

**Appendix E**  
**Jurisdictional Delineation Report**



April 8, 2014

Leslie Dumas, P.E.  
Senior Water Resource Engineer, RMC Water and Environment  
2175 North California Blvd., Suite 315  
Walnut Creek, CA 94596  
(925) 627-4100

**Subject: Jurisdictional Delineation Report for the Malibu Wastewater Treatment Facility Site in the City of Malibu, Los Angeles, California**

Dear Ms. Dumas:

This letter report provides the methods and results of a routine delineation conducted for the Malibu Wastewater Treatment Facility Project. The City of Malibu is proposing construction of a wastewater treatment facility and associated collection system in the Civic Center area. The Project would also include a distribution system to provide treated water to recycled water uses within the Civic Center area, as well as deep well injection facilities to dispose of excess treated effluent. The purpose of this delineation is to assess the limits of jurisdiction pursuant to the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and the California Coastal Commission (CCC) within and adjacent to the wastewater facility portion of the proposed Project.

## **Project Location**

The proposed wastewater treatment facility site is located on 4.8 acres of land northwest of the intersection of Pacific Coast Highway (PCH) and Civic Center Way, in the City of Malibu, Los Angeles County, California (Figure 1). More specifically, the proposed wastewater treatment facility site would be located on the south side of Civic Center Way and extend approximately 0.20 mile, from PCH to just east of Winter Canyon Road (Figure 2). The treatment facility site is depicted on the U.S. Geological Survey (USGS) Malibu Beach, California 7.5-minute topographical quadrangle map (dated 1995) within an un-sectioned portion of Township 1 South, Range 17 West (Figure 3). The center coordinates for the site in decimal degree format (NAD 83) are 34.0360°N and -118.6984°W.

## **Methodology**

Prior to beginning the field delineation, a 200-scale color aerial photograph, and the previously cited

USGS topographic map were analyzed to determine the locations of potential areas of USACE, RWQCB, CDFW, and CCC jurisdiction. ICF Regulatory Specialist RC Brody conducted the jurisdictional delineation on May 17, 2013. Potentially jurisdictional features within the area surrounding the treatment facility site were evaluated for the presence of a definable channel and/or wetland vegetation, soils, and hydrology. The treatment facility site was analyzed for potential waters and wetlands as defined in Section 13577(b) of the California Code of Regulation, as required by Policy 3.86 the City of Malibu Local Coastal Plan (LCP). Three parameters are typically required in order for an area to be determined a wetland under USACE and RWQCB jurisdiction: a predominance of hydrophytic vegetation, hydric soils and hydrology. However, for this Project, areas exhibiting at least one of the three parameters will be defined as wetland. This one parameter methodology mirrors that used by the CCC. Plant indicator status was determined using species identified on the 2013 National Wetland Plant List (v 3.1) and included species with an indicator status of obligate (OBL), facultative wetland (FACW), and facultative (FAC). Species not considered hydrophytic included species with an indicator status of facultative upland (FACU) or upland (UPL). Lateral limits of waters were identified using field indicators of an Ordinary High Water Mark (OHWM) (USACE 2008b). Soil pits were not dug because in each feature one parameter (vegetation or hydrology) had already been identified.

Regional climate data was accessed using the Western Regional Climate Center (WRCC) on-line database. Historical aerial photographs of the project area (1990, 2002, 2004, 2005, 2006, 2007, 2008, 2009, 2011) (Google Earth 2014) were also reviewed. While in the field, jurisdictional features were recorded onto a 200-scale color aerial photograph using visible landmarks and were mapped using a Garmin Rino (GPS) unit. Vascular plants were identified using The Jepson Manual: Vascular Plants of California (Baldwin 2012) and the National Wetland Plant List V 3.1 (USACE/EPA 2013).

