CENTER

FSS: OAKLAND FLIGHT SERVICE STATION

NOTAMs facility: OAK (NOTAM-D service available)

Attendance: UNATNDD

Pattern altitude: 2180.1 ft. MSL

Wind indicator: lighted

Segmented circle: yes

Lights: ACTVT MIRL RWY 10/28 - CTAF.

Beacon: white-green (lighted land airport)

Operates sunset to sunrise.



Road maps at: [MapQuest](#) [Bing](#) [Google](#)

Aerial photo

WARNING: Photo may not be current or correct

Airport Communications

CTAF/UNICOM: 122.8

WX AWOS-3: 118.35 (707-262-0380)

WX ASOS at UKI (16 nm NW): 119.275 (707-462-7343)

APCH/DEP CTL SVC PRVDD BY OAKLAND ARTCC (ZOA) ON FREQS 127.8/353.5 (UKIAH RCAG).

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
ENI r086/17.8	MENDOCINO VORTAC	112.30	16E

Airport Services

Fuel available: 100LL

Parking: tiedowns

Airframe service: MAJOR

Powerplant service: MAJOR

Bottled oxygen: NONE

Bulk oxygen: NONE

Runway Information

Runway 10/28

Dimensions: 3600 x 60 ft. / 1097 x 18 m	
Surface: asphalt, in good condition	
Weight bearing capacity: Single wheel: 30.0	
Runway edge lights: medium intensity	
RUNWAY 10	RUNWAY 28
Latitude: 38-59.580570N	38-59.292057N
Longitude: 122-54.374978W	122-53.711147W
Elevation: 1380.1 ft.	1370.8 ft.
Traffic pattern: left	right
Runway heading: 103 magnetic, 119 true	283 magnetic, 299 true
Displaced threshold: no	85 ft.
Markings: basic, in good condition	basic, in good condition
Visual slope indicator:	2-light PAPI on left (4.00 degrees glide path)
Runway end identifier lights: no	no



Photo by Nikhil Kalyankar
Photo taken 11-Oct-2009

Do you have a better or more recent aerial photo of Lampson Field Airport that you would like to share? If so, please [send us your photo](#).

Sectional chart



Airport distance calculator

Flying to Lampson Field Airport?
Find the distance to fly.

From to 102

CALCULATE DISTANCE

Sunrise and sunset

Times for 24-Apr-2023		
	Local (UTC-7)	Zulu (UTC)
Morning civil twilight	05:55	12:55
Sunrise	06:23	13:23
Sunset	19:56	02:56
Evening civil twilight	20:24	03:24

Touchdown point: yes, no lights	yes, no lights
Obstructions: 30 ft. trees, 700 ft.	15 ft. road, 236 ft.
from runway, 290	from runway, 133
ft. right of	ft. right of
centerline, 16:1	centerline, 2:1
slope to clear	slope to clear
	APCH RATIO TO
	DSPLCD THR 21:1.

Current date and time

Zulu (UTC)	24-Apr-2023 19:49:59
Local (UTC-7)	24-Apr-2023 12:49:59

METAR

KUKI 241856Z AUTO
16nm NW VRB06KT 10SM CLR
19/06 A3002 RMK
AO2 SLP159
T01890061

KSTS 707-573-8393
30nm S 241853Z 02005KT
10SM CLR 22/05
A2997 RMK AO2
SLP144 T02220050

TAF

KUKI 241745Z 2418/2518
16nm NW 33006KT P6SM SKC
FM242100
30010G17KT P6SM
SKC FM250300
VRB04KT P6SM
FEW300 FM251200
00000KT P6SM
SCT300 FM251500
VRB03KT P6SM
SCT250

NOTAMs

🔗 [Click for the latest NOTAMs](#)
NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

Airport Ownership and Management from official FAA records

Ownership: Publicly-owned

Owner: LAKE COUNTY

255 N FORBES ST

LAKEPORT, CA 95453

Phone 707-263-2341

Manager: CELIA A. HOBERG

255 N FORBES ST #309

LAKEPORT, CA 95453

Phone 707-263-2341

PRINCIPAL CIVIL ENGINEER; OFFICE IN LAKEPORT, CA.

Airport Operational Statistics

Aircraft based on the	Aircraft operations: avg 209/day *
field: 31	48% transient general aviation
Single engine airplanes: 22	48% local general aviation
Gliders airplanes: 9	3% military
	* for 12-month period ending 31 December 2021

Additional Remarks

- FOR CD CTC OAKLAND ARTCC AT 510-745-3380.

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should [download](#) the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.

FAA instrument procedures published for use from 20 April 2023 at 0901Z to 18 May 2023 at 0900Z.

IAPs - Instrument Approach Procedures

RNAV (GPS)-A

[download](#) (358KB)

Departure Procedures

LAKEPORT THREE (RNAV)

[download](#) (137KB)

NOTE: Special Take-Off Minimums/Departure Procedures apply

[download](#) (347KB)

Other nearby airports with instrument procedures:

[O60](#) - Cloverdale Municipal Airport (14 nm S)[KUKI](#) - Ukiah Municipal Airport (16 nm NW)[KSTS](#) - Charles M Schulz - Sonoma County Airport (29 nm S)[O28](#) - Willits Municipal Airport - Ells Field (35 nm NW)[KLLR](#) - Little River Airport (43 nm NW)

FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
		no information available	100LL	
Westgate Petroleum	707-263-6512	If you are affiliated with Westgate Petroleum and would like to show here your services, contact info, web link, logo, and more, click here	SS \$6.35 Updated 17-Apr-2023	not yet rated write
			SS= Self service	
			UPDATE PRICES	

Would you like to see your business listed on this page?

If your business provides an interesting product or service to pilots, flight crews, aircraft, or users of the Lampson Field Airport, you should consider listing it here. To start the listing process, click on the button below

[ADD YOUR BUSINESS OR SERVICE](#)

Other Pages about Lampson Field Airport

[ADD A LINK](#)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > Coastal Barrier Resources

Coastal Barrier Resources

Introduction

The Coastal Barrier Resources Act (CBRA) of 1982 designated relatively undeveloped coastal barriers along the Atlantic and Gulf coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS) and made these areas ineligible for most new Federal expenditures and financial assistance. The Coastal Barrier Improvement Act (CBIA) of 1990 reauthorized the CBRA and expanded the CBRS to include undeveloped coastal barriers along the Florida Keys, Great Lakes, Puerto Rico, and U.S. Virgin Islands.

There are a total of 584 system units, encompassing approximately 1.3 million acres of land and associated aquatic habitat. The system units are generally comprised of private lands that were relatively undeveloped at the time of their designation within the CBRS. The boundaries of these units are generally intended to follow geomorphic, development, or cultural features.

The law encourages the conservation of hurricane-prone, biologically rich coastal barriers by restricting Federal expenditures that encourage development. HUD financial assistance may not be used for most activities in CBRS units.

HUD Guidance

Is the project located in a Coastal Barrier Resource System (CBRS) unit? With very limited exceptions, federal assistance is not allowed for projects in a CBRS unit. Federal monies can be spent within CBRS units only for certain exempted activities (e.g., a nature trail) after consultation with the FWS (see 16 USC 3505 for exceptions to limitations on expenditures).

Compliance and Documentation

The environmental review record should contain **one** of the following:

- A general location map establishing there are no Coastal Barrier Resource System units in the city or county
- A map issued by the FWS or FEMA (or from their website) showing that the proposed project is not located within a designated Coastal Barrier Resource System Unit. The FEMA map panel number must be cited within the Environmental Review Record
- Approval of the project from the FWS, including all prior correspondence

[View Coastal Barrier Resources - Worksheet \(/resources/documents/Coastal-Barrier-Resources-Worksheet.docx\).](#)

[View Coastal Barrier Resources - Partner Worksheet \(/resources/documents/Coastal-Barrier-Resources-Act-Partner-Worksheet.docx\).](#)



Source: FEMA FIRM Panel 06033C0494D (9/29/2005)

FIGURE 1
FLOOD HAZARD MAP



You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of March 31, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

CALIFORNIA

Important Notes

Download National Dataset: dbf | xls | Data dictionary (PDF)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
CALIFORNIA								
Alameda County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	1,510,271	06/001
Alameda County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	1,510,271	06/001
Alameda County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	1,510,271	06/001
Alameda County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	1,510,271	06/001
Alameda County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	715,578	06/001
Alameda County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	1,510,271	06/001
Amador County	8-Hour Ozone (1997)-NAAQS revoked	Amador and Calaveras Cos. (Central Mountain Cos.), CA	0405060708091011121314	//	Moderate	Whole	38,091	06/005
Amador County	8-Hour Ozone (2015)	Amador County, CA	181920212223	//	Marginal	Whole	38,091	06/005
Butte County	1-Hour Ozone (1979)-NAAQS revoked	Chico, CA	92939495969798990001020304	//	Section 185A	Whole	220,000	06/007
Butte County	8-Hour Ozone (1997)-NAAQS revoked	Chico, CA	0405060708091011121314	//	Marginal	Whole	220,000	06/007
Butte County	8-Hour Ozone (2008)	Chico (Butte County), CA	121314151617181920212223	//	Marginal	Whole	220,000	06/007
Butte County	8-Hour Ozone (2015)	Butte County, CA	181920212223	//	Marginal	Whole	220,000	06/007
Butte County	Carbon Monoxide (1971)	Chico, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	86,963	06/007
Butte County	PM-2.5 (2006)	Chico, CA	091011121314151617	08/10/2018	Moderate	Part	217,626	06/007
Calaveras County	8-Hour Ozone (1997)-NAAQS revoked	Amador and Calaveras Cos. (Central Mountain Cos.), CA	0405060708091011121314	//	Moderate	Whole	45,578	06/009
Calaveras County	8-Hour Ozone (2008)	Calaveras County, CA	121314151617181920212223	//	Marginal	Whole	45,578	06/009

