January 9, 2018

Mr. Kevin McKenny
P.O. Box 115
Cutten, CA 95534

Dear Mr. McKenny:

Subject: Revised **Notice of Violation** for activities at Assessor's Parcel Number 015-111-09, 2725 Lucas St., Eureka

Files: CIWQS PIN CW-840680; WDID # 1B171779WNHU

This notice has been revised to correct the date.

You are receiving this Notice of Violation for violations of (1) the federal Clean Water Act, (2) the Water Quality Control Plan for the North Coast Region (Basin Plan), (3) the California Water Code, and (4) the *National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009[1] (Construction General Permit), as a result of unauthorized construction activities at 2725 Lucas Street, Eureka, Humboldt County (the "Site").

Background

Regional Water Board staff received correspondence from California Department of Fish and Wildlife (CDFW) staff on September 6, 2017, indicating disturbance to waters of the state[2] from earth moving activities at the Site. CDFW subsequently issued a Notice of Violation to you on September 22, 2017, for unpermitted grading of state waters in violation of Fish and Game Code sections 1602 and 5650.

On October 4, 2017, Regional Water Board and U.S. Army Corps of Engineers (Corps) staff obtained consent through your representative, Lisa Stromme, to inspect the Site. Regional

[1] as Amended by 2010-0014-DWQ & 2012-0006-DWQ

[2] "Waters of the state" means "any surface water or groundwater, including saline waters, within the boundaries of the state." (Wat. Code, § 13050(e).) All "waters of the United States" in California are waters of the state. (*See* 33 C.F.R. § 328.3 (defining "waters of the United States," including wetlands for permitting decisions under federal Clean Water Act section 404).)

Water Board produced an Inspection Report that is Attachment A to this Notice of Violation. Observations by Regional Water Board staff during the inspection included: a graded Third Slough floodplain; removed riparian vegetation; slash and waste[3] pushed into riparian areas; underdrains and pipes installed in the Third Slough floodplain; and a drainage outfall placed into the Third Slough channel. The United States Fish and Wildlife National Wetlands Inventory identifies a portion of the disturbed Third Slough floodplain as freshwater emergent wetland (see Attachment B). It is very likely that prior to site disturbance, there were additional wetlands outside the boundary shown on the National Wetlands Inventory wetland map, however, additional investigations are required to determine the extent of wetlands prior to site disturbance.

Applicable Legal Authority and Requirements

Federal Clean Water Act

Any person who discharges dredged or fill material to waters of the United States, including wetlands, must obtain a federal Clean Water Act section 404 permit from the U.S. Army Corps of Engineers, and Clean Water Act section 401 water quality certification from the Regional Water Board to ensure the project will comply with Clean Water Act sections 301, 302, 303, 306, and 307.

Basin Plan

The Water Quality Control Plan for the North Coast Region (Basin Plan) is the Regional Water Board's master planning and policy document that includes water quality standards prepared pursuant to Clean Water Act section 303, as well as discharge prohibitions and implementation plans to achieve those water quality standards. Any activities affecting waters of the state, including wetlands, in the North Coast Regional Water Board jurisdiction must comply with the Basin Plan.

California Water Code

California Water Code (Water Code) section 13376 prohibits discharges of dredge or fill material to waters of the state and United States unless authorized by a permit issued by the Regional Water Board or State Water Board. A person who discharges dredge or fill material to waters of the state and United States must file a report of discharge in compliance with Water Code section 13260. Water Code section 13260 requires *"[a] person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state"* to submit a report of waste discharge.

Construction General Permit

The Construction General Permit applies to any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of an acre or more. Any person that discharges, proposes to discharge, or is suspected by a regional or the state water board of discharging storm

[3] Water Code section 13050 defines "waste" as "sewage and any and all other waste substances, liquid, solid, or gaseous, or radioactive, associated with human habitation, or of human or animal origin . . . ."

water associated with construction activity that has not obtained coverage under an appropriate storm water NPDES permit, is required to submit a Notice of Intent to obtain coverage to the State Water Board.

Alleged Violations

Federal Clean Water Act

On September 1, CDFW staff reported observing a pipe, wood debris, and concrete that appeared to have been recently placed in the Third Slough channel (see Attachment A, Figures 29 and 30). This material is considered fill material and installation of this material in waters of state would have required a section 404 permit from the U.S. Army Corps of Engineers and a Clean Water Act section 401 certification from the Regional Water Board. You did not apply for or obtain a Clean Water Act section 401 water quality certification.

Basin Plan

The Basin Plan includes the following discharge prohibition: "[t]he placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited." Placement of wood and sidecast dirt from grading into waters of the state at the Site is a violation of the Basin Plan.

California Water Code Sections 13260 and 13376 Violations

Placement of the pipe and debris as shown in Attachment A, Figures 29 and 30, would also require Waste Discharge Requirements (WDRs) from the Regional Water Board, pursuant to Water Code sections 13260 and 13376. You did not report this discharge of waste to the Regional Water Board. Failure to report waste discharges and placement of waste in state waters without WDRs is a violation of California Water Code sections 13260 and 13376.

Construction General Permit Violation

The disturbed area at the Site is more than one acre and subject to the requirements of the Construction General Permit.

The Regional Water Board directed you in a letter dated October 6, 2017, to file a Notice of Intent (NOI) for coverage under the Construction General Permit. As of the date of this letter, you have not done so. Failure to obtain coverage under the Construction General Permit is a violation of the Clean Water Act (CWA) and California Water Code section 13399.30. You must file an NOI no later than January 25, 2018 to comply with the Construction General Permit. Failure to submit a required NOI may subject you to an enforcement action by the Regional Water Board and the assessment of civil liability that is not less than $5,000 per year of noncompliance or fraction thereof. To avoid potential civil liability, file for coverage under the Construction General Permit. Information on the Construction General Permit and instructions for enrolling under the permit can be found on the following websites:

- http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml
- http://smarts.waterboards.ca.gov

Compliance with this requirement to file for enrollment in the Construction General Permit does not preclude enforcement for other violations of the Water Code.

The Regional Water Board is presently reviewing the Site conditions and violations, and will follow up with an additional enforcement order providing additional information and requirements to remedy Site impacts.

For any questions on this matter, please contact Brendan Thompson at 707-576-2699 or via e-mail at Brendan.Thompson@waterboards.ca.gov.

Sincerely,

Digitally signed by Joshua Curtis
Date: 2018.01.09 09:26:10 -08'00'

Water Boards

Joshua Curtis
Assistant Executive Officer

180109_BJT_er_2725LucasSt_NOV

Attachment A: November 15, 2017 Inspection Report
Attachment B: National Wetlands Inventory Map

Certified - Return Receipt Requested

cc: Via e-mail, with attachments:
Holly Costa, U.S. Army Corps of Engineers (USACE), Holly.N.Costa@usace.army.mil
Kasey Sirkin, USACE, L.K.Sirkin@usace.army.mil
Scott Bauer, California Department of Fish and Wildlife (CDFW), Scott.Bauer@wildlife.ca.gov
Cameron Purchio, USACE, Cameron.R.Purchio@usace.army.mil
Lisa Stromme, Moonstone Assoc., LStromme@moonstoneassociates.com
Gordon Leppig, CDFW, Gordon.Leppig@wildlife.ca.gov
Rebecca Glyn, U.S. Environmental Protection Agency, Glyn.Rebecca@epa.gov
Brendan Thompson, North Coast Regional Water Quality Control Board (NCRWQCB), Brendan.Thompson@waterboards.ca.gov
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Heather Mapes, State Water Resources Control Board (SWRCB), Heather.Mapes@waterboards.ca.gov
Mayumi Okamoto, SWRCB, Mayumi.Okamoto@waterboards.ca.gov

Attachment A—November 15, 2017, Inspection Report

Inspection Report Memorandum
2725 Lucas Street, Eureka, Humboldt County

Date: December 13, 2017

From: Brendan Thompson, Environmental Scientist, Regional Water Board

To: Stephen Bargsten, Senior Environmental Scientist, Regional Water Board

Subject: 2725 Lucas Street Inspection

I. Introduction

North Coast Regional Water Quality Control Board (Regional Water Board) staff received a copy of the California Department of Fish and Wildlife's September 22, 2017, Notice of Violation of Fish and Game Code Sections 1602 and 5650 (CDFW NOV), for alleged alterations to state jurisdictional waters at 2725 Lucas Street, in the city of Eureka, Humboldt County Assessor's Parcel Number (APN) 015-111-09 (the site). According to Parcel Quest, the site owner is Kevin McKenny, who has a P.O. Box in Cutten, California.

