NOVEMBER 3, 2020

TO:
Kim Gardner

SUBJECT:
Biological Resources Regulatory Constraints Analysis for Potential Cannabis Cultivation on Property at 10535 High Valley Road, Clearlake Oaks, California

TEXT:
Purpose and Scope of Work

The purpose of this analysis was to inventory biological resources at a reconnaissance-level effort and identify potential biological resources regulatory constraints to development of the 197-acre property at 10535 High Valley Road, Clearlake Oaks. The client identified two areas, approximately 1 acre and 3 acres in size, in the western and southern portions of the Property that are proposed for Cannabis cultivation.

The scope of work was:

- Perform a reconnaissance-level field survey and look for special-status species and sensitive habitats
- Using GIS software, map all general habitat types occurring on the property
- Informally map any and all potential waters of the U.S. on the property (i.e., wetlands and channels)
- Summarize the potential for special-status species or habitats to occur within the study area and identify any potential biological resource regulatory issues that may constrain development

Note that other potential environmental regulatory constraints to development were not analyzed, such as flooding or drainage, cultural resources, geologic hazards, or hazardous materials. A full biological resources assessment was not conducted as part of this analysis.

Methods

Prior to conducting the field survey, the following information sources were reviewed:

- Client's engineering or design drawings (none were available);
- United States Geologic Survey (USGS) 7.5-degree minute topographic quadrangle maps and aerial photography;
- United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps;
- Spatial query of the latest version of the California Natural Diversity Database (CNDDB)
- United States Fish and Wildlife Service (USFWS) species list (IPaC Trust Resources Report).
- USFWS National Wetland Inventory Maps; and
- Any readily-available studies performed previously (none found).

Tim Nosal, M.S., conducted a field assessment on October 28, 2020. A variable-intensity pedestrian survey was performed of the Study Area, modified to account for differences in terrain, vegetation density, and visibility. The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Habitat types occurring in the Study Area were mapped on aerial photographs, and information on habitat conditions and the

suitability of the habitats to support special-status species was also recorded. The Study Area was also informally assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats. The CNDDB was queried and any reported occurrences of special-status habitats or species were plotted in relation to the Study Area boundary using GIS software (see Exhibits).

Results

Special-status Habitats
The property contains 2 terrestrial natural communities: chaparral and oak woodland. The CNDDB reported no special-status habitat occurrences on the property. Small areas of special-status habitats were detected within the Study Area during the field survey: nine ephemeral (Class III) channels. No wetlands were detected.

Special-status Animals
No special-status animal species were detected within the Study Area during the field survey. The CNDDB reported no special-status animal occurrences on the property. Special-status animals are not considered to be highly likely, or even moderately likely, to occur in the project area.

Special-Status Plants
No special-status plant species were detected within the Study Area during the field survey. The CNDDB reported no special-status plant occurrences on the property. Special-status plants are considered to be moderately likely on the property because native chaparral and woodland vegetation will be disturbed/removed in order to install this project. Several special status plants are known to occur on similar habitats and rare plants have been reported in the vicinity. No soils derived from volcanic or serpentine parent material are mapped in or adjacent to the project. A rare plant (botanical) survey is recommended during the blooming season.

Protected Water Resources
The informal aquatic resources assessment conducted during the field survey detected nine ephemeral channels (Class III watercourses) but no wetlands.

Nesting Birds
No active nests were detected during the field survey. The property contains suitable nesting habitat for various bird species because of the presence of trees, poles, and dense brush.

Potential Biological Resource Development Constraints, Regulatory Requirements, And Recommendations

Special-Status Habitats
Channels are protected by the Porter Cologne Act and by CDFW under Fish and Game Code Section 1600 *et seq*. Clean Water Act permits and a Streambed Alteration Agreement would need to be finalized before this habitat could be cleared. A buffer of at least 50 feet from ephemeral channels is required by the Water Board; a buffer of 100 feet may be required by Lake County. We recommend that project areas stay at least 100 feet away from all channels.