## Results

The area surrounding the wastewater treatment facility site contains three drainage features, Winter Canyon Creek, Drainage 1, and Drainage 2. Winter Canyon Creek flows generally in a north to south direction. Drainage 1 is a tributary to Winter Canyon Creek and flows in a west to east direction until it meets Winter Canyon Creek in the southeastern portion of the site. Drainage 2 is partially paved and conveys flows from Civic Center Way to Winter Canyon Creek. All three drainages are discussed in detail below:

Average annual rainfall for the Project area (Santa Monica, California) totals 12.1 inches per year (WRCC 2013). Review of the USGS topographic map indicate a blue-lined stream through the site, however, no drainage was found to be associated with the location of the blue-line and the topography appears to have been altered some time back. Historic aerials appear consistent with the conditions observed on site.

### Winter Canyon Creek

Winter Canyon Creek has an intermittent flow regime and flows for approximately 250 feet within the project site (Figure 4). Winter Canyon Creek enters the project area via two pipes approximately 250 feet north of PCH. One pipe (18 inches) conveys flows from Civic Center Way into the drainage, while the second pipe (60 inches) conveys flows from under Civic Center Way. The creek exits the project site where it enters into a culvert and flows under PCH exiting on the south side of PCH where flows

continue southerly at the surface. The flows are again collected into a pipe north of Malibu Road, and are conveyed into the storm drain system.

The majority of Winter Canyon Creek has an earthen bottom; however, a small segment (approximately 30 feet) downstream of the eastern inlet pipe, and approximately 15 feet on the upstream side of the outlet pipe is concrete. Several concrete/rock walls are associated to the upland area and retain small pools of water. The feature appears to receive regular flows, likely as a result of nuisance flows from the nearby developments.

Winter Canyon Creek is vegetated throughout, with an overstory consisting of arroyo willow (*Salix lasiolepis*) (FACW) and sporadic California black walnuts (*Juglans californica*) (FAC). The understory is generally sparse, but includes arroyo willow saplings, non-native grasses including fountain grass (*Pennisetum setaceum*) (UPL) and pampas grass (*Cortaderia jubata*) (FACU). One small patch containing fewer than ten cattail (*Typha* sp.) (OBL) plants was observed in this drainage.

Within the wastewater treatment facility site, Winter Canyon Creek flows for approximately 207 linear feet. Winter Canyon Creek consists of 0.29 acre of wetland under the jurisdiction of USACE<sup>1</sup>, RWQCB, and CCC. CDFW jurisdiction associated with Winter Canyon Creek consists of 207 linear feet of streambed exhibiting a bed and bank, and comprises 0.29 acre of vegetated riparian habitat. Table 1 presents the total jurisdiction for each agency. Within the treatment facility site, Winter Canyon Creek exhibits a channel ranging from 2 to 9 feet in width (as measured by distance from OHWM on each bank), with visible indicators present such as the presence of bed and bank, break in bank slope, destruction of terrestrial vegetation, and wracking.

By far the dominant plant species along Winter Canyon Creek are arroyo willow (FACW) and California black walnut (FAC). Using the one parameter assessment method to define wetlands, the abundance of hydrophytic vegetation within Winter Canyon Creek would meet the definition of a wetland. The vegetation associated with Winter Canyon Creek rapidly changes from hydrophytic to upland vegetation outside of the bed and banks of the creek and the wetland vegetation is immediately surrounded by brome grasses (*Bromus* sp.) (UPL), carnation spurge (*Euphorbia terracina*) (UPL), and sporadic Mexican elderberry (*Sambucus nigra*) (UPL), California sagebrush (*Artemisia californica*) (UPL), California black walnut (FAC) and lemonade berry (*Rhus integrifolia*) (UPL). The presence of hydric soils was assumed in areas containing either hydrophytic vegetation or hydrology. As such, soil pits were not dug, so no data on hydric soil indicators was collected.

### **Drainage 1**

Drainage 1 has an ephemeral flow regime and enters the area in the immediate vicinity of the wastewater treatment facility site via an 18-inch pipe near PCH near the southwest corner of the site. The drainage then flows easterly until it flows into Winter Canyon Creek within the wastewater treatment facility site.

All of Drainage 1 has an earthen bottom. The feature conveys flows collected on PCH during rain events.

---

<sup>1</sup> As described in the methodology section, any feature exhibiting at least one wetland parameter (hydrology, hydrophytic vegetation and hydric soils) will be determined to be USACE, RWQCB, and CCC wetlands.