Because I did not have an e-mail address or phone number for Mr. McKenny, I sent two separate e-mails to Mr. Mckenny's consultant, Eric Johnson of Samara Restoration, on October 2 and 3, 2017, notifying him that Regional Water Board staff planned to visit the site on Wednesday morning, October 4, 2017, with staff from the United States Army Corps of Engineers (Corps). I noted that the purpose of the visit was to follow-up to alleged impacts to jurisdictional waters, per the CDFW NOV. CDFW staff copied us on an e-mail to Mr. Johnson that identified him as a consultant hired by Mr. McKenny to address conditions at the site.

II. Inspection

Myself, as well as Kasey Sirkin and Cameron Purchio from the U.S. Army Corps of Engineers arrived at the site on Wednesday, October 4, at 9:30 a.m. Also joining us at the site was Lisa Stromme, a private engineer hired by Mr. McKenny. Ms. Stromme granted us permission to enter the site and take photographs.

The site consists of four general areas:

Upper area: At street level, there is a flat, disturbed area with ruderal vegetation. To the west, along the north-south property line, there is a short slope between the flat area to the east and the neighboring residence to the west. There is a jurisdictional wetland seep emerging from this slope.

Lower floodplain: Below the upper area there is a large, flat, recently disturbed floodplain area situated between Lucas Street to the South, Third Slough and riparian vegetation to the east and north, and a densely vegetated wetland to the west. Third Slough extends south into the parcel before going into a culvert at approximate latitude/longitude 40.79230, -124.13737.

Ramps: Two approximately 20-30-foot-wide earthen ramps between the upper and lower areas are on either side of the parcel, along the western north-south and east west connecting the upper tier with the lower floodplain.

Slope: Between the upper and lower areas and between the two ramps, there is an approximately 60 degree disturbed slope. The slope is covered with ruderal vegetation such as Himalayan blackberry and mustard plants.

Attached to this memorandum is a photo log that includes observations. My inspection findings are as follows:

- At least three underground pipes were installed throughout the site, but likely more, which likely will alter the hydrology to eliminate or otherwise negatively impact wetland soil conditions by reducing the soil moisture content level and duration (see Figures 12, 17, 20, and 24). Ms. Stromme informed us that Mr. McKenny wished to develop the site;

- The entire parcel showed indications of recent disturbance. Indicators included unconsolidated earth, pervasive applied straw cover, newly sprouted and short vegetation, and debris piles consisting of woody vegetation and cementitious materials. It appeared that heavy equipment had likely been used at the site for trench excavation and grading. It also appeared that earthen material had been pushed into wetland areas along the western and southern parcel boundaries;

- It is unclear to what extent jurisdictional resources existed prior to disturbance—additional investigation is needed. Staff used an online tool called EcoAtlas, and generated a landscape profile report (see Attachment B) based on available data layers from various federal and state agencies—the landscape profile report details

what types of wetlands, waters, and special-status species may be found at the Site; and

- In the upper area at the southwestern corner of the parcel, there is a hillside seep that appears to have been impacted (see Figures 10-12). The seep includes a small area with un-mowed wetland vegetation present, and wetland hydrology, but the vegetation abruptly ends at one point where wetland vegetation has been disturbed, either by mowing, or by grading; wetland hydrology wasn't observed in the disturbed areas. Much of the area was covered in what appeared to be applied straw.

III. Conclusions and Recommendations

At the conclusion of the inspection, I informed Ms. Stromme that the Regional Water Board would likely be issuing a Notice of Violation and California Water Code section 13267 requirement for technical information in response to site conditions. I also recommended that no further work be done at the site until authorized by the Regional Water Board. We sent out a letter to Mr. McKenny on Friday, October 6, recommending no further work or import of export of materials from the site. The letter also instructed him to enroll the site for coverage under the Construction General Permit (State Water Board Order No. 2009-0009-DWQ as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ).

Here are my recommendations to management:

1. Issue a Cleanup and Abatement Order (CAO) to require immediate removal of all installed pipes and drains within the parcel boundaries;

2. Due to the disturbed nature of the site, it is difficult to identify precisely where and what jurisdictional waters and wetlands may have existed. As part of the CAO , require a forensic wetland and waters delineation should be performed by a qualified professional experienced in forensic wetland investigation, employing historical photos, public records (e.g., city building department documents), and physical site investigation;

3. As part of the CAO, require a detailed report and timeline of all activities performed on the site since purchased by Mr. McKenny;

4. As part of the CAO, require a report of pre-impact site that details all hydrological modifications made to the site;

5. Should the above investigation indicate impacts to jurisdictional resources, require restoration to conditions that existed prior to impacts to jurisdictional resources,

during Mr. McKenny's ownership of the property. This should include long-term monitoring to ensure jurisdictional resources are successfully re-established. If full restoration is not feasible, require compensatory mitigation and associated monitoring for any temporal and permanent impacts.

Attachment A: Photo Log
Attachment B: Landscape Profile Report dated December 13, 2017 from EcoAtlas