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Calaveras County	8-Hour Ozone (2015)	Calaveras County, CA	181920212223	//	Marginal	Whole	45,578	06/009
Contra Costa County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	1,049,025	06/013
Contra Costa County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	1,049,025	06/013
Contra Costa County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	1,049,025	06/013
Contra Costa County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	1,049,025	06/013
Contra Costa County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	848,335	06/013
Contra Costa County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	1,049,025	06/013
El Dorado County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Part	143,832	06/017
El Dorado County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Part	151,823	06/017
El Dorado County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Part	150,517	06/017
El Dorado County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Part	150,297	06/017
El Dorado County	Carbon Monoxide (1971)	Lake Tahoe South Shore, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	43,110	06/017
El Dorado County	PM-2.5 (2006)	Sacramento, CA	091011121314151617181920212223	//	Moderate	Part	144,214	06/017
Fresno County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	930,450	06/019
Fresno County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	930,450	06/019
Fresno County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	930,450	06/019
Fresno County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	930,450	06/019
Fresno County	Carbon Monoxide (1971)	Fresno, CA	929394959697	06/01/1998	Moderate > 12.7ppm	Part	631,483	06/019
Fresno County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	930,450	06/019
Fresno County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	930,450	06/019
Fresno County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	930,450	06/019
Fresno County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	930,450	06/019
Imperial County	1-Hour Ozone (1979)-NAAQS revoked	Imperial County, CA	92939495969798990001020304	//	Section 185A	Whole	174,528	06/025
Imperial County	8-Hour Ozone (1997)-NAAQS revoked	Imperial County, CA	0405060708091011121314	//	Moderate	Whole	174,528	06/025

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Imperial County	8-Hour Ozone (2008)	Imperial County, CA	121314151617181920212223	//	Moderate	Whole	174,528	06/025
Imperial County	8-Hour Ozone (2015)	Imperial County, CA	181920212223	//	Marginal	Whole	174,528	06/025
Imperial County	PM-10 (1987)	Imperial Valley, CA	92939495969798990001020304050607080910111213141516171819	10/19/2020	Serious	Part	146,905	06/025
Imperial County	PM-2.5 (2006)	Imperial County, CA	091011121314151617181920212223	//	Moderate	Part	154,061	06/025
Imperial County	PM-2.5 (2012)	Imperial County, CA	151617181920212223	//	Moderate	Part	154,061	06/025
Inyo County	PM-10 (1987)	Coso Junction, CA	929394959697989900010203040506070809	10/04/2010	Moderate	Part	7,333	06/027
Inyo County	PM-10 (1987)	Inyo County; Owens Valley planning area, CA	9293949596979899000102030405060708091011121314151617181920212223	//	Serious	Part	7,333	06/027
Kern County	1-Hour Ozone (1979)-NAAQS revoked	East Kern County, CA	010203	06/21/2004	Serious	Part	141,398	06/029
Kern County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Part	698,229	06/029
Kern County	8-Hour Ozone (1997)-NAAQS revoked	Kern County (Eastern Kern), CA	0405060708091011121314	//	Moderate	Part	95,314	06/029
Kern County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Part	710,558	06/029
Kern County	8-Hour Ozone (2008)	Kern County (Eastern Kern), CA	121314151617181920212223	//	Severe 15	Part	95,176	06/029
Kern County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Part	710,337	06/029
Kern County	8-Hour Ozone (2015)	Kern County (Eastern Kern), CA	181920212223	//	Serious	Part	95,066	06/029
Kern County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Part	709,869	06/029
Kern County	Carbon Monoxide (1971)	Bakersfield, CA	929394959697	06/01/1998	Not Classified	Part	468,092	06/029
Kern County	PM-10 (1987)	Indian Wells, CA	9293949596979899000102	06/06/2003	Moderate	Part	15,449	06/029
Kern County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Part	698,229	06/029
Kern County	PM-10 (1987)	East Kern County, CA	9293949596979899000102030405060708091011121314151617181920212223	//	Serious	Part	125,950	06/029
Kern County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Part	710,137	06/029
Kern County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Part	710,137	06/029
Kern County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Part	710,137	06/029
Kings County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	152,982	06/031
Kings County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	152,982	06/031
Kings County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	152,982	06/031
Kings County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	152,982	06/031
Kings County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	152,982	06/031

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Kings County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	152,982	06/031
Kings County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	152,982	06/031
Kings County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	152,982	06/031
Los Angeles County	1-Hour Ozone (1979)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	92939495969798990001020304	//	Extreme	Part	9,512,219	06/037
Los Angeles County	1-Hour Ozone (1979)-NAAQS revoked	Southeast Desert Modified AQMA, CA	92939495969798990001020304	//	Severe-17	Part	306,386	06/037
Los Angeles County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles and San Bernardino Counties (Western Mojave Desert), CA	0405060708091011121314	//	Severe 15	Part	378,570	06/037
Los Angeles County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	0405060708091011121314	//	Extreme	Part	9,441,036	06/037
Los Angeles County	8-Hour Ozone (2008)	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	121314151617181920212223	//	Severe 15	Part	378,742	06/037
Los Angeles County	8-Hour Ozone (2008)	Los Angeles-South Coast Air Basin, CA	121314151617181920212223	//	Extreme	Part	9,442,967	06/037
Los Angeles County	8-Hour Ozone (2015)	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	181920212223	//	Severe 15	Part	377,429	06/037
Los Angeles County	8-Hour Ozone (2015)	Los Angeles-South Coast Air Basin, CA	181920212223	//	Extreme	Part	9,428,411	06/037
Los Angeles County	Carbon Monoxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697989900010203040506	06/11/2007	Serious	Part	9,512,219	06/037
Los Angeles County	Lead (2008)	Los Angeles County-South Coast Air Basin, CA	1011121314151617181920212223	//		Part	9,436,927	06/037
Los Angeles County	Nitrogen Dioxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697	09/22/1998	Primary	Part	9,512,219	06/037
Los Angeles County	PM-10 (1987)	Riverside, Los Angeles, Orange, & San Bernardino Counties; South Coast Air Basin, CA	929394959697989900010203040506070809101112	07/26/2013	Serious	Part	9,512,219	06/037
Los Angeles County	PM-2.5 (1997)	Los Angeles-South Coast Air Basin, CA	05060708091011121314151617181920212223	//	Moderate	Part	9,438,565	06/037
Los Angeles County	PM-2.5 (2006)	Los Angeles-South Coast Air Basin, CA	091011121314151617181920212223	//	Serious	Part	9,438,565	06/037

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Los Angeles County	PM-2.5 (2012)	Los Angeles-South Coast Air Basin, CA	151617181920212223	//	Serious	Part	9,438,565	06/037
Madera County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	150,865	06/039
Madera County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	150,865	06/039
Madera County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	150,865	06/039
Madera County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	150,865	06/039
Madera County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	150,865	06/039
Madera County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	150,865	06/039
Madera County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	150,865	06/039
Madera County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	150,865	06/039
Marin County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	252,409	06/041
Marin County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	252,409	06/041
Marin County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	252,409	06/041
Marin County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	252,409	06/041
Marin County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	219,393	06/041
Marin County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	252,409	06/041
Mariposa County	8-Hour Ozone (1997)-NAAQS revoked	Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	0405060708091011121314	//	Moderate	Whole	18,251	06/043
Mariposa County	8-Hour Ozone (2008)	Mariposa County, CA	121314151617181920212223	//	Moderate	Whole	18,251	06/043
Mariposa County	8-Hour Ozone (2015)	Mariposa County, CA	181920212223	//	Moderate	Whole	18,251	06/043
Merced County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	255,793	06/047
Merced County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	255,793	06/047
Merced County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	255,793	06/047
Merced County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	255,793	06/047
Merced County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	255,793	06/047

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Merced County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	255,793	06/047
Merced County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	255,793	06/047
Merced County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	255,793	06/047
Mono County	PM-10 (1987)	Mono County; Mammoth Lake planning area, CA	9293949596979899000102030405060708091011121314	11/04/2015	Moderate	Part	7,133	06/051
Mono County	PM-10 (1987)	Mono Basin, CA	93949596979899000102030405060708091011121314151617181920212223	//	Moderate	Part	285	06/051
Monterey County	1-Hour Ozone (1979)-NAAQS revoked	Monterey Bay, CA	9293949596	03/18/1997	Moderate	Whole	415,057	06/053
Napa County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	136,484	06/055
Napa County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	136,484	06/055
Napa County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	136,484	06/055
Napa County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	136,484	06/055
Napa County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	123,217	06/055
Napa County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	136,484	06/055
Nevada County	8-Hour Ozone (1997)-NAAQS revoked	Nevada County (Western part), CA	0405060708091011121314	//	Moderate	Part	82,393	06/057
Nevada County	8-Hour Ozone (2008)	Nevada County (Western part), CA	121314151617181920212223	//	Serious	Part	82,107	06/057
Nevada County	8-Hour Ozone (2015)	Nevada County (Western part), CA	181920212223	//	Serious	Part	82,042	06/057
Orange County	1-Hour Ozone (1979)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	92939495969798990001020304	//	Extreme	Whole	3,010,232	06/059
Orange County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	0405060708091011121314	//	Extreme	Whole	3,010,232	06/059
Orange County	8-Hour Ozone (2008)	Los Angeles-South Coast Air Basin, CA	121314151617181920212223	//	Extreme	Whole	3,010,232	06/059
Orange County	8-Hour Ozone (2015)	Los Angeles-South Coast Air Basin, CA	181920212223	//	Extreme	Whole	3,010,232	06/059
Orange County	Carbon Monoxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697989900010203040506	06/11/2007	Serious	Whole	3,010,232	06/059
Orange County	Nitrogen Dioxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697	09/22/1998	Primary	Whole	3,010,232	06/059

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Orange County	PM-10 (1987)	Riverside, Los Angeles, Orange, & San Bernardino Counties; South Coast Air Basin, CA	929394959697989900010203040506070809101112	07/26/2013	Serious	Whole	3,010,232	06/059
Orange County	PM-2.5 (1997)	Los Angeles-South Coast Air Basin, CA	05060708091011121314151617181920212223	//	Moderate	Whole	3,010,232	06/059
Orange County	PM-2.5 (2006)	Los Angeles-South Coast Air Basin, CA	091011121314151617181920212223	//	Serious	Whole	3,010,232	06/059
Orange County	PM-2.5 (2012)	Los Angeles-South Coast Air Basin, CA	151617181920212223	//	Serious	Whole	3,010,232	06/059
Placer County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Part	336,617	06/061
Placer County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Part	339,500	06/061
Placer County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Part	338,093	06/061
Placer County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Part	337,840	06/061
Placer County	Carbon Monoxide (1971)	Lake Tahoe North Shore, CA	929394959697	06/01/1998	Not Classified	Part	16,132	06/061
Placer County	Carbon Monoxide (1971)	Sacramento, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	102,822	06/061
Placer County	PM-2.5 (2006)	Sacramento, CA	091011121314151617181920212223	//	Moderate	Part	314,319	06/061
Plumas County	PM-2.5 (2012)	Plumas County, CA	151617181920212223	//	Serious	Part	5,843	06/063
Riverside County	1-Hour Ozone (1979)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	92939495969798990001020304	//	Extreme	Part	1,692,083	06/065
Riverside County	1-Hour Ozone (1979)-NAAQS revoked	Southeast Desert Modified AQMA, CA	92939495969798990001020304	//	Severe-17	Part	460,138	06/065
Riverside County	1-Hour Ozone (1979)-NAAQS revoked	Morongo Band of Mission Indians, CA	92939495969798990001020304	//	Severe-17	Part	913	06/065
Riverside County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	0405060708091011121314	//	Extreme	Part	1,737,296	06/065
Riverside County	8-Hour Ozone (1997)-NAAQS revoked	Riverside County (Coachella Valley), CA	0405060708091011121314	//	Extreme	Part	425,425	06/065
Riverside County	8-Hour Ozone (1997)-NAAQS revoked	Morongo Band of Mission Indians, CA	0405060708091011121314	//	Severe 17	Part	913	06/065
Riverside County	8-Hour Ozone (1997)-NAAQS revoked	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	0405060708091011121314	04/03/2015	Severe 17	Part	2,730	06/065