Lake County does not have a specific ordinance protecting native trees. However, under the Cannabis Ordinance 3084, Section 4, Subsection iii) Prohibited Activities (a) Tree Removal, Lake County restricts tree removal as follows:

> *"The removal of any commercial tree species as defined by the California Code of Regulations section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and*

the removal of any true oak species (Quercus species) or Tan Oak (Notholithocarpus species) for the purpose of developing a cannabis cultivation site should be avoided and minimized. This shall not include the pruning of any such tree species for the health of the tree or the removal of such trees if necessary for safety or disease concerns."

During the permitting process, Lake County requires mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

Forest resources may occur on the property. If construction requires the removal of commercial tree species, a Cal Fire Permit will be necessary, such as a Less than 3 Acre Conversion Exemption, a Public Agency, Public and Private Utility Right of Way Exemption, a Notice of Exemption from Timberland Conversion Permit for Subdivision, or an Application for Timberland Conversion Permit.

Special-Status Animal Species

No surveys are needed unless construction will occur in the channels. If any listed species are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed.

Special-Status Plant Species

Performance of a botanical survey in the spring blooming period is recommended to ensure that rare plants are not present.

Nesting Birds

The property contains suitable nesting habitat for various bird species because of the presence of trees, poles, and dense brush. California Fish and Game Code protects all nesting birds and their nests, and migratory birds are also protected under the Migratory Bird Treaty Act of 1918. If ground clearing and tree felling is performed in the future during the bird nesting season (February 15 through August 31), a pre-construction nesting bird survey is recommended. If active nests are present in the project area during construction of the project, CDFW 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.

Protected Water Resources

The State Water Resources Control Board's Order WQ 2019-0001-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order) has various development restrictions, including but not limited to the following:

- cultivation must comply with the Minimum Riparian Setbacks, as summarized in the following table.

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

The Class III channels must be avoided with a 50-foot buffer. Lake County may require a 100-foot buffer. As designed, the project area is at least 100 feet away from these features.

It is recommended that a formal delineation of jurisdictional waters be performed before construction work, or ground disturbance, is performed within 50 feet of any wetland or channel. If the USACE determines that the water features are subject to their jurisdiction, a CWA 404 permit must be obtained and mitigation performed before the ditches and marsh are filled. If waters of the State are present, a Streambed Alteration Agreement may be needed before ground disturbance occurs in riparian habitat, wetlands, or within top of bank of channels. CWA 401 water quality certification will also be necessary.

Other Concerns

Much of the Property has slopes that exceed 30%. Estimated slopes within the cultivation areas range from approximately 15%-30%. If any part of the project areas, or the disturbed areas, are greater than 30%, the project will be classified as Moderate Risk. If any part of the project areas, or the disturbed areas, are greater than 50%, the project will be disallowed by the Water Board.

If construction activities disturb more than 1 acre of soil, the project proponent will need to enroll in the Construction General Stormwater Permit, State Water Board Order No. 2009-0009-DWQ.