Attachment A to Inspection Memo: Photo Log

Attachment: Photo Log

2725 Lucas St., October 3, 2017 Site Visit, Photo Log

All photos taken by Brendan Thompson, except photos in Figures 1-4, and 7-8

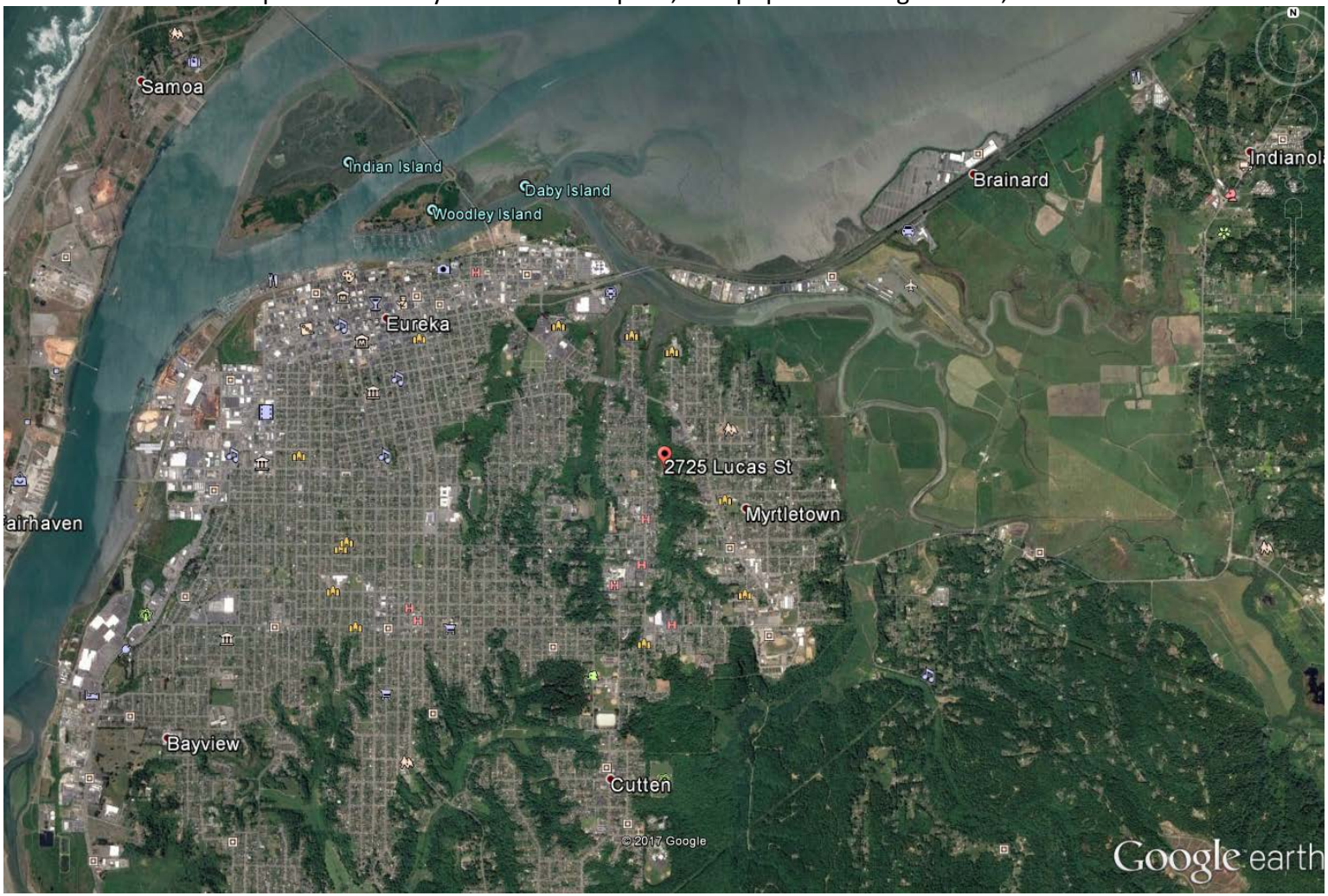


Figure 1: Project location

Attachment A to Inspection Memo: Photo Log

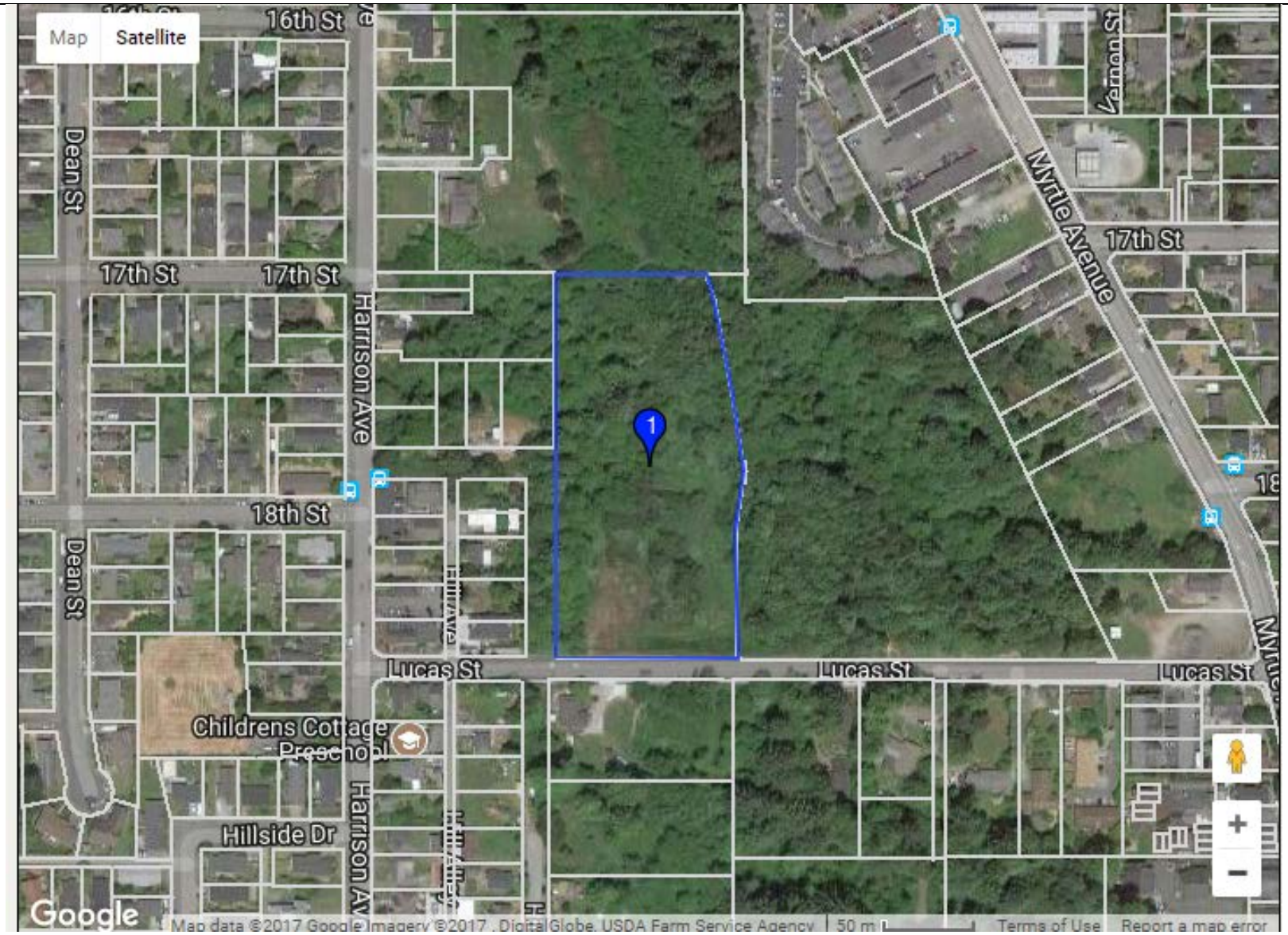


Figure 2: Parcel map accessed from ParcelQuest on 10/16/17. The parcel is 4.5 acres.

Attachment A to Inspection Memo: Photo Log

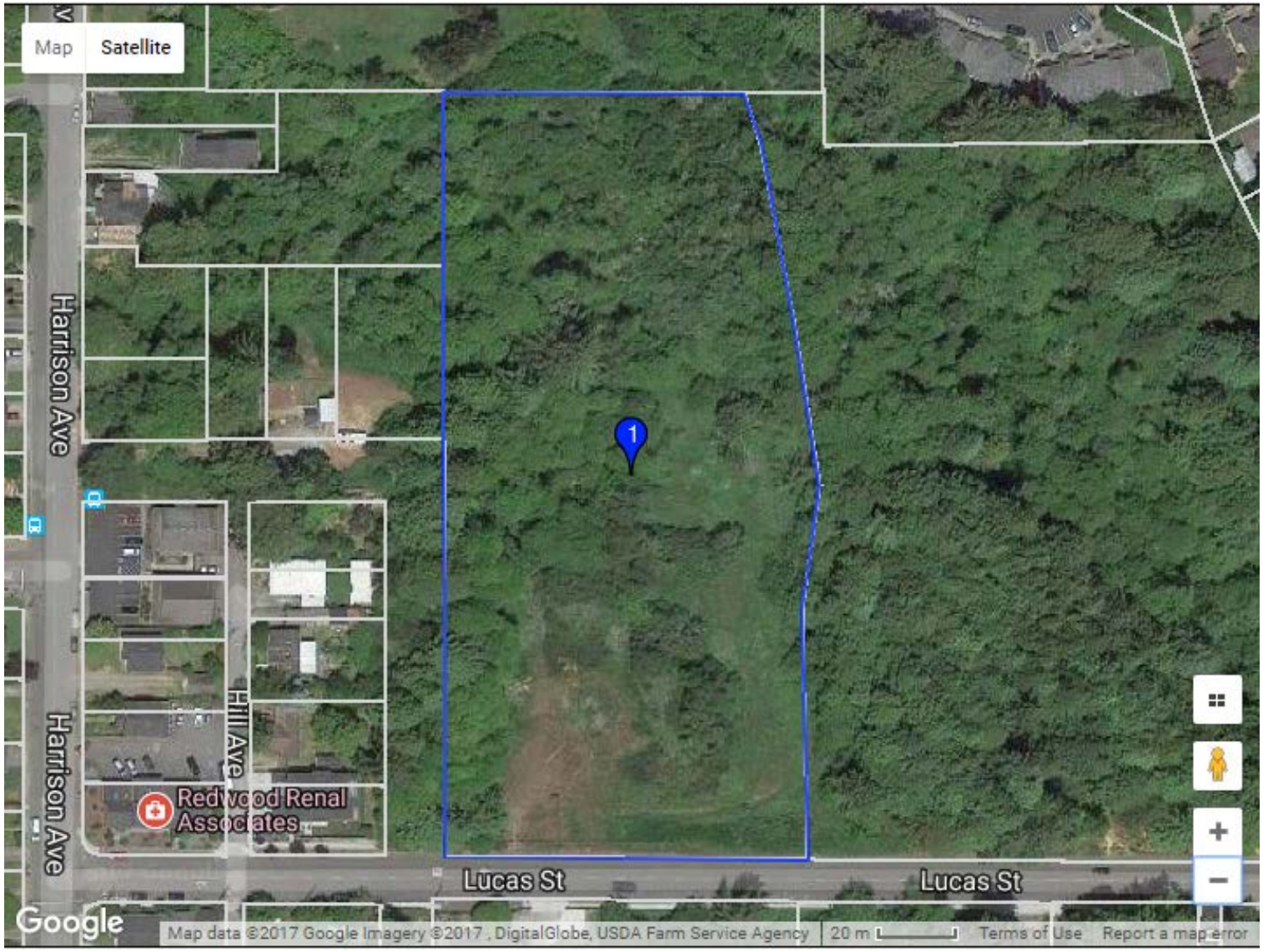


Figure 3: Close-up of the parcel from image accessed from ParcelQuest on 10/16/17