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Riverside County	8-Hour Ozone (2008)	Los Angeles-South Coast Air Basin, CA	121314151617181920212223	//	Extreme	Part	1,739,657	06/065
Riverside County	8-Hour Ozone (2008)	Riverside County (Coachella Valley), CA	121314151617181920212223	//	Severe 15	Part	425,806	06/065
Riverside County	8-Hour Ozone (2008)	Morongo Band of Mission Indians, CA	121314151617181920212223	//	Severe 15	Part	913	06/065
Riverside County	8-Hour Ozone (2008)	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	121314151617181920212223	//	Moderate	Part	2,730	06/065
Riverside County	8-Hour Ozone (2015)	Los Angeles-South Coast Air Basin, CA	181920212223	//	Extreme	Part	1,737,528	06/065
Riverside County	8-Hour Ozone (2015)	Riverside County (Coachella Valley), CA	181920212223	//	Severe 15	Part	425,029	06/065
Riverside County	8-Hour Ozone (2015)	Morongo Band of Mission Indians, CA	181920212223	//	Serious	Part	932	06/065
Riverside County	8-Hour Ozone (2015)	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	181920212223	//	Moderate	Part	639	06/065
Riverside County	Carbon Monoxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697989900010203040506	06/11/2007	Serious	Part	1,692,996	06/065
Riverside County	Nitrogen Dioxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697	09/22/1998	Primary	Part	1,692,996	06/065
Riverside County	PM-10 (1987)	Riverside County; Coachella Valley planning area, CA	9293949596979899000102030405060708091011121314151617181920212223	//	Serious	Part	257,794	06/065
Riverside County	PM-10 (1987)	Riverside, Los Angeles, Orange, & San Bernardino Counties; South Coast Air Basin, CA	929394959697989900010203040506070809101112	07/26/2013	Serious	Part	1,692,996	06/065
Riverside County	PM-2.5 (1997)	Los Angeles-South Coast Air Basin, CA	05060708091011121314151617181920212223	//	Moderate	Part	1,740,912	06/065
Riverside County	PM-2.5 (2006)	Los Angeles-South Coast Air Basin, CA	091011121314151617181920212223	//	Serious	Part	1,740,819	06/065
Riverside County	PM-2.5 (2012)	Los Angeles-South Coast Air Basin, CA	151617181920212223	//	Serious	Part	1,740,819	06/065
Sacramento County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Whole	1,418,788	06/067

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Sacramento County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Whole	1,418,788	06/067
Sacramento County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Whole	1,418,788	06/067
Sacramento County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Whole	1,418,788	06/067
Sacramento County	Carbon Monoxide (1971)	Sacramento, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	1,381,740	06/067
Sacramento County	PM-10 (1987)	Sacramento County, CA	94959697989900010203040506070809101112	10/28/2013	Moderate	Whole	1,418,788	06/067
Sacramento County	PM-2.5 (2006)	Sacramento, CA	091011121314151617181920212223	//	Moderate	Whole	1,418,788	06/067
San Benito County	1-Hour Ozone (1979)-NAAQS revoked	Monterey Bay, CA	9293949596	03/18/1997	Moderate	Whole	55,269	06/069
San Bernardino County	1-Hour Ozone (1979)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	92939495969798990001020304	//	Extreme	Part	1,583,657	06/071
San Bernardino County	1-Hour Ozone (1979)-NAAQS revoked	Southeast Desert Modified AQMA, CA	92939495969798990001020304	//	Severe-17	Part	427,842	06/071
San Bernardino County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles and San Bernardino Counties (Western Mojave Desert), CA	0405060708091011121314	//	Severe 15	Part	489,780	06/071
San Bernardino County	8-Hour Ozone (1997)-NAAQS revoked	Los Angeles-South Coast Air Basin, CA	0405060708091011121314	//	Extreme	Part	1,526,620	06/071
San Bernardino County	8-Hour Ozone (2008)	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	121314151617181920212223	//	Severe 15	Part	489,638	06/071
San Bernardino County	8-Hour Ozone (2008)	Los Angeles-South Coast Air Basin, CA	121314151617181920212223	//	Extreme	Part	1,526,629	06/071
San Bernardino County	8-Hour Ozone (2015)	Los Angeles-San Bernardino Counties (West Mojave Desert), CA	181920212223	//	Severe 15	Part	489,531	06/071
San Bernardino County	8-Hour Ozone (2015)	Los Angeles-South Coast Air Basin, CA	181920212223	//	Extreme	Part	1,526,600	06/071
San Bernardino County	Carbon Monoxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697989900010203040506	06/11/2007	Serious	Part	1,583,687	06/071
San Bernardino County	Nitrogen Dioxide (1971)	Los Angeles-South Coast Air Basin, CA	929394959697	09/22/1998	Primary	Part	1,583,687	06/071
San Bernardino County	PM-10 (1987)	Riverside, Los Angeles, Orange, & San Bernardino Counties; South Coast Air Basin, CA	929394959697989900010203040506070809101112	07/26/2013	Serious	Part	1,583,687	06/071

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
San Bernardino County	PM-10 (1987)	Trona, CA	9293949596979899000102030405060708091011121314151617181920212223	//	Moderate	Part	4,167	06/071
San Bernardino County	PM-10 (1987)	San Bernardino County, CA	949596979899000102030405060708091011121314151617181920212223	//	Moderate	Part	237,418	06/071
San Bernardino County	PM-2.5 (1997)	Los Angeles-South Coast Air Basin, CA	05060708091011121314151617181920212223	//	Moderate	Part	1,526,626	06/071
San Bernardino County	PM-2.5 (2006)	Los Angeles-South Coast Air Basin, CA	091011121314151617181920212223	//	Serious	Part	1,526,626	06/071
San Bernardino County	PM-2.5 (2012)	Los Angeles-South Coast Air Basin, CA	151617181920212223	//	Serious	Part	1,526,626	06/071
San Diego County	1-Hour Ozone (1979)-NAAQS revoked	San Diego, CA	9293949596979899000102	07/28/2003	Serious	Whole	3,095,313	06/073
San Diego County	8-Hour Ozone (1997)-NAAQS revoked	San Diego, CA	040506070809101112	07/05/2013	Moderate	Part	3,093,345	06/073
San Diego County	8-Hour Ozone (1997)-NAAQS revoked	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	0405060708091011121314	04/03/2015	Severe 17	Part	114	06/073
San Diego County	8-Hour Ozone (2008)	San Diego County, CA	121314151617181920212223	//	Severe 15	Part	3,095,199	06/073
San Diego County	8-Hour Ozone (2008)	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	121314151617181920212223	//	Moderate	Part	114	06/073
San Diego County	8-Hour Ozone (2015)	San Diego County, CA	181920212223	//	Severe 15	Part	3,077,287	06/073
San Diego County	8-Hour Ozone (2015)	Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA	181920212223	//	Moderate	Part	13	06/073
San Diego County	Carbon Monoxide (1971)	San Diego, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	2,909,194	06/073
San Francisco County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	805,235	06/075
San Francisco County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	805,235	06/075
San Francisco County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	805,235	06/075
San Francisco County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	805,235	06/075
San Francisco County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Whole	805,235	06/075

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
San Francisco County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	805,235	06/075
San Joaquin County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	685,306	06/077
San Joaquin County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	685,306	06/077
San Joaquin County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	685,306	06/077
San Joaquin County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	685,306	06/077
San Joaquin County	Carbon Monoxide (1971)	Stockton, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	373,545	06/077
San Joaquin County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	685,306	06/077
San Joaquin County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	685,306	06/077
San Joaquin County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	685,306	06/077
San Joaquin County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	685,306	06/077
San Luis Obispo County	8-Hour Ozone (2008)	San Luis Obispo (Eastern San Luis Obispo), CA	121314151617181920212223	//	Marginal	Part	1,649	06/079
San Luis Obispo County	8-Hour Ozone (2015)	San Luis Obispo (Eastern part), CA	181920212223	//	Marginal	Part	1,290	06/079
San Mateo County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	718,451	06/081
San Mateo County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	718,451	06/081
San Mateo County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	718,451	06/081
San Mateo County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	718,451	06/081
San Mateo County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	497,688	06/081
San Mateo County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	718,451	06/081
Santa Barbara County	1-Hour Ozone (1979)-NAAQS revoked	Santa Barbara-Santa Maria-Lompoc, CA	9293949596979899000102	08/08/2003	Serious	Whole	423,895	06/083
Santa Clara County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Whole	1,781,642	06/085
Santa Clara County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Whole	1,781,642	06/085

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Santa Clara County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Whole	1,781,642	06/085
Santa Clara County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Whole	1,781,642	06/085
Santa Clara County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	594,906	06/085
Santa Clara County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Whole	1,781,642	06/085
Santa Cruz County	1-Hour Ozone (1979)-NAAQS revoked	Monterey Bay, CA	9293949596	03/18/1997	Moderate	Whole	262,382	06/087
Solano County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Part	206,433	06/095
Solano County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Part	206,929	06/095
Solano County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Part	129,518	06/095
Solano County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Part	284,218	06/095
Solano County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Part	129,377	06/095
Solano County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Part	285,082	06/095
Solano County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Part	129,291	06/095
Solano County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Part	284,053	06/095
Solano County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	242,850	06/095
Solano County	PM-2.5 (2006)	Sacramento, CA	091011121314151617181920212223	//	Moderate	Part	129,588	06/095
Solano County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Part	284,288	06/095
Sonoma County	1-Hour Ozone (1979)-NAAQS revoked	San Francisco-Bay Area, CA	98990001020304	//	Other	Part	436,512	06/097
Sonoma County	8-Hour Ozone (1997)-NAAQS revoked	San Francisco Bay Area, CA	0405060708091011121314	//	Marginal	Part	433,262	06/097
Sonoma County	8-Hour Ozone (2008)	San Francisco Bay Area, CA	121314151617181920212223	//	Marginal	Part	434,421	06/097
Sonoma County	8-Hour Ozone (2015)	San Francisco Bay Area, CA	181920212223	//	Marginal	Part	431,795	06/097
Sonoma County	Carbon Monoxide (1971)	San Francisco-Oakland-San Jose, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	249,297	06/097