Drainage 1 is un-vegetated in the upstream portion of the channel; however, as the slope flattens and flows slow down, there is vegetation within the drainage. The vegetation within the drainage and on the banks is predominantly upland vegetation. Eucalyptus (*Eucalyptus* sp.) (UPL) trees and Mexican elderberry (FACU) are found along the length of the drainage along with nonnative grasses, giant wild rye (*Leymus condensatus*) (FACU), tree tobacco (*Nicotiana glauca*) (UPL), castor bean (*Ricinus communis*) (UPL), carnation spurge (UPL), and sporadic coyote brush (*Baccharis pilularis*) (UPL), California sagebrush (*Artemisia californica*) (UPL).

Within the treatment facility site, Drainage 1 flows for approximately 453 linear feet, and exhibits a channel ranging from 3 feet to 20 feet in width, with visible indicators such as a presence of bed and bank, break in bank slope, destruction of terrestrial vegetation, and wracking. Drainage 1 consists of 0.07 acre of wetland under the jurisdiction of USACE, RWQCB, and CCC. CDFW jurisdiction associated with Drainage 1 consists of 453 linear feet of streambed exhibiting bed and bank. CDFW jurisdiction associated with Drainage 1 comprises 0.10 acre of streambed. Table 1 presents the total jurisdiction for each agency.

Drainage 1 is dominated by upland vegetation; however, the drainage is bordered by banks with an OHWM for 453 feet and therefore was determined to be a wetland using the one-parameter test. There is a small patch of mugwort (*Artemisia douglasiana*) (FAC) in the lower portion of the site, however the mugwort was growing with giant wild rye (FACU), coyote brush (UPL), and brome grass (UPL), so the area would not be qualified as having a preponderance of hydrophytic vegetation. Drainage 1 does exhibit hydrologic indicators in the form of drainage patterns and drift deposits (riverine). The presence of hydric soils was assumed in areas containing either hydrophytic vegetation or hydrology. As such, soil pits were not dug, so no data on hydric soil indicators was collected.

## **Drainage 2**

Drainage 2 has an ephemeral flow regime and enters the wastewater treatment facility site via a paved swale designed to collect flows from Civic Center Way. The feature flows westerly into Winter Canyon Creek within the area surrounding the treatment facility site.

Drainage 2 is entirely paved on the upstream portion and is conveyed through a corrugated metal pipe in the downstream portion. The feature conveys flows collected from Civic Center Way during rain events.

Drainage 2 is largely un-vegetated. Where vegetation does occur within the drainage and on the banks it is predominantly upland vegetation including: carnation spurge, brome grass (UPL), cliff aster (*Malacothrix saxatilis*) (UPL), ice plant (*Carpobrotus chilensis*) (FACU), and canyon sunflower (*Venegasia carpesioides*) (UPL).

Within the site, Drainage 2 flows for approximately 125 linear feet, and exhibits a channel between OHWMs ranging from 1 foot to 3 feet in width, with visible indicators such as a presence of bed and bank, break in bank slope, destruction of terrestrial vegetation, and wracking. Drainage 2 consists of 0.01 acre of wetland under the jurisdiction of USACE, RWQCB, and CCC. CDFW jurisdiction associated with Drainage 2 consists of 125 linear feet of streambed exhibiting bed and bank, and comprises 0.01 acre of streambed. Table 1 presents the total jurisdiction for each agency.

No areas supporting a preponderance of hydrophytic vegetation were observed within Drainage 2. Drainage 2 does, however, exhibit hydrologic indicators in the form of drainage patterns and drift deposits (riverine). The presence of hydric soils was assumed in areas containing either hydrophytic vegetation or hydrology. As such, soil pits were not dug, so no data on hydric soil indicators was collected.

**Table 1 - USACE/RWQCB, CCC, and CDFW Jurisdiction**

Feature	USACE/RWQCB/CCC	CDFW	
	Wetland Waters	CDFW Streambed	CDFW Riparian
Winter Canyon Creek	0.29 acre 207 linear feet	--	0.29 acre 207 linear feet
Drainage 1	0.07 acre 453 linear feet	0.10 acre 453 linear feet	--
Drainage 2	0.01 acre 125 linear feet	0.01 acre 125 linear feet	--

## Conclusion

Based on observations made during the May 17, 2013 field investigation, and through the analysis of aerial photographs, topographic maps, and local climate information, there is evidence that Winter Canyon Creek, Drainage 1, and Drainage 2 are each subject to federal and state jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act, the Porter-Cologne Water Quality Control Act (California Water Code 13260[a]), and Sections 1600-1616 of the California Fish and Game Code.