Attachment A to Inspection Memo: Photo Log

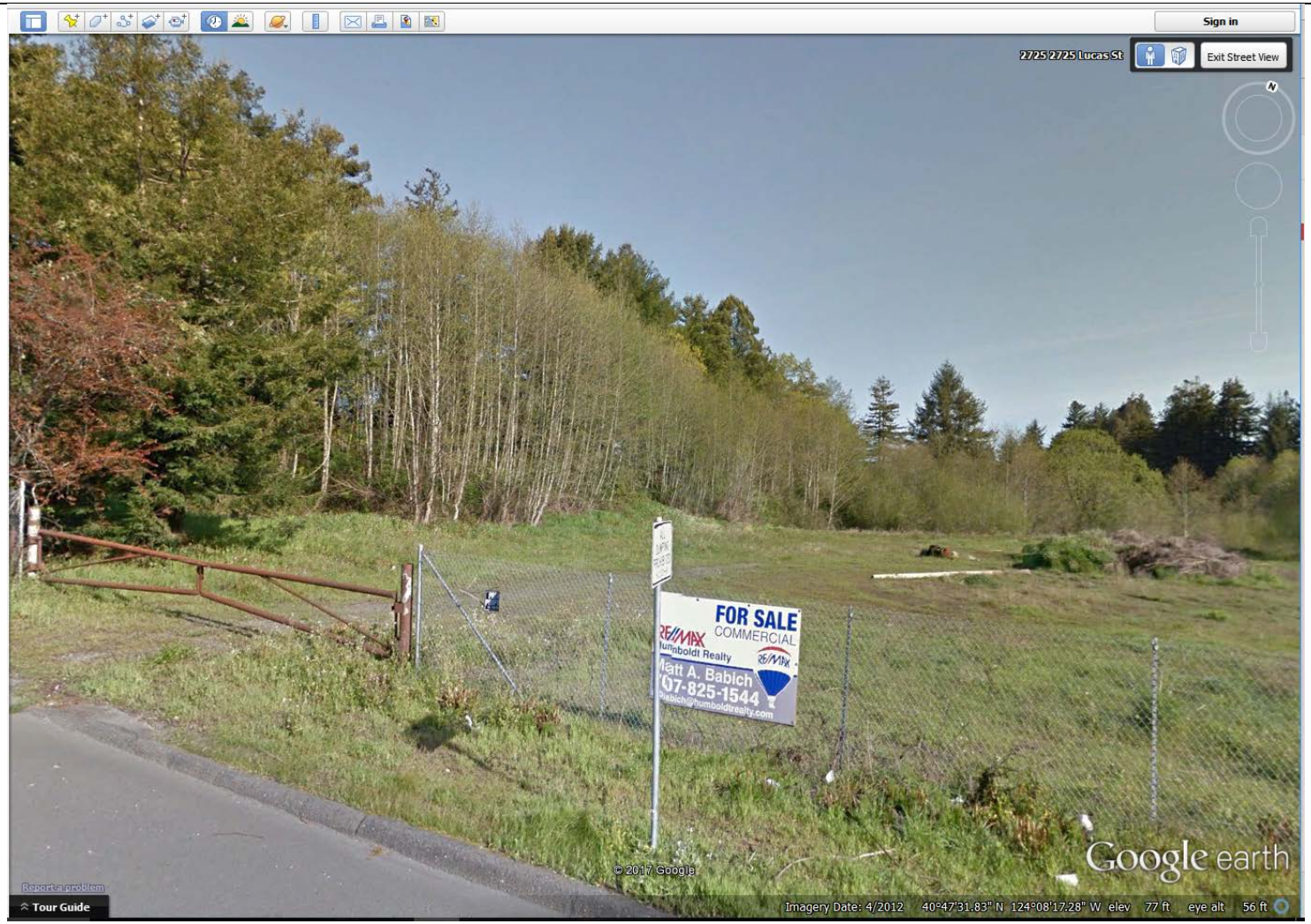


Figure 4: Google Earth street view accessed on 10/16/17. Image date is April 2012, looking north at the parcel entrance. What appear to be a band of alders along the left side of the photo were no longer there at the time of the inspection as shown in Figure 5 and Figure 6**.**

Attachment A to Inspection Memo: Photo Log

Figure 5: 10/3/17 inspection photo at the entrance looking north.

Attachment A to Inspection Memo: Photo Log

Figure 6: 10/3/17 inspection photo looking west towards southwest corner of the parcel. Hillside seep is circled. Note the abrupt change in vegetation height due to disturbance.

Figure 7: Google street view accessed on 10/16/17. Image date is April 2012.

Figure 8: Google Earth street view accessed on 10/16/17. Image date is April 2012. Looking north at the lower floodplain area. This 2012 image shows vegetation on the slope (orange circle) that was not present at the time of the site visit (see Figure 40). Vegetation along the right side of the photo extends further into the floodplain than at the time of the inspection.

Attachment A to Inspection Memo: Photo Log

Figure 9: 10/3/17 inspection photo, standing at the edge of the upper area looking northeast toward Third Slough. Drainage feature shown in Figure 26 is circled in orange.

Figure 10: Hillside seep and vegetation at the southwest corner of the parcel. Abrupt change in vegetation due to disturbance. Ponding (wetland hydrology) was visible in the seep area with tall vegetation (see Figure 11), but not evident to the north of the area where vegetation had been disturbed. Approximate visible seep location is in the orange box.

Figure 11: Evidence of ponding amid wetland vegetation within hillside seep area at southwest corner of parcel.

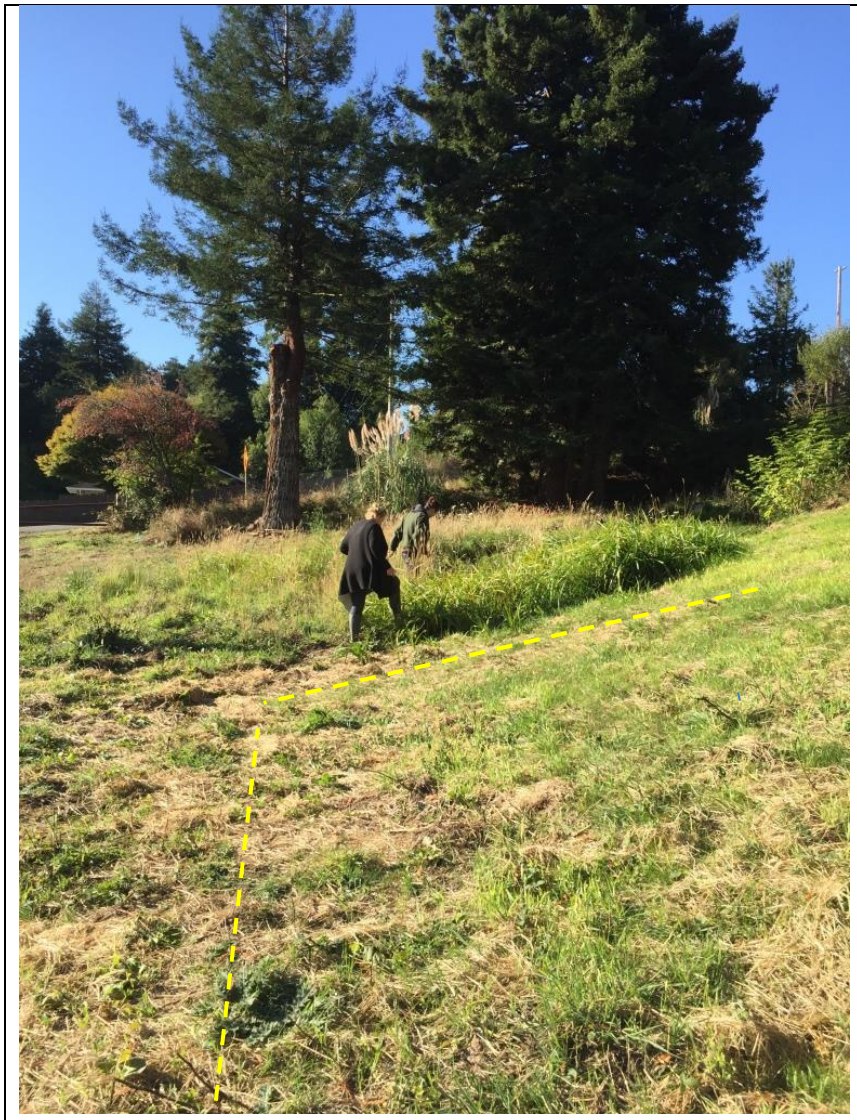


Figure 12: View of hillside seep looking south. The photo was taken down gradient of where the people are standing. Based on ground topography observations, it appeared there may have been a linear excavation in the areas indicated by the dashed yellow line. Further investigation is needed.

Figure 13: Standing at the hillside seep location and looking east.

Figure 14: Standing on the edge of the upper area looking northeast. The yellow arrow points to the vertical pipe shown in Figure 15 and Figure 16.