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Sonoma County	PM-2.5 (2006)	San Francisco Bay Area, CA	091011121314151617181920212223	//	Moderate	Part	433,262	06/097
Stanislaus County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	514,453	06/099
Stanislaus County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	514,453	06/099
Stanislaus County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	514,453	06/099
Stanislaus County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	514,453	06/099
Stanislaus County	Carbon Monoxide (1971)	Modesto, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	320,707	06/099
Stanislaus County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	514,453	06/099
Stanislaus County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	514,453	06/099
Stanislaus County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	514,453	06/099
Stanislaus County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	514,453	06/099
Sutter County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Part	30,023	06/101
Sutter County	1-Hour Ozone (1979)-NAAQS revoked	Yuba City, CA	92939495969798990001020304	//	Section 185A	Part	64,717	06/101
Sutter County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Part	3,433	06/101
Sutter County	8-Hour Ozone (1997)-NAAQS revoked	Sutter County (part) (Sutter Buttes), CA	0405060708091011121314	//	Marginal	Part	33	06/101
Sutter County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Part	3,433	06/101
Sutter County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Part	3,383	06/101
Sutter County	8-Hour Ozone (2015)	Sutter Buttes, CA	181920212223	//	Marginal	Part	3	06/101
Sutter County	PM-2.5 (2006)	Yuba City-Marysville, CA	091011121314	01/08/2015	Moderate	Whole	94,737	06/101
Tehama County	8-Hour Ozone (2008)	Tuscan Buttes, CA	121314151617181920212223	//	Marginal	Part	0	06/103
Tehama County	8-Hour Ozone (2015)	Tuscan Buttes, CA	181920212223	//	Marginal (Rural Transport)	Part	0	06/103
Tulare County	1-Hour Ozone (1979)-NAAQS revoked	San Joaquin Valley, CA	92939495969798990001020304	//	Extreme	Whole	442,179	06/107
Tulare County	8-Hour Ozone (1997)-NAAQS revoked	San Joaquin Valley, CA	0405060708091011121314	//	Extreme	Whole	442,179	06/107
Tulare County	8-Hour Ozone (2008)	San Joaquin Valley, CA	121314151617181920212223	//	Extreme	Whole	442,179	06/107
Tulare County	8-Hour Ozone (2015)	San Joaquin Valley, CA	181920212223	//	Extreme	Whole	442,179	06/107
Tulare County	PM-10 (1987)	San Joaquin Valley Air Basin, CA	92939495969798990001020304050607	12/12/2008	Serious	Whole	442,179	06/107

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	State/County FIPS Codes
Tulare County	PM-2.5 (1997)	San Joaquin Valley, CA	05060708091011121314151617181920212223	//	Serious	Whole	442,179	06/107
Tulare County	PM-2.5 (2006)	San Joaquin Valley, CA	091011121314151617181920212223	//	Serious	Whole	442,179	06/107
Tulare County	PM-2.5 (2012)	San Joaquin Valley, CA	151617181920212223	//	Serious	Whole	442,179	06/107
Tuolumne County	8-Hour Ozone (1997)-NAAQS revoked	Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	0405060708091011121314	//	Moderate	Whole	55,365	06/109
Tuolumne County	8-Hour Ozone (2015)	Tuolumne County, CA	181920212223	//	Marginal	Whole	55,365	06/109
Ventura County	1-Hour Ozone (1979)-NAAQS revoked	Ventura County, CA	92939495969798990001020304	//	Severe-15	Whole	823,318	06/111
Ventura County	8-Hour Ozone (1997)-NAAQS revoked	Ventura County (part), CA	0405060708091011121314	//	Serious	Part	823,360	06/111
Ventura County	8-Hour Ozone (2008)	Ventura County, CA	121314151617181920212223	//	Serious	Part	823,262	06/111
Ventura County	8-Hour Ozone (2015)	Ventura County, CA	181920212223	//	Serious	Part	820,808	06/111
Yolo County	1-Hour Ozone (1979)-NAAQS revoked	Sacramento Metro, CA	92939495969798990001020304	//	Severe-15	Whole	200,849	06/113
Yolo County	8-Hour Ozone (1997)-NAAQS revoked	Sacramento Metro, CA	0405060708091011121314	//	Severe 15	Whole	200,849	06/113
Yolo County	8-Hour Ozone (2008)	Sacramento Metro, CA	121314151617181920212223	//	Severe 15	Whole	200,849	06/113
Yolo County	8-Hour Ozone (2015)	Sacramento Metro, CA	181920212223	//	Serious	Whole	200,849	06/113
Yolo County	Carbon Monoxide (1971)	Sacramento, CA	929394959697	06/01/1998	Moderate <= 12.7ppm	Part	45,554	06/113
Yolo County	PM-2.5 (2006)	Sacramento, CA	091011121314151617181920212223	//	Moderate	Part	199,151	06/113
Yuba County	1-Hour Ozone (1979)-NAAQS revoked	Yuba City, CA	92939495969798990001020304	//	Section 185A	Whole	72,155	06/115
Yuba County	PM-2.5 (2006)	Yuba City-Marysville, CA	091011121314	01/08/2015	Moderate	Part	70,218	06/115

Important Notes

Discover.

Connect.

Ask.

Follow.

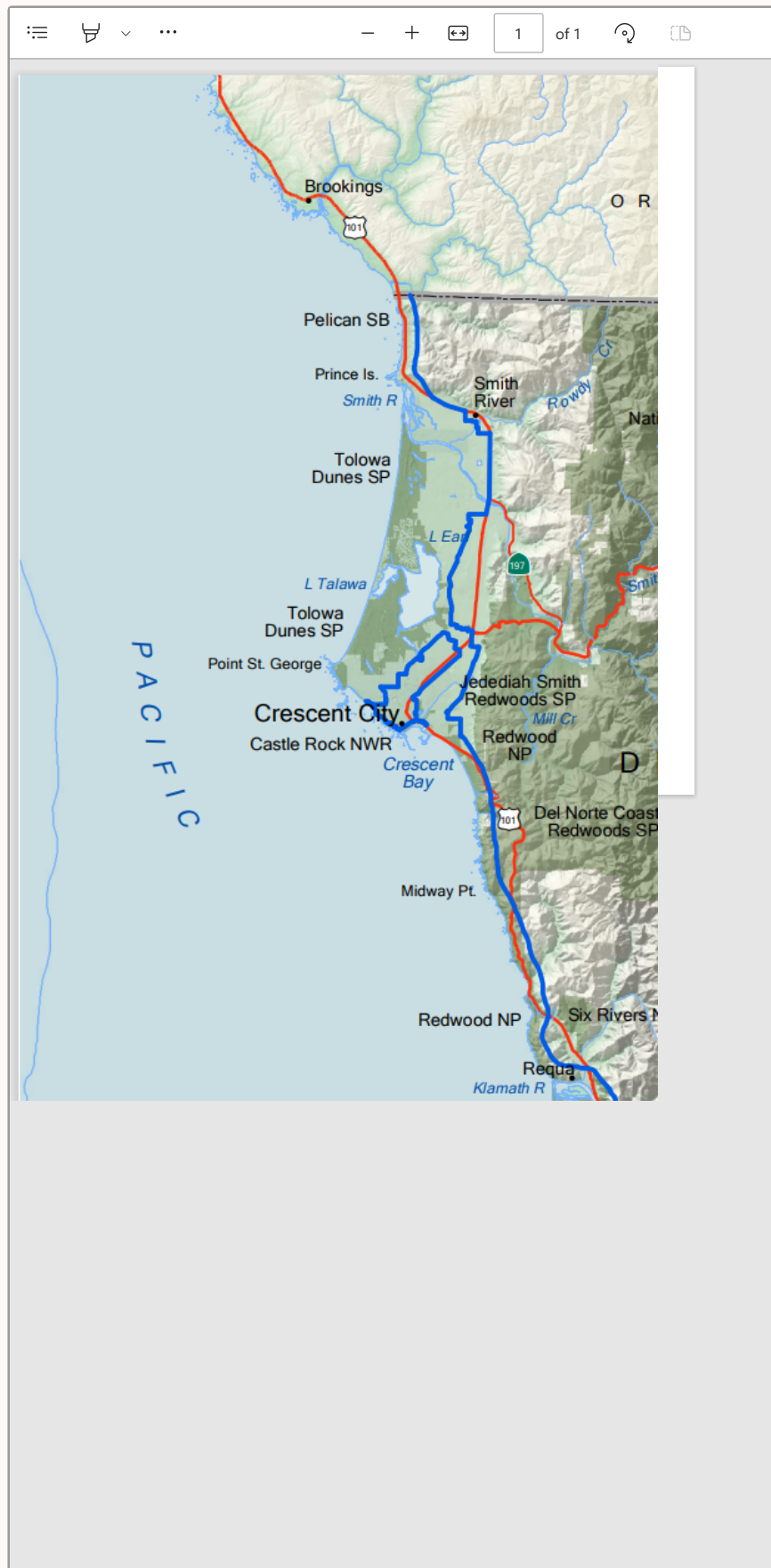
2023-03-31



Maps

Coastal Zone Boundary

[Del Norte](#)[Humboldt](#)[Mendocino](#)[Sonoma](#)[Marin](#)[San Francisco](#)[San Mateo](#)[Santa Cruz](#)[Monterey](#)[San Luis
Obispo](#)[Santa Barbara](#)[Ventura](#)[Los Angeles](#)[Orange](#)[San Diego](#)


Information on Digital Coastal Zone Boundaries:

The original 1977 Coastal Zone Boundary maps were mylar (drafting film) copies of 161 USGS 7.5 minute topographic quadrangles with an inked boundary added. This digital version of the boundary was developed to provide a georeferenced, attributed (to explain the basis of the mapped Coastal Zone), cadastral (parcel-based) depiction of the adopted Coastal Zone

Boundary for the planning and regulatory activities of the Coastal Commission, local governments and others. However, it does not represent "survey" accuracy information, and may not eliminate the need for a formal boundary determination.