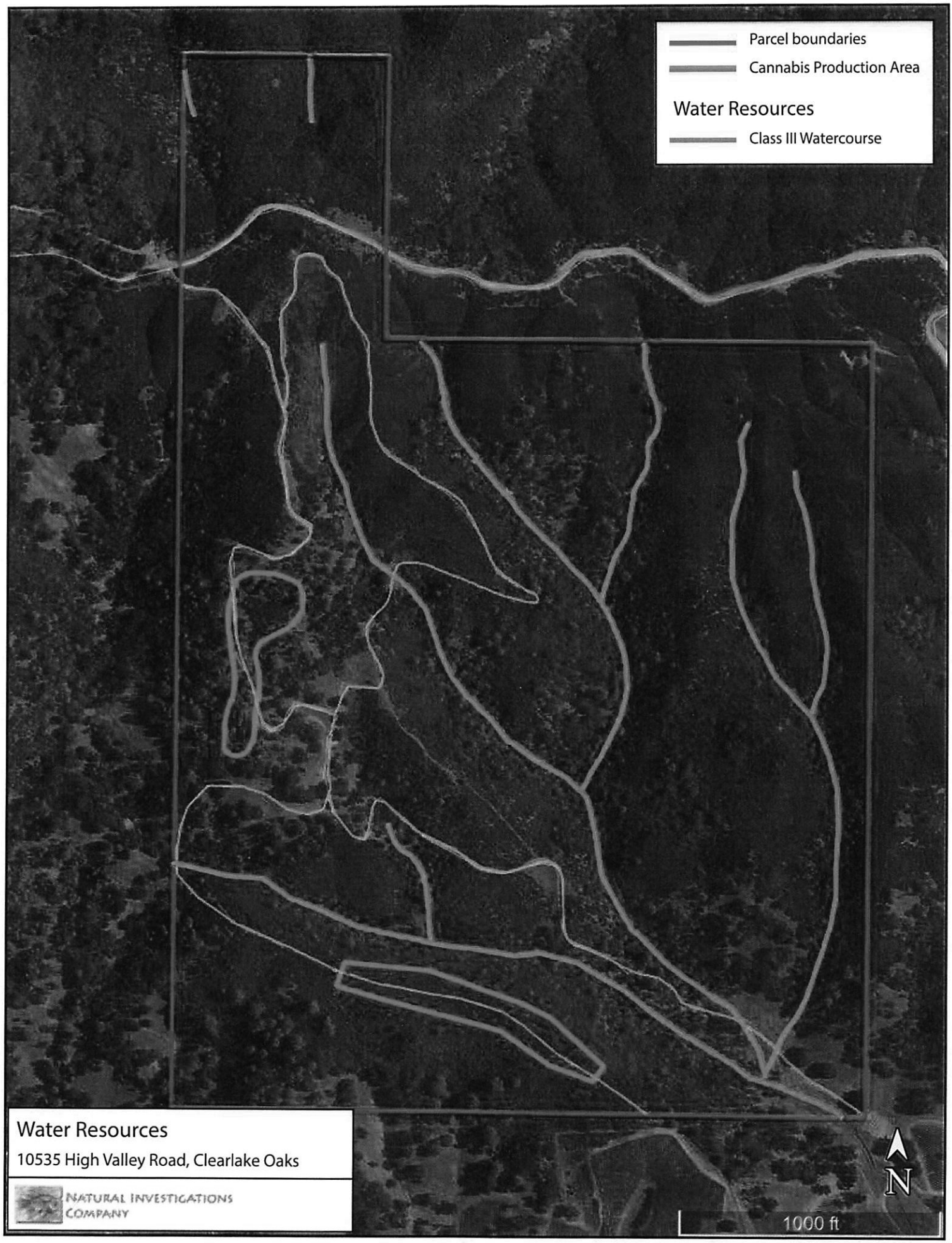
If development of the cultivation operation will result in the grading of more than 50 cubic yards of earthen material, a County Grading Permit and Erosion Control Plan may be required.