Figure 15: Vertical pipe shown in Figure 14.

Figure 16: Inside the vertical pipe. There were three pipes protruding into the vertical pipe at differing elevations. At the lowest elevation there was a black, perforated plastic pipe—this pipe is hard to see in the photo and is within the orange circle. Higher in elevation above that pipe were two blue, solid plastic pipes. Figure 17 shows the likely pipe flow paths.

Figure 17: Apparent flow paths of three pipes shown in Figure 16. The dashed yellow line represents the black perforated pipe (see Figure 25 and Figure 26) and the solid blue lines represent the solid, blue plastic pipes--see Figure 22 and Figure 23 for the green flow path, and Figure 27 and Figure 30 for the blue flow path—these pipes appear to drain to the forested wetland and Third Slough, respectively. The debris pile circled in orange is discussed in Figure 36.

Figure 18: Standing on the upper area looking northwest at the forested wetland area and ramp along the western parcel boundary. Historical aerial imagery accessed on Google Earth shows that the ramp area was formerly vegetated/forested.

Figure 19: Standing next to the wet forested area shown in Figure 18, looking south. It appears that earth was graded adjacent to and/or into this wet forested area.

Figure 20: Looking northwest at the wet forested area and standing at approximately the same location shown in Figure 19. In the orange circle is a possible pipe drain (see Figure 21) lying in a very wet area.

Figure 21: Close up of the possible drain shown in Figure 20. This was coming out of the ground and appeared to be a pipe covered in filter fabric.

Figure 22: Looking northeast along the margin of the wet forested area. It appears that the upper-most pipe in the vertical pipe would discharge into this area through an outlet buried amongst a pile of wood pushed into the wetland (see Figure 23 and Figure 24). The green line shows the approximate location of the pipe, as extrapolated from the direction of the uppermost pipe in the vertical pipe.

Figure 23: The outlet pipe described in Figure 22 likely discharges somewhere underneath this pile of wood debris. I could not find the outlet, but did not move the wood to try and find it.

Figure 24: A close-up of the wood debris described in Figure 22 and Figure 23. There appeared to be rubble mixed in with the wood—my foot is on a piece of asphalt—relatively fresh dirt and straw were on top of the wood, suggesting recent disturbance in the area.

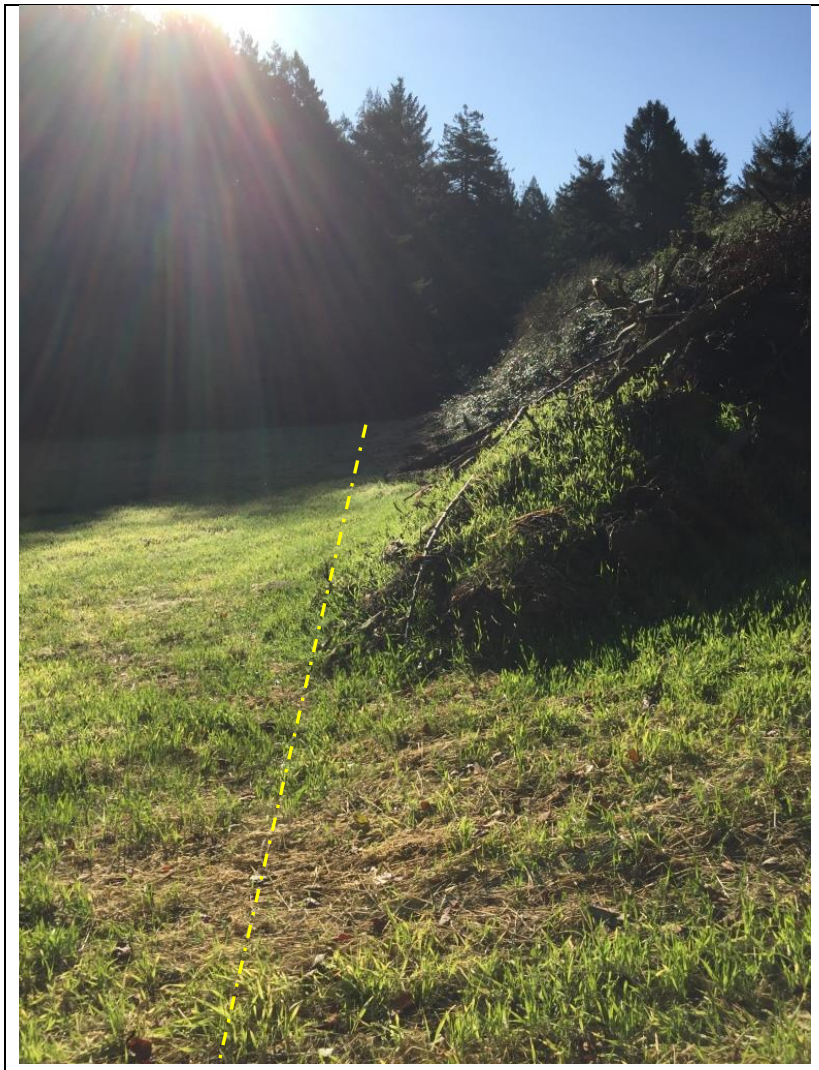


Figure 25: This photo was taken standing at the vertical pipe and looking southeast. The perforated pipe seen at the bottom of the vertical pipe appears to line up with the pipe feature shown in Figure 26. The dashed yellow line approximates the course the pipe would take between these two features, which is along the toe of the slope separating the upper area from the lower floodplain area.

Figure 26: Looking northwest toward the forested wetland and the vertical pipe. There were two black, plastic perforated pipes wrapped in filter fabric sticking out of the ground. It is unknown where each pipe goes, but if one of them goes to the vertical pipe then it may take a path approximated by the dashed yellow line.

Figure 27: Looking northwest from the upper bank of Third Slough to the vertical pipe. It appeared that the uppermost plastic pipe in the vertical pipe would discharge directly into Third Slough via an outfall immediately behind me—the approximate pipe flow path is represented by the blue line—there was a faint linear ground indentation that appeared to perfectly align the discharge location with the vertical pipe.

Figure 28: Looking south at the southernmost extent of an un-culverted Third Slough. The photo in Figure 27 was taken at approximately the first straw bale in the foreground. The pipe outfall shown in Figure 30 is in the channel just to the left of the first foreground straw bale.

Figure 29: A close-up of Third Slough where it enters a culvert at the eastern parcel boundary. The blue plastic pipe outfall is beneath the wood shown within the orange circle (see Figure 30). The concrete rubble to the right of the culvert appeared recently placed; I suspected there may be another drain outlet beneath the rubble, due to circumstances described in Figure 33 and Figure 34, but could not locate an outlet when peering between the rubble.

Figure 30: A view of the outfall, ostensibly a continuation of the uppermost pipe in the vertical pipe. It appeared that wood had been deliberately placed over the outfall.

Figure 31: Looking southwest from the straw bales adjacent Third Slough. In the orange circle is a single straw bale as shown in Figure 30.

Figure 32: There may have been a filled-in excavation beneath this straw bale, as the ground appeared disturbed and relatively loose.