Public Resources Code (PRC) Section 30103(a) specifically defines California's Coastal Zone as that land and water area of the State of California from the Oregon border to the border of the Republic of Mexico depicted on maps identified and set forth in Section 17 of that chapter of the Statutes of the 1975-76 Regular Session enacting PRC Division 20 (the Coastal Act of 1976). PRC Section 30103(b) directed the Coastal Commission to prepare and adopt more detailed 1:24,000 scale Coastal Zone Boundary (CZB) maps, which occurred March 1, 1977. These 161 adopted maps provide the official basis for all other representations of the landward CZB. The digital version of the CZB created by developing this data is a conformed copy of the official boundary, and in some locations reflects legislative changes and Coastal Commission minor adjustments adopted from time to time since March 1977.

Limitations of Use:

The boundary depicted in the attached file ('s) was digitized from the official 1:24,000 scale Coastal Zone Boundary maps, however, there are several important points to note about its use. The digital Coastal Zone Boundaries have not been adopted by the Commission, and do not supersede the official version of the Coastal Zone Boundary adopted by the Coastal Commission in March 1977 and amended from time to time since then. This data does not represent "survey" accuracy information, and may not eliminate the need for a formal boundary determination.

Disclaimer:

The State of California and the Coastal Commission make no representations or warranties regarding the accuracy or completeness of the attached files or the data from which it was derived. Neither the State nor the Commission shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages, however caused, with respect to any claim by any user or any third party on account of or arising from the use of these boundary files or the data from which it was derived. Because the files are merely representational, it and the data from which it was derived are not binding on the Commission and may be revised at any time in the future.

Indemnification:

The user of this data agrees to defend, indemnify, and hold harmless, the California Coastal Commission, its Commissioners, employees, and agents, from and against all claims and expenses, including attorneys' fees, arising out of the use of this data by user.



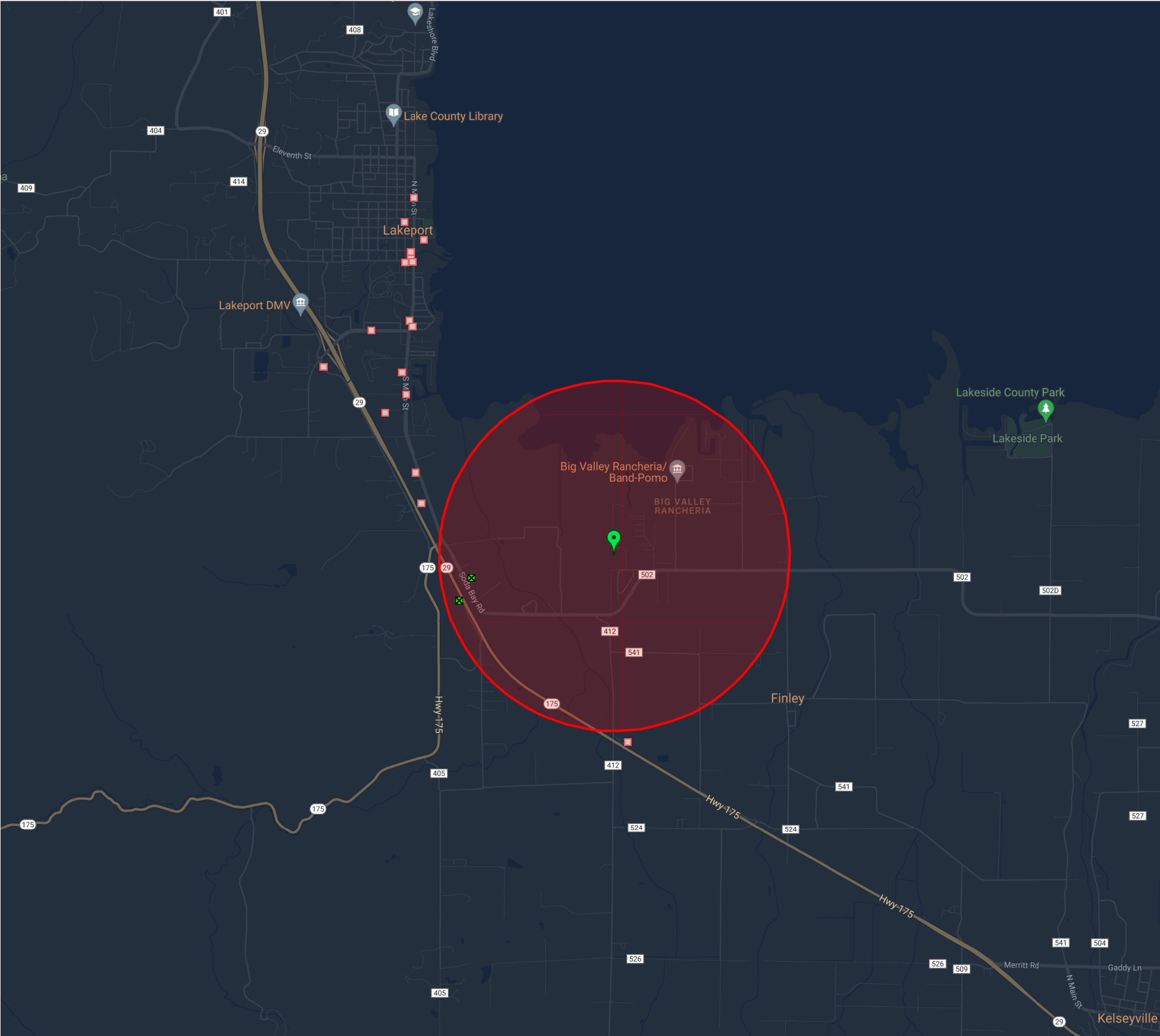
The screenshot displays the 'Department of Toxic Substances Control - Envirostor Public Data Export' web application. The interface includes a legend on the left side with the following categories:

- Cleanupsites**: Represented by a red dot.
- Hazardouswastesites**: Represented by an orange dot.
- ICESites**: Represented by a yellow dot.

The map shows a route from a red dot (Cleanup site) to an orange dot (Hazardous waste site) with a distance of 1.26 miles. The map includes a unit/distance popup on the right side with the following information:

- Unit**: Imperial
- Distance**: 1.26 mi
- New measurement**: Button to start a new measurement.

The map also shows various geographical features and roads, including Highway 175, Manning Creek, and several local streets like Parallel Dr, S Main St, and Soda Bay Rd. The bottom toolbar contains navigation controls such as zoom in, zoom out, and a search bar.



LEGEND - [CHOOSE MORE SITES](#)

LUST Cleanup Sites - [REMOVE](#)

Cleanup Program Sites - [REMOVE](#)

Military Cleanup Sites - [REMOVE](#)

Military Privatized Sites - [REMOVE](#)

Military UST Sites - [REMOVE](#)

☒

Signifies a Closed Site

ACTIVE MAP COVERAGES:

Military Bases - - [REMOVE](#)

LIST SITES VISIBLE ON MAP

Map data ©2023 500 m



California
Department of Conservation

Search



CA Farmland Conservancy

Conservation Districts

Farmland Mapping

Williamson Act



California Important Farmland Finder

Ca. Dept of Conservation



Find address or place



Polygon Tool

Input

Output

Area Of Interest

The result is drawn on the map.



Area Statistics

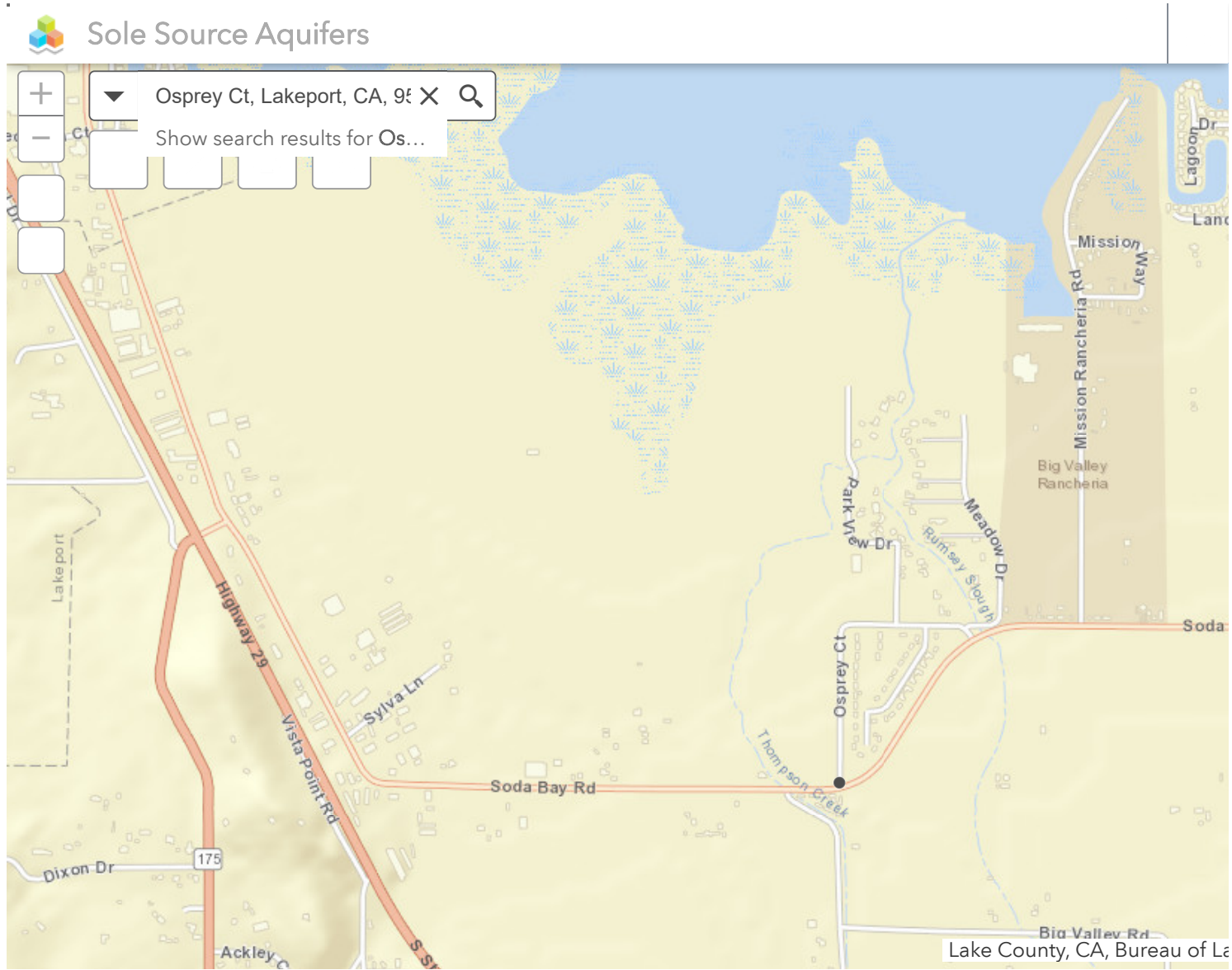


DESCRIPTION	ACRES	PERCENT
Urban and Built-up Land	5.6	100.0

200m

Farmland Mapping and Monitoring Program, Division of Land Resource Protection, California...

