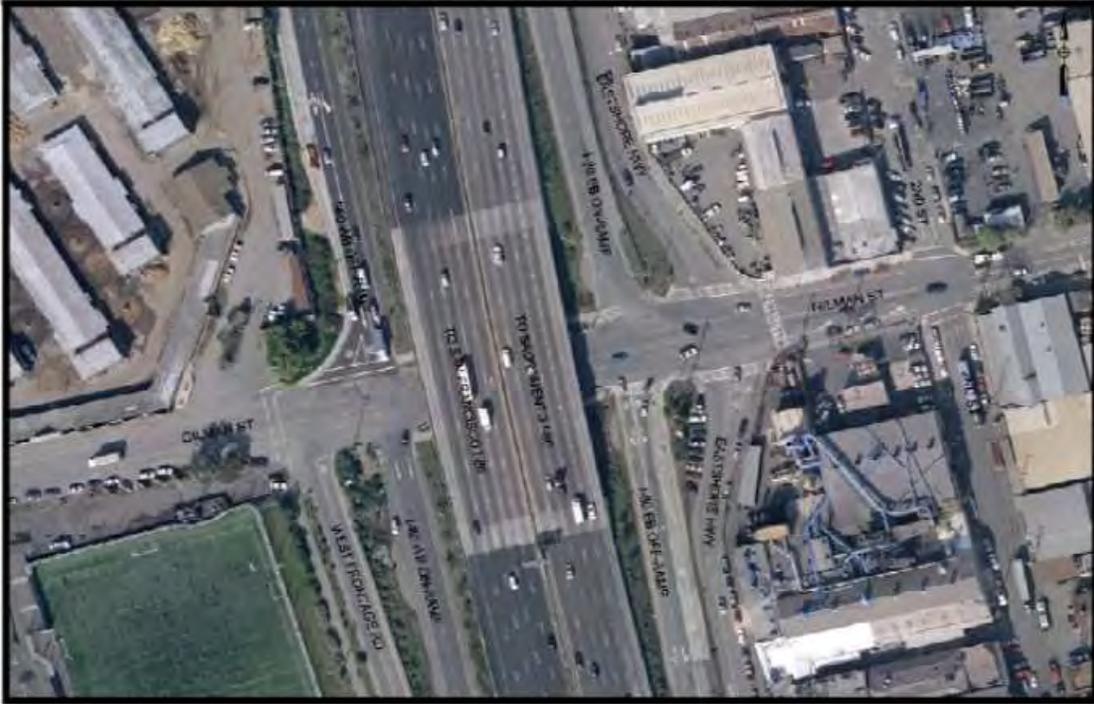


I-80/GILMAN STREET INTERCHANGE IMPROVEMENT PROJECT



DELINEATION OF WATERS OF THE UNITED STATES - ADDENDUM

CALTRANS DISTRICT 04

04-ALA-80-PM 6.38/6.95

EA 04-0A7700/ Project ID 04000020155

November 2018 Addendum to Revised August 2017 Document



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DELINEATION OF WATERS OF THE UNITED STATES - ADDENDUM

I-80/GILMAN STREET INTERCHANGE IMPROVEMENT PROJECT

CALTRANS DISTRICT 04

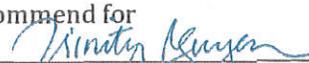
04-ALA-80-PM 6.38/6.95

EA 04-0A7700/ Project ID 04000020155

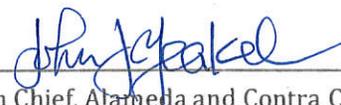
November 2018 Addendum to Revised August 2017 Document

Prepared By:  Date: 11/1/18

Paula Gill, Senior Regulatory Specialist
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Johnson Marigot Consulting, LLC
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Reviewed/Recommend for
Approval By:  Date: 11/5/2018

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111 Grand Avenue
Oakland, CA 94612

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1. Introduction

The California Department of Transportation (Caltrans) and the Alameda County Transportation Commission (Alameda CTC) are proposing to construct the Interstate (I-) 80/Gilman Street Interchange Improvement Project (Project) to improve traffic, pedestrian, and bicycle operations at the I-80/Gilman Street interchange in Berkeley and Albany, Alameda County, California. A Wetland Delineation report (delineation) was completed and revised in August of 2017, and the U.S. Army Corps of Engineers (Corps) verified the wetland delineation on March 16, 2018.