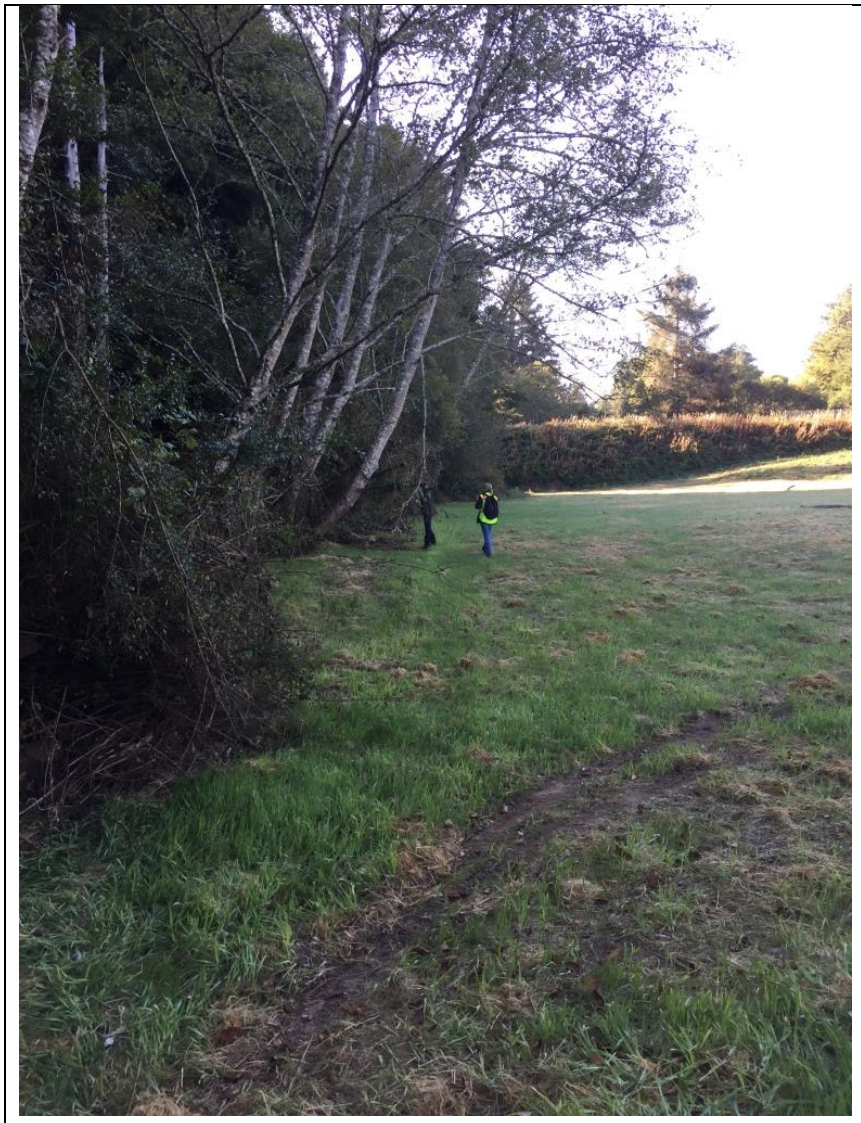


Figure 33: Standing on the upper bank of Third Slough near the culvert entrance looking south along the forested edge. It appeared that there may have been some linear earthwork performed between the people in the distance and the camera vantage point—see Figure 34.

Figure 34: Looking south while standing at the approximate location of the people shown in Figure 33. It appeared that there had been some linear earthwork as made evident by the slight indentation in the ground and unconsolidated gravelly fill (see Figure 35). The orange line represents the approximate location of the likely earthwork. There is likely a pipe or drain at this location.

Figure 35: Light scraping of the soil with my shoe in the area represented by the orange line in Figure 34 uncovered a large concentration of rounded gravel. The presence of this rock suggested that it was backfill rather than native material, and the linear nature of the indentation suggests that there may be a pipe buried in this location. There may be an outfall for this pipe adjacent the Third Slough culvert in the area described in Figure 29.

Figure 36: This pile of debris is shown in the orange circle on Figure 17. The debris is along the northern parcel boundary and was pushed into the riparian zone of Third Slough. I estimate the pile to be approximately fifty feet long (21 steps times 28.6" per step) by twenty feet wide, and approximately five feet high.

Figure 37: The debris pile consisted largely of woody vegetation and dirt, but debris such as asphalt, concrete, and brick was also within the debris pile. This photo shows two pieces of asphalt mixed in with the other debris.

Figure 38: Concrete and nylon twine was in the debris pile. My foot is on a very large piece of partially buried concrete that extends about another 12 inches to the left beyond the overlying branch.

Figure 39: Photo of the debris pile among the riparian vegetation. The pile had been there long enough for some vegetation to start growing over the pile. Because historical photos show a much greater concentration of vegetation on the site, the debris pile contents may have come from the parcel vegetation thinning/removal, particularly from the slope and eastern and western parcel boundaries.

Figure 40: Standing along the eastern parcel boundary looking southwest at the slope area

Figure 41: A close-up of the slope shown in Figure 40. The slope had been recently disturbed and was dominated by ruderal vegetation such as Himalayan blackberry and mustard. There was also rubble on the slope, such as the concrete shown in this photo. The debris pile along the northern boundary also included concrete. Incipient wetland plants such as equisetum and pennyroyal were also observed.

Figure 42: Ruderal vegetation at the top of the slope. There was a significant amount of equisetum amongst the vegetation on the slope and top of slope, suggesting that either wetland conditions exist, or wetland soils were moved to the area from adjacent wetland locations.

Figure 43: An equisetum start emerging from the disturbed ground adjacent the vertical pipe, suggesting that wetland conditions may exist in this area.

Figure 44: Cut riparian vegetation along the eastern parcel boundary.

Figure 45: Cut riparian vegetation along the eastern parcel boundary.

Figure 46: Cut riparian vegetation along the eastern parcel boundary. Fresh dirt perched atop the cut limb indicates recent earth disturbance.

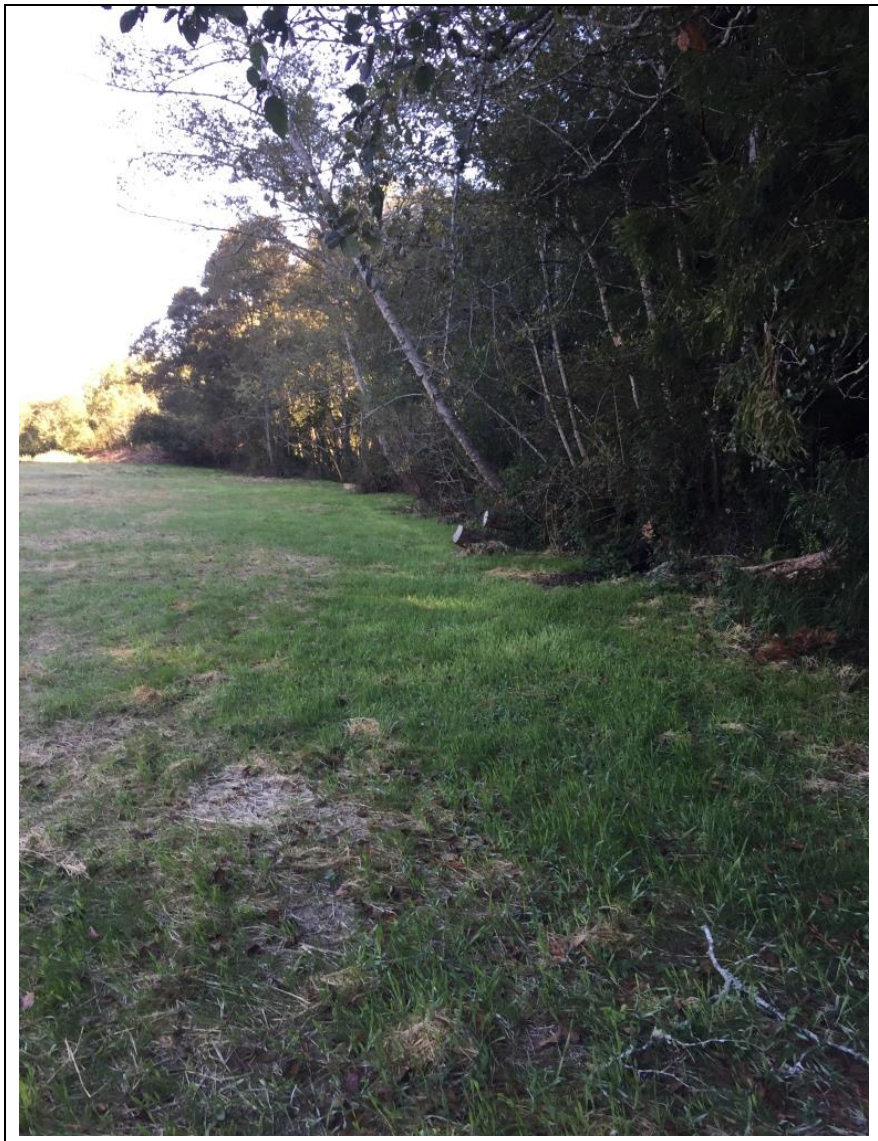


Figure 47: Another view of cut riparian vegetation along the eastern parcel boundary, looking north. It is unclear whether vegetation adjacent and atop the culverted portion of Third Slough is considered riparian vegetation.

Figure 48: Third Slough, somewhere between the debris pile and Third Slough culvert, containing flowing water.