POWERED BY
esri

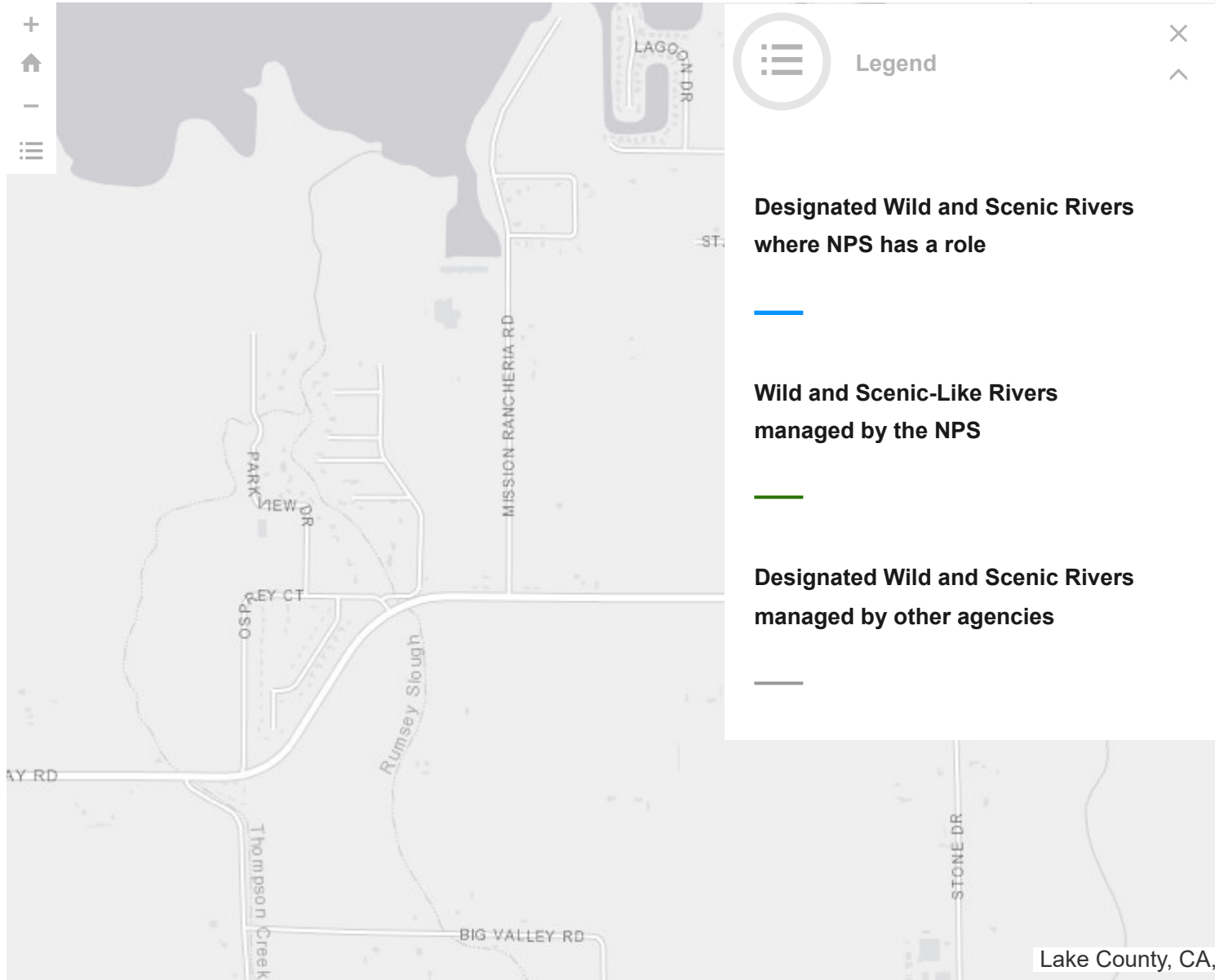


Wild & Scenic Rivers

▼

Find address or place

🔍





Big Valley Band of Pomo Indians

Tribal Transportation Program (TTP)



TTP

The Tribal Transportation Program (TTP) is the largest program in the Office of Federal Lands Highway. Established in 23 U.S.C. 202 to address the transportation needs of Tribal governments throughout the United States and is established to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities. A prime objective of the TTP is to contribute to the economic development, self-determination, and employment of Indians and Native Americans.

The Tribal Transportation Program is funded by contract authority from the Highway Trust Fund and is subject to the overall Federal-aid obligation limitation. Funds are allocated among Tribes using a new statutory formula based on tribal population, road mileage and average tribal shares of the former Tribal Transportation Allocation Methodology (TTAM) formula.

Documents

[2017 Roads Inventory](#)

[2017-2021
Transportation
Safety Plan](#)

TTP Staff

How's My Waterway?

Informing the conversation about your waters.

Community

State & Tribal

National



Osprey Ct, Lakeport, California, 95453

WATERSHED: Manning Creek-Frontal Clear Lake (180201160306)

Overview

Swimming

Eating Fish

Aquatic Life



Overview

Show Text

Your Waters: What We Know

Waters in your community are connected within a local watershed. The **dashed outline on the map shows your watershed.**

Water quality is monitored for physical, chemical and biological factors. The monitoring results are assessed against EPA approved water quality standards or thresholds. Water can be impaired, meaning it is not able to be used for certain purposes.... [Show more](#)

DISCLAIMER

3

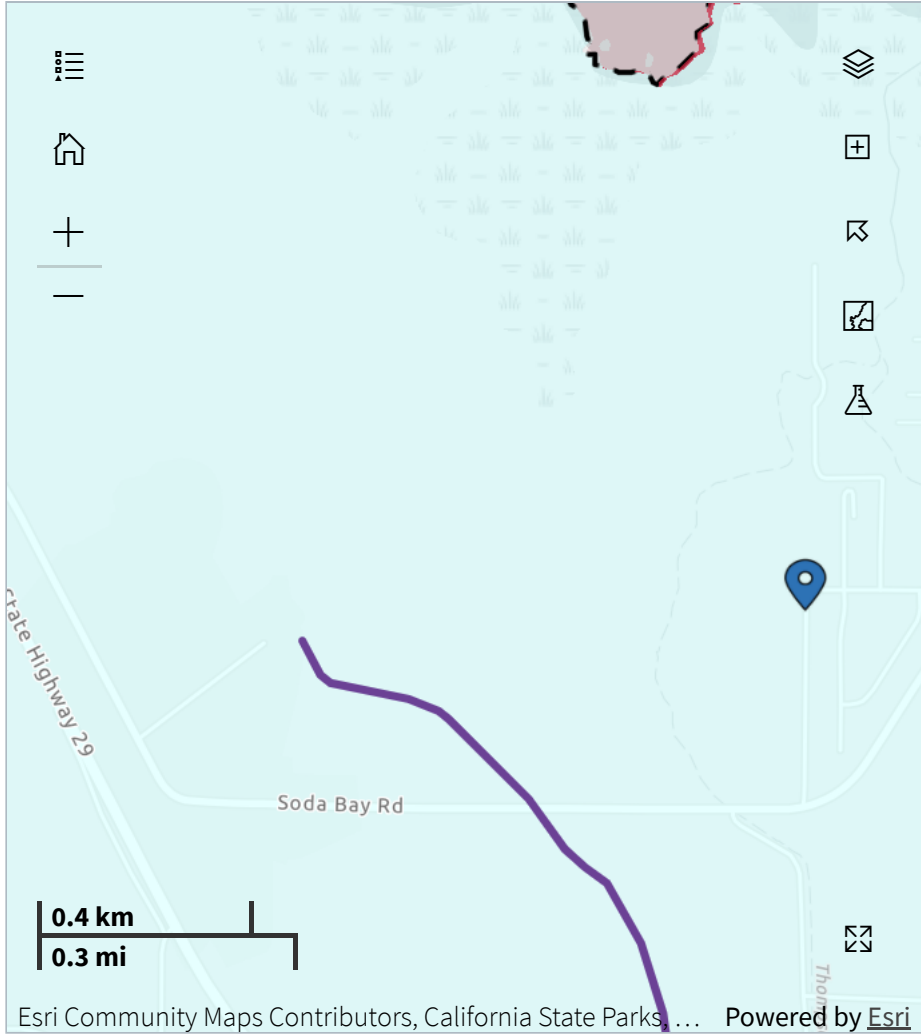
Waterbodies

36

Monitoring Locations

N/A

Permitted Dischargers



Waterbodies	Monitoring Locations	Permitted Dischargers
<div>Waterbody Conditions:</div> <div><div><div></div> Good</div><div><div></div> Impaired</div><div><div></div> Condition Unknown</div></div> <div>Expand All <input type="checkbox"/></div>		
Overall condition of 3 waterbodies in the <i>Manning Creek-Frontal Clear Lake</i> watershed.		
<div><div></div> Clear Lake</div> <div>State Waterbody ID: CAL5135200019980814115549</div>		<div></div>
<div><div></div> Forbes Creek (Lake County)</div> <div>State Waterbody ID: CAR5135506020200826050408</div>		<div></div>
<div><div></div> Manning Creek (Lake County)</div> <div>State Waterbody ID: CAR5135503020191216036244</div>		<div></div>