A total of 0.37 acre/785 linear feet of wetland USACE, RWQCB, and CCC jurisdiction occur within the wastewater treatment facility site. A total of 0.11 acre/578 linear feet of CDFW streambed and 0.29 acre/207 linear feet of riparian vegetation subject to CDFW jurisdiction, occur within the treatment facility site.

If you have any questions about this letter report, please contact me at (909) 528-6807.

Sincerely,

James Hickman  
 Biologist

Leslie Dumas  
April 8, 2014  
Page 6 of 7

Figures:

- Figure 1 – Project Location Map
- Figure 2 – Project Vicinity Map
- Figure 3 – Topographic Map
- Figure 4a-USACE, RWQCB, and CCC Jurisdiction Map
- Figure 4b- CDFW Jurisdiction Map

Attachments:

- 1) Photo Log

## References

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors (Baldwin). 2012. *The Jepson manual: Vascular Plants of California*, second edition. University of California Press, Berkeley.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station.
- U.S. Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Vicksburg, MS: U.S. Army Engineer Research and Development Center. Report dated September 2008.
- Google Earth. 2014. Aerial photographs dated: 1990, 2002, 2004, 2005, 2006, 2007, 2008, 2009, 2011. Accessed via Google Earth Pro in March 2014.
- . 2008b. *A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States: A Determination Manual*. Available: <http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf>. August.
- . 2011. *Draft Guidance on Identifying Waters Protected by the Clean Water Act*.
- . 2012. *Draft-Final National Wetland Plant List*. Cold Regions Research and Engineering Laboratory (CRREL).
- U.S. Geological Survey. (1995). 7.5-Minute *Malibu Beach*, California, quadrangle.
- Western Regional Climate Center (WRCC). 2013. Period of Record Monthly Climate Summary Santa Monica, California. Available: < <http://www.wrcc.dri.edu/summary/nkx.ca.html> > Accessed: March 2013.



**Figure 1**  
**Project Location Map**  
 Jurisdictional Delineation Report for the  
 Malibu Wastewater Treatment Facility Project