Attachment B: Landscape Profile Report dated December 13, 2017 from EcoAtlas

Landscape Profiles Report

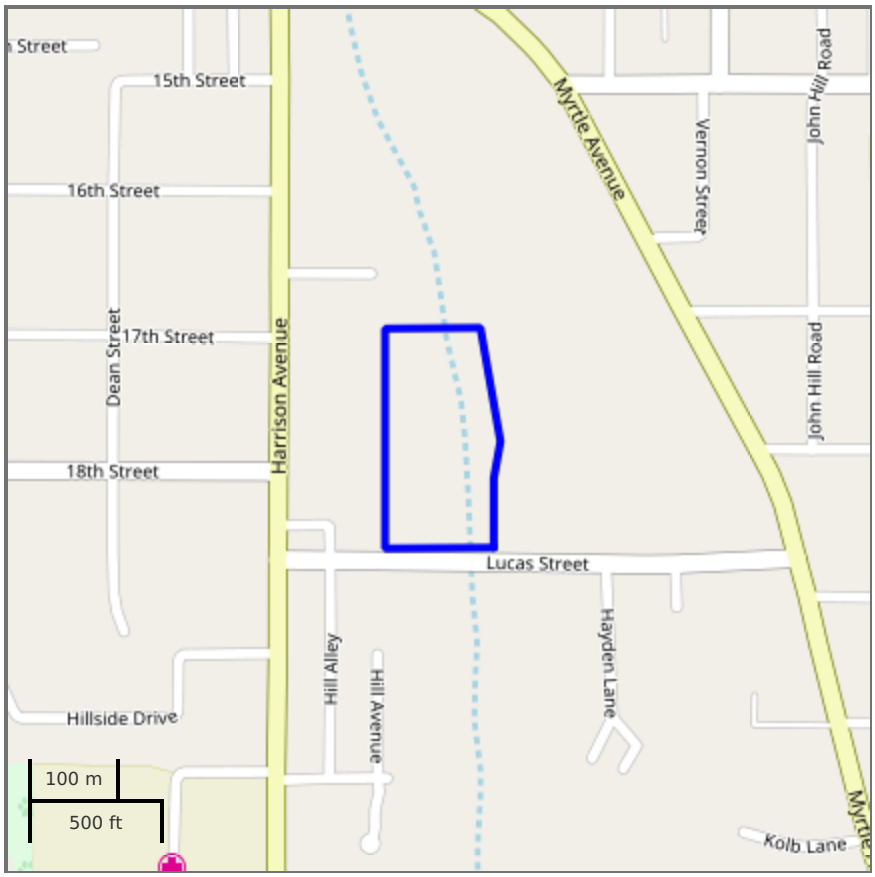
WWW.ECOATLAS.ORG

This Landscape Profile is a compilation of information from EcoAtlas about the abundance, diversity, and condition of aquatic resources for a selected area of California. It also includes information about factors affecting the profile, such as ecological restoration projects, the presence of endangered or threatened wildlife, the diversity and extent of land covers, and the abundance of people. Sources of this information are documented on the EcoAtlas data page.

The purpose of the Profile is to support public policies and programs that protect aquatic resources. Additional information will be incorporated into future versions of the Landscape Profile Tool, based on advice from its user community.

The computational time required to generate a Landscape Profile Report increases with the size of the profile area and the complexity of its aquatic resources.

Detailed location



Regional location

Basemap data provided by
© OpenStreetMap

Area of Interest:

- *2725 Lucas St.* generated by user-defined delineation
- Area: 4.8 acres / 0.0 miles^2
- Estimated Population: 10 persons

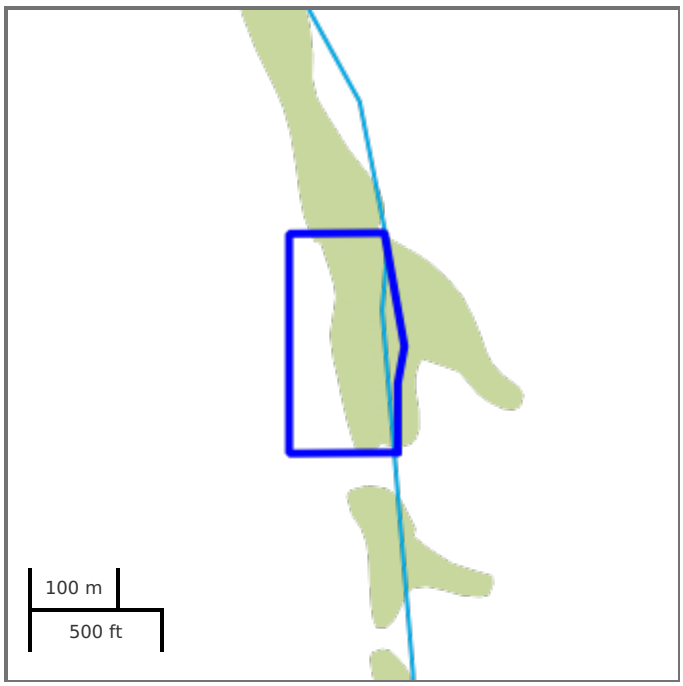
Overlapping Regions:

- Ecoregions: Klamath/North Coast
- Water Board Regions: North Coast
- Counties: Humboldt
- Congressional Districts: 02
- Hydrologic Regions (HUC8): Mad-Redwood

Abundance and Diversity of Existing Aquatic Resources based on California Aquatic Resources Inventory (CARI)

The Landscape Profile Report includes information about the historical and existing abundance and diversity of California state surface waters, including marine waters, estuaries, river and streams, lakes, and wetlands. The historical information is derived from local and regional historical ecology studies and is not available statewide. The information for existing surface waters is derived from the California Aquatic Resource Inventory (CARI), which serves as the default layer for EcoAtlas. CARI consists of the latest public versions of the National Hydrography Dataset (NHD) of the US Geological Survey (USGS) and National Wetlands Inventory (NWI) of the US Fish and Wildlife Service, as well as maps from regional and local agencies. Future versions of CARI will incorporate regional augmentations of these datasets based on the CARI Standard Operating Procedures (CARI SOP). These regional augmentations increase the detail and accuracy of the federal datasets to better support local environmental education, planning, management, and regulation. The CARI SOP is consistent with the mapping standards of the Federal Geographic Data Committee (FGDC), except with regard to wetland classification. While NWI employs the Cowardin classification system, CARI incorporates the statewide classification system of the California Rapid Assessment Method (CRAM), plus regional classification systems adopted by regional environmental policies and programs. CARI is subject to ongoing improvements based on local and regional mapping efforts and will also incorporate the Cowardin system in the future. To learn how to become a local or regional steward of CARI, email CARImapping@sfei.org.

Riparian extent has been estimated for some state waters based on the Riparian Zone Estimator Tool (RipZET). The Landscape Profile Tool of EcoAtlas does not incorporate information about riparian extent unless it has been estimated for all state surface waters within the area of the profile.



CARI Summary Statistics

Total Area of Wetlands: 2 acres / 0.0 miles^2

- Palustrine and Riverine: 2 acres / 0.0 miles^2

Total Length of Drainage Features: 0 miles

- Length of Fluvial Features: 0 miles
- Length of Tidal Features: 0 miles

Acres of Estuarine and Marine Wetlands

Tidal Flat and Marsh Panne	No features
Tidal Marsh	No features
Managed and Muted Tidal Habitats	No features
Pond	No features
Subtidal Water	No features
Beach, Dune, and Rocky Shore	No features
Tidal Channel	No features

Acres of Palustrine and Riverine Wetlands

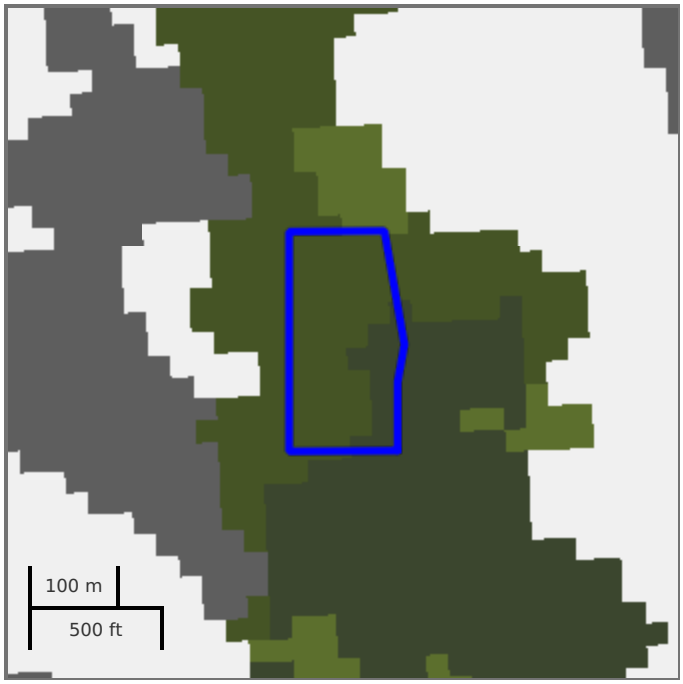
Pond and associated vegetation	3
Lake, Reservoir, and associated vegetation	No features
Playa	No features
Fluvial Channel	No features
Slope, Seep, and Wet Meadow	No features
Vernal Pool	No features

Historical Aquatic Resources

Since the 1990s, the San Francisco Estuary Institute-Aquatic Science Center (SFEI-ASC) has been mapping California's historical aquatic and terrestrial resources. This dataset combines the historical mapping efforts from 12 separate Historical Ecology research projects spanning from 1998 to 2013. Extensive supporting information including bibliographic references, analyses, and research methods, can be found in the individual published reports which are available online. For more information, please visit SFEI-ASC's Historical Ecology Page (http://www.sfei.org/he).