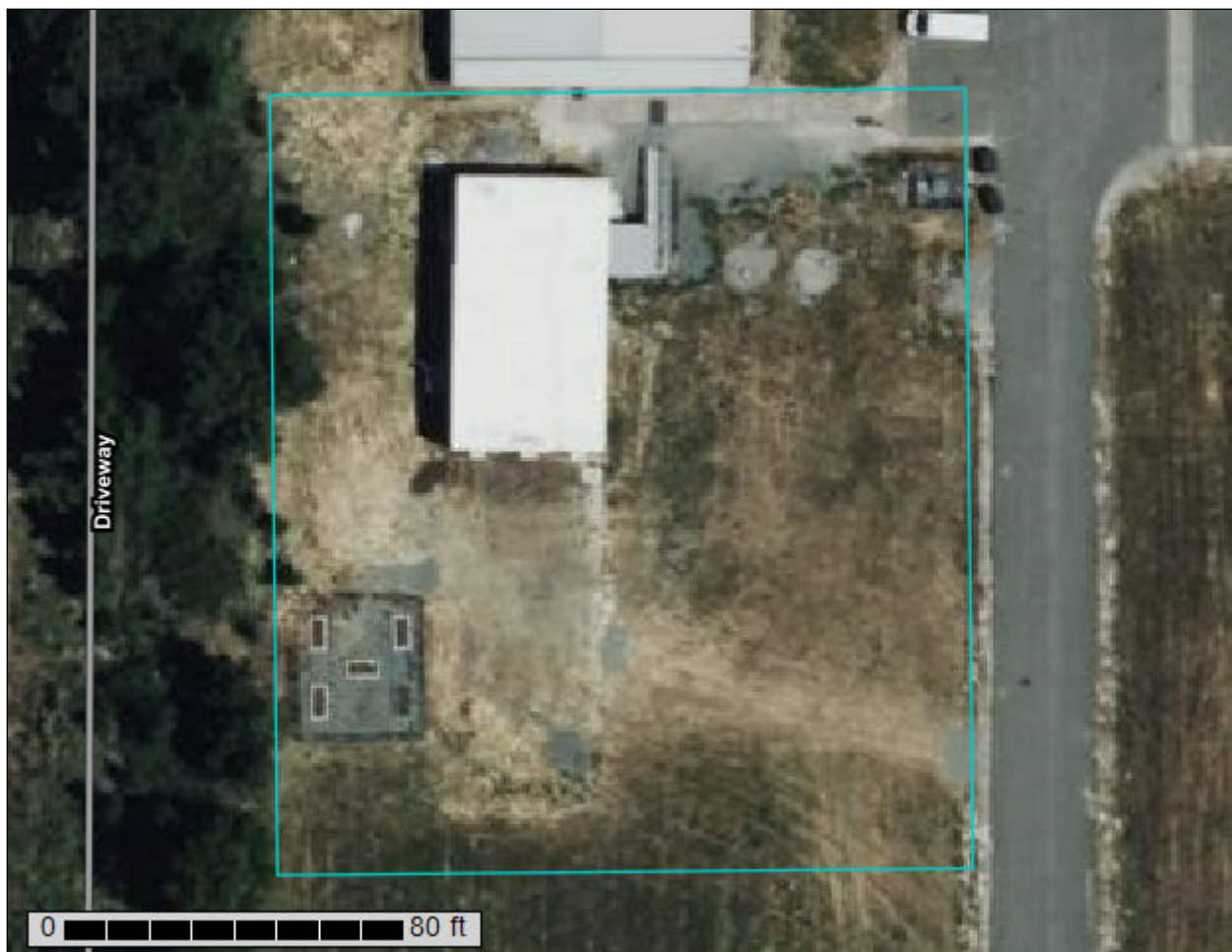
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Lake County, California



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

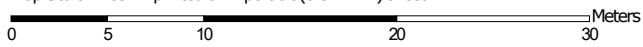
Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



Map Scale: 1:392 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 20, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 7, 2022—May 31, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
121	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 15	0.3	48.3%
125	Cole variant clay loam, calcareous substratum	0.4	51.7%
Totals for Area of Interest		0.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lake County, California

121—Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 15

Map Unit Setting

National map unit symbol: 2vbt4
Elevation: 1,330 to 1,760 feet
Mean annual precipitation: 27 to 38 inches
Mean annual air temperature: 57 to 59 degrees F
Frost-free period: 160 to 210 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Clear lake, drained, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Clear Lake, Drained

Setting

Landform: Lake plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey lacustrine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 6 inches: clay
Bkss1 - 6 to 28 inches: clay
Bkss2 - 28 to 41 inches: clay
Bkss3 - 41 to 56 inches: clay
Bk - 56 to 72 inches: clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 8 percent
Maximum salinity: Nonsaline (0.3 to 0.6 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: R015XY002CA - Clayey Bottom

Hydric soil rating: Yes

Minor Components

Clear lake, variant

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Xerofluvents

Percent of map unit: 5 percent

Landform: Drainageways

Hydric soil rating: Yes

Cole

Percent of map unit: 3 percent

Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent

Hydric soil rating: No

125—Cole variant clay loam, calcareous substratum

Map Unit Setting

National map unit symbol: hf5h

Elevation: 1,300 to 1,400 feet

Mean annual precipitation: 28 inches

Mean annual air temperature: 57 degrees F

Frost-free period: 150 to 200 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Cole, variant, and similar soils: 70 percent

Minor components: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cole, Variant

Setting

Landform: Flood plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

H1 - 0 to 20 inches: clay loam

H2 - 20 to 60 inches: clay

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R014XG905CA - Clayey Bottom
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 7 percent
Hydric soil rating: No

Cole

Percent of map unit: 7 percent
Hydric soil rating: No

Cole, variant

Percent of map unit: 7 percent
Hydric soil rating: No

Still

Percent of map unit: 7 percent
Hydric soil rating: No

Unnamed, (ponded)

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

LOCATION CLEAR LAKE CA

Established Series

Rev. GWH/CAF/JJJ/SBS/AEC

03/2018

CLEAR LAKE SERIES

The Clear Lake series consists of very deep, poorly drained soils that formed in fine textured alluvium derived from mixed rock sources. Clear Lake soils are in flood basins, flood plains and in swales of drainageways. Slopes are 0 to 5 percent. The mean annual precipitation is about 20 inches and the mean annual air temperature is about 60 degrees F.

TAXONOMIC CLASS: Fine, smectitic, thermic Xeric Endoaquerts

TYPICAL PEDON: Clear Lake clay, annual pasture. (Colors are for dry soil unless otherwise stated when described there was a water table at 48 inches).

Ag--0 to 13 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist, few fine faint redoximorphic concentrations; strong medium granular structure at the surface and strong very coarse prismatic structure below when dry, massive when wet; very hard, firm, very sticky and very plastic; many fine roots; common very fine and fine pores; grass seeds, grass and burned plant remains in cracks and along cleavage planes; neutral (pH 7.0); gradual wavy boundary. (4 to 15 inches thick)

Bssg1--13 to 19 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist; strong coarse prismatic structure when dry, massive when wet; extremely hard, very firm, very sticky and very plastic; many fine roots; many very fine and fine pores; many slickensides; grass remains in cracks and along cleavage planes; moderately alkaline (pH 8.0); clear wavy boundary. (5 to 10 inches thick)

Bssg2--19 to 45 inches; dark gray (N 4/0) clay, very dark gray (N 3/0) moist; strong coarse prismatic structure; extremely hard, very firm, very sticky and very plastic; few roots; few very fine and fine pores; many slickensides; few fine iron-manganese concretions; smooth pressure faces on peds; slightly calcareous; moderately alkaline (pH 8.0); diffuse irregular boundary. (10 to 35 inches thick)

Bssk--45 to 60 inches; grayish brown (2.5Y 5/2) clay, light olive brown (2.5Y 5/4) moist; tongues of very dark grayish brown (2.5Y 3/2) moist in the upper part; light yellowish brown (10YR 6/4) masses of iron accumulations; massive; very hard, very firm, very sticky and very plastic; few fine roots; very few very fine pores; few slickensides; few fine iron-manganese concretions; few soft lime masses; slightly calcareous; moderately alkaline (pH 8.0).

TYPE LOCATION: Solano County, California; 300 feet south, 300 feet east of northwest corner of sec. 25, T. 6 N., R. 2 E.; 38 degrees, 20 minutes, 35 seconds north latitude and 121 degrees, 42 minutes, 41.7 seconds west longitude; NAD83

RANGE IN CHARACTERISTICS: The combined thickness of the Ag, Bssg, and Bssk horizons is more than 60 inches. The mean annual soil temperature is 59 degrees to 65 degrees F. On drying, large cracks extend as deep as 48 inches and form large prisms. The cracks open and close at least once each year and are open by June or July and are closed by October or November. Various amounts of undecomposed plant material and surface soil are in these cracks. Common to many slickensides are in the zone from 12 to 48 inches. In some pedons moderate amounts of plant remains are in the lower part of the Ag horizon and the upper part of the Bssg horizon as well as in tongues of the Ag horizon extending in to the Bssg horizon. These soils have a calcium to magnesium ratio of more than 2.

The Ag and Bssg horizons have 10YR, 2.5Y or 5Y hue or is of neutral hue; value ranges from 2 through 5. Chromas are 1 or 0 moist and dry. Moist values are 1 or 2 units darker. In some pedons, colors are mottled with hues of 7.5YR or 10YR, values of 3 to 5 and chromas of 2 to 6. In other pedons concretions of Fe and Mn are present. These horizons range from moderately acid to moderately alkaline (pH 5.6 to 8.4) in the upper part and from slightly alkaline to moderately alkaline and calcareous in the lower part. The more acid surfaces are probably the result of cultural practices, especially extensive use of fertilizers and other agricultural chemicals. In areas adjacent to streams or sloughs, there is an overwash of stratified fine sandy loam or silty clay loam. Texture is clay loam, silty clay or clay.

The Bssk horizon has 10YR, 2.5Y or 5Y hue or is neutral; value ranges from 3 through 6 and chroma from 1 through 6; colors are mottled with hues of 10YR, 7.5YR, 2.5Y and 5Y. This horizon ranges from slightly alkaline to strongly alkaline and is usually calcareous with segregations of accumulated lime in soft masses or seams. In some pedons the lower part is stratified and noncalcareous. Texture is silty clay or clay.

COMPETING SERIES: These are the [Carhart](#), [Copus](#), [Dodgeland](#), and [Hildreth](#) series. Carhart soils are 20 to 40 inches to paralithic material. Hildreth soils overlie unrelated material and are somewhat poorly drained. Copus soils have neutral pH. Dodgeland soils have hue of 10YR and less than 40 percent clay in some horizons.

GEOGRAPHIC SETTING: Clear Lake soils are in flood basins, flood plains and in swales of drainageways. Slopes are 0 to 5 percent. Elevations are 5 to 2,000 feet. The soils formed in fine textured alluvium derived from igneous, metamorphic and sedimentary rocks. The soils are in a dry subhumid climate of relatively hot dry summers and cool moist winters. Mean annual precipitation ranges from 10 to 35 inches. Mean January temperature varies from 42 degrees to 47 degrees F., mean July temperature varies from 69 degrees to 72 degrees F., and mean annual temperature varies from 58 degrees to 62 degrees F. The frost-free season is 160 to 300 days. Cooler temperatures and a shorter frost-free season occurs in Lake County.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the [Cropley](#), [Antioch](#), [Capay](#), [Pacheco](#), [Salinas](#) and [San Ysidro](#) soils. Antioch soils have natric horizons. Capay soils have a chroma of 2 or more throughout. Cropley soils have chromas of 1.5 or more within 40 inches. Pacheco and Salinas soils have a mollic epipedon and have less than 35 percent clay. San Ysidro soils have an ochric epipedon and lack cracks and slickensides.