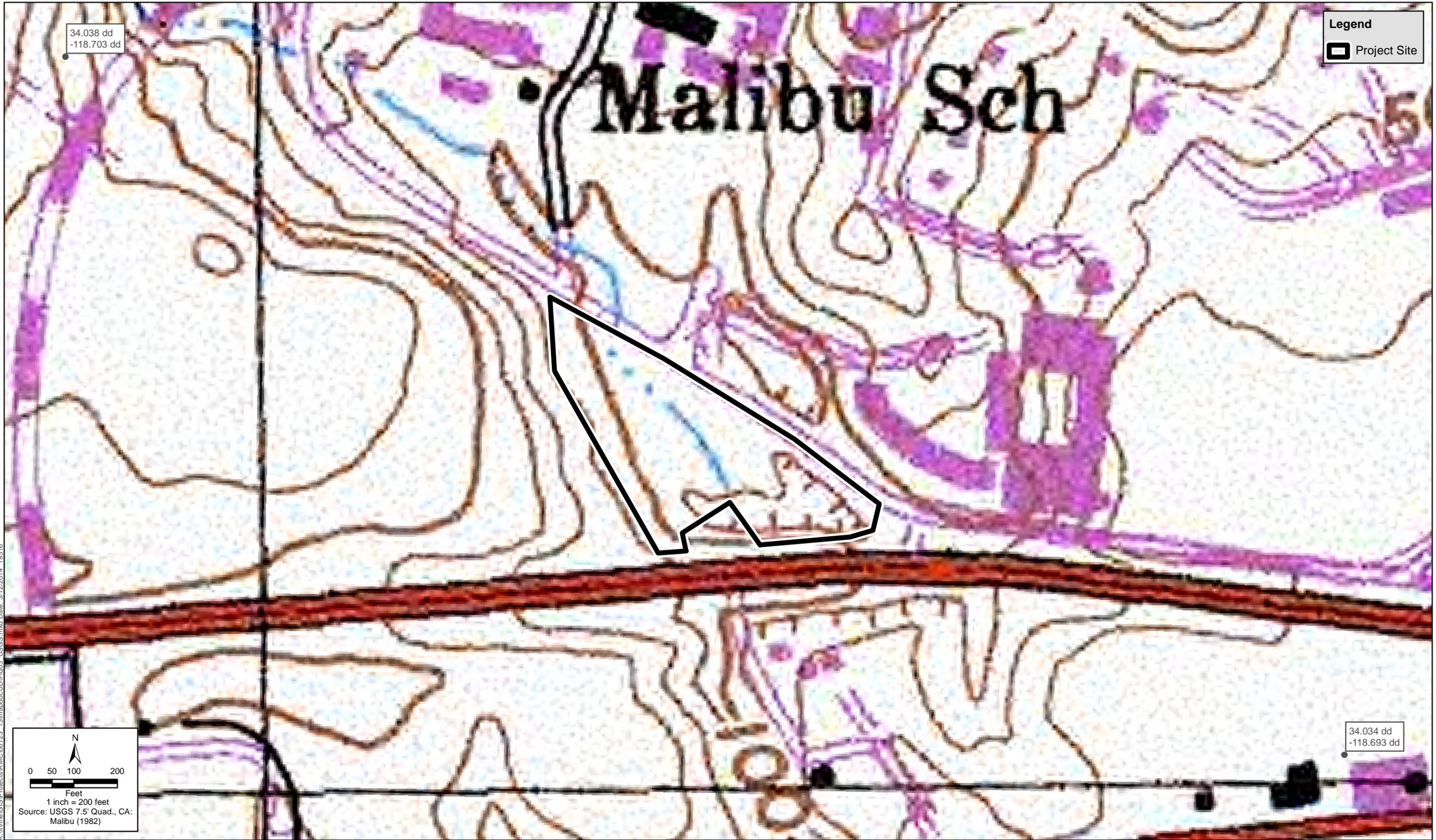




K:\In\GIS\Projects\RMC\00123\_13\mapdoc\JDFig02\_project\_vicinity.mxd Date: 3/12/2014 1:33:16



**Figure 2**  
**Project Vicinity**  
**Jurisdictional Delineation Report for the**  
**Malibu Wastewater Treatment Facility Project**



K:\In\GIS\Projects\RMC\00123\_13\mapdoc\JD\Fig03\_USGS.mxd Date: 3/12/2014 19:316



**Figure 3**  
**USGS Topographic Map**  
**Jurisdictional Delineation Report for the**  
**Malibu Wastewater Treatment Facility Project**



K:\In\GIS\Projects\RMC\00123\_13\mapdoc\JD\Fig04a\_USACE.mxd Date: 4/8/2014 1:33:16



**Figure 4a**  
**Jurisdictional Features - USACE/RWQCB/California Coastal Commission**  
**Jurisdictional Delineation Report for the**  
**Malibu Wastewater Treatment Facility Project**



K:\In\GIS\Projects\RM\00123\_13\mapdoc\JDFig04b\_CDFW.mxd Date: 4/8/2014 1:33:16



**Figure 4b**  
**Jurisdictional Features - CDFW**  
**Jurisdictional Delineation Report for the**  
**Malibu Wastewater Treatment Facility Project**

## **Attachment 1: Site Photographs**

**Photographs**



**Photograph 1:** Northwesterly view of Winter Canyon Creek from the southeastern corner



**Photograph 2:** Southerly view from within Winter Canyon Creek

**Photographs**



**Photograph 3:** Easterly view of Drainage 1 near the upstream portion of the feature



**Photograph 4:** Westerly view of Drainage 1 from the downstream extent.

**Photographs**



**Photograph 5:** Easterly view of Drainage 2 near the upstream extent



**Photograph 6:** Easterly view of Drainage 2 from near the downstream extent.