No Historical features found in the profiled area.

CALVEG Habitat Types



CALVEG is a USDA Forest Service product providing a comprehensive spatial dataset of existing vegetation cover over California. The data were created using a combination of automated systematic procedures, remote sensing classification, photo editing, field based observations.

Analyses are based on a crosswalk of the CALVEG classifications to the California Wildlife Habitat Relationships CWHR). CWHR is a state-of-the art information system for California's wildlife developed upon the life history, geographic range, habitat relationships, and management information on species of amphibians, reptiles, birds, and mammals known to occur in the state. CWHR products aid in understanding, conserving, and managing California's wildlife.

For more information on CALVEG: http://www.fs.usda.gov/detail/r5/landmanagement/resourcemanagement/?cid=stelprdb5347192
For more information on CWHR: https://www.wildlife.ca.gov/Data/CWHR

Total area classified: 2 ha / 5 acres / 0 mi^2

Table of CALVEG Habitats in the Profiled Region. *of area classified

Habitat Type	Area (ha)	Area (acres)	Area (%*)
Montane Riparian	2	4	79.6%
Redwood	0.4	1.0	20.4%

Ecological Restoration Based on Habitat Projects

The Landscape Profile includes information about the number and status of on-the-ground restoration and mitigation projects having a Waste Discharge Requirements (WDR) and/or a Section 401 Water Quality Certification from the State Water Resources Control Board or one of its Regional Water Quality Control Boards. Projects for which a WDR or Section 401 Certification is pending are not currently included in the Landscape Profile. The amount of information that is available about a project depends in part on how much information the project sponsors have submitted. It is anticipated that this information will be derived from the Online 401 Application Tool in the future. For more information about Online 401, visit http://app.californiawetlands.net/.

Acres displayed are from reported values and not calculated from project geometries. Lake Tahoe Environmental Improvement Program (EIP) projects are not included in the Summary Statistics.

Number of Habitat Projects in profiled region: **0**

Species of Special Status based on CNDDB Species Information

The Landscape Profile includes publicly available data provided by the California Natural Diversity Database (CNDDB) relating to the status and approximate locations of special status species of plants and animals in California. CNDDB is a collection of certified sightings of special status species that represents the most complete set of information available on the state's declining and/or vulnerable plant and animal species. These species are rare, threatened, or endangered. All special status species from quadrangles that overlap any part of the area demarcated in the Landscape Profile are reported in this report, although the species reported may not necessarily inhabit all or any part of the demarcated area.

Your area of interest ***may*** contain the following state and federally protected species. This data summary is based on coarse scale data (7.5 quad scale). For more information visit the CNDDB website.

BLUE=your area, RED=CNDDB quads

Table of First 4 Federally Listed Species of Special Status. *See Appendix A at end of report for the complete list and quad information.*

Common Name	Scientific Name	Taxa	Listing
marbled murrelet	Brachyramphus marmoratus	Vertebrate animal	Threatened
western snowy plover	Charadrius alexandrinus nivosus	Vertebrate animal	Threatened
California Ridgway's rail	Rallus obsoletus obsoletus	Vertebrate animal	Endangered
green sturgeon	Acipenser medirostris	Vertebrate animal	Threatened

Table of First 4 California Listed Species of Special Status. *See Appendix B at end of report for the complete list and quad information.*

Common Name	Scientific Name	Taxa	Listing
marbled murrelet	Brachyramphus marmoratus	Vertebrate animal	Endangered
bank swallow	Riparia riparia	Vertebrate animal	Threatened
California Ridgway's rail	Rallus obsoletus obsoletus	Vertebrate animal	Endangered
longfin smelt	Spirinchus thaleichthys	Vertebrate animal	Threatened

Human Population Based on 2010 Census

The Landscape Profile includes information about the population of people residing in the Profile area based on the latest census by the U.S. Census Bureau. The census aggregates data for census blocks that do not exactly match the boundaries of a Profile area. The Landscape Profile therefore adjusts the census data based on the proportions of census blocks within the Profile area. Information about languages spoken within the Profile area is included to support environmental outreach and education.

Population:	10 persons
Population Density:	1,384 persons per sq mile
Housing Units:	7 units
Housing Units Density:	951 units per sq mile

Language Spoken at Home based on the 2008-2012 American Community Survey	**% Population out of 4 Total***
English:	97 %
Spanish or Spanish Creole:	2 %

**Note languages under 1% not reported.*

Developed Landcover based on NLCD 2011 Category

The Landscape Profile includes information about selected types of natural and unnatural land covers excluding surface waters. The information is derived from the National Land Cover Database 2011 (NLCD 2011). NLCD 2011 is the most recent product created by the Multi-Resolution Land Characteristics (MRLC) Consortium. NLCD 2011 uses a 16-class land cover classification scheme that has been applied consistently across the United States at a spatial resolution of 30 meters. At this time, the Profile summarizes information for six land cover classes. For more information about NLCD 2011 and MRLC, go to: http://www.mrlc.gov/nlcd2011.php

Approximately 4 acres / 0 miles^2 out of a total of 4.8 acres

Land Cover Class	Percent of Profile Data
Medium Intensity Development	43%
Low Intensity Development	37%
Developed Open Space	20%

Appendices

This report was generated by the Landscape Profile Tool in EcoAtlas at www.ecoatlas.org. The report and the data found here within should be used for planning purposes only and is not intended to be survey or engineering quality. For more information about EcoAtlas data quality visit: http://www.ecoatlas.org/data. This report was generated on Wednesday December 13, 2017, 02:23 PM.

Appendix A: Federally Listed Species of Special Status

Common Name	Scientific Name	Taxa	Listing	Quads
marbled murrelet	Brachyramphus marmoratus	Vertebrate animal	Threatened	Eureka
western snowy plover	Charadrius alexandrinus nivosus	Vertebrate animal	Threatened	Eureka
California Ridgway's rail	Rallus obsoletus obsoletus	Vertebrate animal	Endangered	Eureka
green sturgeon	Acipenser medirostris	Vertebrate animal	Threatened	Eureka
tidewater goby	Eucyclogobius newberryi	Vertebrate animal	Endangered	Eureka
longfin smelt	Spirinchus thaleichthys	Vertebrate animal	Candidate	Eureka
eulachon	Thaleichthys pacificus	Vertebrate animal	Threatened	Eureka
coho salmon - southern Oregon / northern California ESU	Oncorhynchus kisutch pop. 2	Vertebrate animal	Threatened	Eureka
steelhead - northern California DPS	Oncorhynchus mykiss irideus pop. 16	Vertebrate animal	Threatened	Eureka
chinook salmon - California coastal ESU	Oncorhynchus tshawytscha pop. 17	Vertebrate animal	Threatened	Eureka
beach layia	Layia carnosa	Vascular plant	Endangered	Eureka
Menzies' wallflower	Erysimum menziesii	Vascular plant	Endangered	Eureka
western lily	Lilium occidentale	Vascular plant	Endangered	Eureka

Appendix B: California Listed Species of Special Status

Common Name	Scientific Name	Taxa	Listing	Quads
marbled murrelet	Brachyramphus marmoratus	Vertebrate animal	Endangered	Eureka

Appendix B: California Listed Species of Special Status (cont'd)

Common Name	Scientific Name	Taxa	Listing	Quads
bank swallow	Riparia riparia	Vertebrate animal	Threatened	Eureka
California Ridgway's rail	Rallus obsoletus obsoletus	Vertebrate animal	Endangered	Eureka
longfin smelt	Spirinchus thaleichthys	Vertebrate animal	Threatened	Eureka
coho salmon - southern Oregon / northern California ESU	Oncorhynchus kisutch pop. 2	Vertebrate animal	Threatened	Eureka
beach layia	Layia carnosa	Vascular plant	Endangered	Eureka
Menzies' wallflower	Erysimum menziesii	Vascular plant	Endangered	Eureka
western lily	Lilium occidentale	Vascular plant	Endangered	Eureka

Attachment B—National Wetlands Inventory Map

Attachment B
Kevin McKenny

Yellow line denotes approximate parcel boundary. NWI map does not accurately show present day location of Third Slough.