DRAINAGE AND PERMEABILITY: Poorly drained; negligible to high runoff (if assumed concave runoff is always negligible); slow to very slow permeability. A water table is at depths of 4 to 10 feet in the late summer and in some areas is very near the surface during wet months of winter. Some areas are artificially drained.

USE AND VEGETATION: Used for growing many row crops such as tomatoes, beans and sugar beets, dry farmed to grain, or irrigated and dry farmed pasture. Also used for rangeland. Native vegetation is grasses and forbs.

DISTRIBUTION AND EXTENT: In central California coastal valleys, small valleys of the Coast Range and in the San Joaquin and Sacramento Valleys. The soils are moderately extensive in MLRA- 14, 15 and 17.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Davis, California

SERIES ESTABLISHED: Lake County (Clear Lake Area), California, 1927.

REMARKS: Hildreth soils are currently listed in the same family. As currently described, Hildreth soils would not classify as Vertisols. A part of the Hildreth soils may belong to another series or different subgroup. More study of the Hildreth soils is needed to accurately classify these soils. In future MLRA updates Clear Lake mapped in MLRA 17 should be separated from acreage mapped in MLRA 14 (Coast Range Valleys). Differentia in this family is weak and has overlapping colors, plus marginal separations based on reaction classes, salinity and other factors.

Diagnostic horizons and features recognized in this pedon are:

Mollic epipedon - 0 to 45 inches

Slickensides - 19 to 60 inches

Reduced matrix - 0 to 45 inches

Redox concentrations - 0 to 13 inches and 19 to 60 inches

Secondary carbonates - 45 to 60 inches

Aquic conditions - 0 to 60 inches

Series classification updated May 1996. Competing series not reviewed at that time.

ADDITIONAL DATA: Two pedons in Sonoma County, CA: S61CA-097-009 (40A-3087), at 38 degrees north latitude, 14 minutes, 54 seconds, 122 degrees West longitude, 36 minutes, 31 seconds; and S61CA-097-010 (40A-3088), at 38 degrees North latitude, 16 minutes, 14 seconds, 122 West longitude, 38 minutes, 38 seconds. Two pedons in Solano County: NSSL pedon S79CA-095-000-000

(type location) and S91CA-099-005 (partial pedon). One pedon in Colusa County: S89CA-011-005.

Runoff terminology adjusted 5/96 to the adjective criteria of the Soil Survey Manual, 10/93.

Edits made for SDJR projects 12/2014 - AEC

National Cooperative Soil Survey

U.S.A.

LOCATION COLE CA

Established Series
Rev. DWS-JMK-DJE-ET-AEC
03/2018

COLE SERIES

The Cole series consists of very deep, somewhat poorly drained soils that formed in alluvium from mixed sources. Cole soils are on stream terraces, flood-plain steps, and alluvial fans with slopes of 0 to 5 percent. The mean annual precipitation is about 40 inches and the mean annual air temperature is about 60 degrees F.

TAXONOMIC CLASS: Fine, mixed, superactive, thermic Pachic Argixerolls

TYPICAL PEDON: Cole clay loam - on a 1 percent slope in an irrigated walnut orchard at 1,360 feet. (Colors are for dry soil unless otherwise noted. When described on April 28, 1976, the soil was slightly moist throughout).

Ap--0 to 6 inches (0 to 15 cm); grayish brown (10YR 5/2) clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure parting to strong fine and medium granular; hard, firm, sticky and plastic; common very fine, fine and medium roots; common fine and medium tubular pores; few worm casts; slightly acid (pH 6.5); abrupt smooth boundary. (6 to 15 inches thick)

BAt--6 to 13 inches (15 to 33 cm); grayish brown (10YR 5/2) clay loam, very dark gray (10YR 3/1) moist; moderate fine and medium subangular blocky structure parting to strong fine and medium granular; hard, firm, sticky and plastic; common very fine, fine and medium roots; many fine and medium tubular pores; common thin clay films on peds and in pores; few worm casts; slightly acid (pH 6.3); clear smooth boundary. (0 to 8 inches thick)

Bt1--13 to 35 inches (33 to 89 cm); gray (10YR 5/1) clay loam, very dark grayish brown (10YR 3/2) moist; weak medium and coarse angular blocky structure; very hard, firm, sticky and plastic; common very fine, fine and medium roots; common very fine and fine and few medium tubular pores; many thin and common moderately thick clay films on peds and in pores; 2 percent gravel 5 to 15 mm in diameter; moderately alkaline (pH 8.0); clear wavy boundary. (10 to 22 inches thick)

Bt2--35 to 51 inches (89 to 130 cm); brownish yellow (10YR 6/6) clay loam, yellowish brown (10YR 5/4) moist; grayish brown (10YR 5/2) clay films on peds and in pores; dark grayish brown (10YR 4/2) moist; weak medium prismatic structure; hard, firm, sticky and plastic; common medium

coarse and few fine roots; common very fine, fine and few medium tubular pores; many thin clay films bridging mineral grains and common moderately thick clay films on peds and in pores; moderately alkaline (pH 8.0); clear wavy boundary. (6 to 17 inches thick).

Bt3--51 to 62 inches (130 to 157 cm); variegated brown (10YR 5/3) and pale brown (10YR 6/3) clay loam, yellowish brown (10YR 5/4) moist; grayish brown (10YR 5/2) clay films; weak medium prismatic structure; hard, firm, sticky and plastic; common medium, coarse and few fine roots; many very fine, fine and common medium tubular pores; few thin and moderately thick clay films bridging mineral grains, on peds, and in pores; moderately alkaline (pH 8.0); clear smooth boundary. (0 to 15 inches thick)

Bt4--62 to 71 inches (157 to 180 cm); variegated brown (10YR 5/3) and pale brown (10YR 6/3) clay loam, yellowish brown (10YR 5/4) moist; grayish brown (10YR 5/2) clay films; weak medium prismatic structure; hard, firm, sticky and plastic; few fine and medium roots; common very fine, fine and few medium tubular pores; common thin clay films on peds, bridging mineral grains and in pores; 4 percent gravel 2 to 20 mm in diameter; moderately alkaline (pH 8.0).

TYPE LOCATION: Lake County, California; about 5 miles southeast of Lakeport, 75 feet northwest of the junction of Argonaut Road and Thomas Drive; NE1/4 NE1/4, section 8, T.13 N., R.9 W. 38 degrees 59 minutes 36.8 seconds North, 122 degrees 52 minutes 32.5 seconds West, NAD83

RANGE IN CHARACTERISTICS: The mean annual soil temperature is 59 to 65 degrees F, and the soil temperature usually is not below 47 degrees at any time. The soil between depths of 4 and 12 inches is usually dry from July 1 to October 1 and is moist in all parts from December 1 to April 30. The soils usually increase in alkalinity with increasing depth but are noncalcareous. The particle-size control section has 35 to 45 percent clay. Organic carbon is 1 to 5 percent to a depth of 20 to 35 inches. Gravel content ranges from 0 to 15 percent throughout.

The A horizon dry color is 10YR 3/2, 4/1, 4/2, 4/3, 5/1, 5/2, 5/3; 2.5Y 4/1, 4/2, 5/1 or 5/2. Moist colors are 10YR 2/1, 2/2, 3/1, 3/2, 3/3; or 2.5Y 3/2. It is loam, silt loam, clay loam, or silty clay loam and has granular or subangular blocky structure. It is slightly hard to very hard and is neutral to moderately acid. Some pedons have AB or BA horizons.

The upper Bt horizon dry color is 10YR 2/1, 2/2, 3/1, 3/2, 4/1, 4/2, 4/3, 5/1, 5/2, 5/3, 5/4, 6/3; 2.5Y 3/2, 4/2, 5/2 N 3/0, or N 4/0. Moist colors are 10YR 2/1, 2/2, 3/1, 3/2, 3/3, 4/1, 4/2, 4/3 4/4; 2.5Y 3/2, 4/2 or 5/2. In some pedons the lower part has dry colors of 10YR 6/2, 6/3, 6/4 or 6/6. Moist colors are 4/4, 5/3 or 5/4 and some also have mottles. It is silty clay loam, clay loam, silty clay or clay and averages 35 to 50 percent clay in the upper 20 inches. It is slightly acid to moderately alkaline.

The lower Bt horizon dry color has hues of 10YR, 2.5Y or 5Y and values 3 through 6 dry and 2 through 6 moist. Chroma is 1 through 3 dry and 2 through 4 moist. It is clay loam, clay loam, silty clay loam or clay and is mildly or moderately alkaline. Some pedons are underlain by gravel.

COMPETING SERIES: There are no other series in this family.

GEOGRAPHIC SETTING: Cole soils are on flood-plain steps, stream terraces and alluvial fans at elevations of 50 to 1,500 feet. Slopes are 0 to 5 percent. The soils formed in alluvium from mixed sources. The climate is subhumid with warm or hot dry summers and cool moist winters. Mean annual precipitation is 25 to 50 inches. Average January temperature is 55 to 61 degrees F. The frost-free period is 150 to 290 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the [Bale](#), [Botella](#), [Soquel](#), [Clear Lake](#), [Cortina](#), Pajaro, and [Yolo](#) soils. Clear Lake soils are clayey throughout and have intersecting slickensides. Cortina soils have an ochric epipedon and have a loamy-skeletal control section. Pajaro soils lack an argillic horizon, have a fine-loamy control section, and have an aquic moisture regime. Yolo soils have an ochric epipedon, lack an argillic horizon, and have a fine-silty control section.

DRAINAGE AND PERMEABILITY: Somewhat poorly drained; slow runoff; slow permeability. Many areas have been artificially drained or have drainage altered by gullyng.

USE AND VEGETATION: Used mostly for production of orchards, vineyards, truck crops, and irrigated pasture. Uncultivated areas have oak-grass vegetation with some shrubs and forbs.

DISTRIBUTION AND EXTENT: North coastal counties, California. The soils are moderately extensive. MLRA is 14.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Davis, California

SERIES ESTABLISHED: Lake County, California. Clear Lake Area 1927.

REMARKS: The activity class was added to the classification in February of 2003. Competing series were not checked at that time. - ET

Diagnostic horizons and features recognized in this pedon are:

Mollic Pachic epipedon -- the zone from 0 to 35 inches (Ap, BAt, Bt1)

Argillic horizon -- the zone from 6 to 62 inches (BAt, Bt1, Bt2, Bt3)

Edits made after sdjr projects-AEC

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