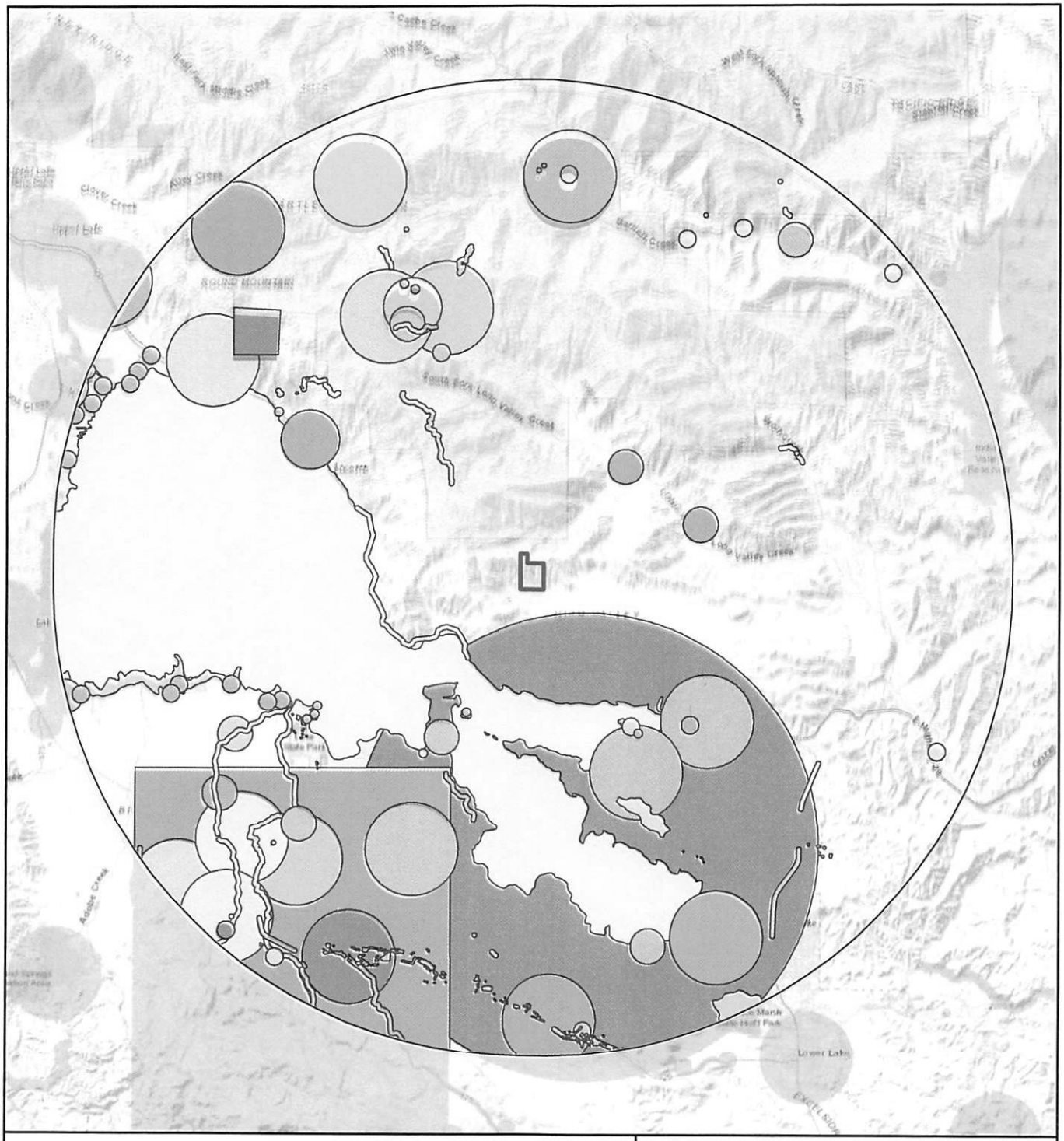
If natural habitats need to be cleared for the cultivation operation, the Central Valley Regional Water Quality Control Board may require a Biological Resources Assessment and a Cultural Resources Inventory Report.

AUTHORED BY:

G. O. Graening, PhD, MSE

Exhibits


Parcel boundaries
Cannabis Production Area
Water Resources
Class III Watercourse
Water Resources
10535 High Valley Road, Clearlake Oaks
NATURAL INVESTIGATIONS COMPANY
N
1000 ft



Parcel Location 10 Mile Buffer

1:190,000 1 inch = 3 miles

0 3 6 Miles

N

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist inshowing features discussed in an attached document. Natural Investigations Company can not guarantee the accuracy and content of electronic files.The master file is stored by Natural Investigations Company and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.Data Sources: California Department of Fish and Wildlife. 2020. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California.
(updated monthly by subscription service)

Special-Status Species Occurrences Map

10535 High Valley Rd

Clearlake Oaks 1996 Quadrangle:Township 14N, Range 8W, Secion 14

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Parcel Location

Wetlands and Channels

0 150 300 Meters

0 600 1,200 Feet

1:6,000

10535 High Valley Rd
National Wetlands Inventory
Features Map

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Map Date 10/14/2020

Clearlake Oaks 1996 Quadrangle:Township 14N, Range 8W, Secion 14