Since verification of the delineation, changes to the proposed project were made to accommodate stakeholder requests and to comply with requirements from Caltrans' Municipal Separate Storm Sewer System (MS4) permit, and the National Pollutant Discharge Elimination System (NPDES) No. CAS000003 (State Water Resources Control Board [SWRCB] Order No. 2012-0011-DWQ, amended by Order 2015-0036EXCEX - conformed and effective April 17, 2015). The changes, described below, required an extension of the survey area boundary of the previously completed delineation. This addendum to the wetland delineation describes the extent and location of waters of the United States potentially subject to the Corps' jurisdiction pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. Section 1344) and Section 10 of the Rivers and Harbors Act of 1899 (RHA) (33 U.S.C. Section 403) within the expanded study area. This investigation of potentially jurisdictional waters of the U.S. follows the methods described in the *Corps' Wetlands Delineation Manual* (USACE 1987), supplemented with guidance as directed by the *Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the boundaries of aquatic features and are subject to modification following the Corps' verification process. Determination of Corps' jurisdiction over the depicted wetlands and waters of the U.S. is also subject to Corps' verification process.

1.1 REVISED PROJECT DESCRIPTION

Revised work, within waters of the U.S, would include installation of a separation device underground along Gilman Street to separate trash, mercury, and polychlorinated biphenyls (PCBs). A tidal flap gate would be installed at the existing headwall which supports the outfall of the 60" reinforced concrete pipe that runs parallel to the southern side of Gilman Street. Replacement of the existing headwall and associated riprap may include in-water work. Dewatering or a coffer dam may also be required.

1.2 STUDY AREA

The addendum study area, adds areas not previously verified by Corps (Appendix A) but within the Biological Study Area (BSA) defined within the Natural Environment Study (NES). In total, the BSA for the revised project is defined as the area (land and water) that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities. For this Project, the BSA was established to encompass the limits of construction activity (i.e., Project footprint) and surrounding areas potentially inhabited by regional special-status species that could be affected by the Project, where appropriate. In urban areas, the BSA is limited to the Project footprint as there are few biological resources, and any biological resources that are present would be habituated to continuous disturbance. In vegetated areas, the BSA includes a buffer around the

Project footprint so as to include adjacent biological resources that may be indirectly impacted by construction activities. This buffer is generally limited to 50-ft beyond the Project footprint. However, the entire spit of land at the end of Gilman Street was included in the BSA, and the BSA near the staging areas south of the Tom Bates Sports Complex extends to existing fence lines to the north and south, and to the shore of San Francisco Bay to the west; these were included in the BSA with a non-standard buffer. The Study Area and BSA are also consistent with the scope of analysis to be used by Caltrans (acting federal lead) for National Environmental Policy Act and for Federal Endangered Species Act compliance. At the Corps' request, a portion of the study area boundary within the Cordornices Creek riparian canopy was removed as work is not proposed in this area.

Generally, the study area is located at the western terminus of Gilman Street, at the westernmost boundary of the City of Berkeley, Alameda County, California, within the Richmond U.S. Geological Survey (USGS) 7.5' topographic quadrangle (quad) (T1S R4W) (Figure 1). The coordinates for the approximate center of the study area limits are 37.877632° north and -122.309809° west. The study area can be accessed by driving west on Gilman Street from the Interstate 80 Gilman Street exit in the City of Berkeley; the study area occurs immediately west of the parking area along the shoreline.

2. Methods

The boundaries of potential waters of the U.S. were mapped using a Juniper Geode Global Navigation Satellite System (GNSS) with sub-meter accuracy, using standard field methodologies (as established in the *Corps' Wetlands Delineation Manual* [USACE 1987] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* [USACE 2008]). A color aerial photograph (1"=100' scale, Google Earth 2018) was used to assist with mapping and ground-truthing. Standard field methodologies (i.e., paired data set analyses) were used and all wetland data were recorded on Arid West Routine Wetland Determination Forms (Appendix B). The *Jepson Manual, Vascular Plants of California, Jepson Flora Project* (Jepson Flora Project 2018) was used for plant nomenclature and identification. Plant wetland indicator status was provided by The National Wetland Plant List: 2016 wetland ratings (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016). *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of Alameda County, California* (U.S. Department of Agriculture, Soil Conservation Service) were used to aid in identifying hydric soils in the field. The National Resource Conservation Service (NRCS) online web Soil Survey was used to obtain soil information.

A field survey was conducted on April 11, 2018, by Johnson Marigot Consulting, LLC personnel (Ms. Paula Gill, Ms. Sadie McGarvey, and Ms. Lauren Bingham) and again on May 10, 2018 by Ms. Sadie McGarvey. Staff walked the approximately 10.25-acre site to determine the location and extent of potential waters of the U.S. within the study area. Mapping of the High Tide Line (HTL) was completed at low tide (approximately 4pm & noon respectively). Four (4) representative data point locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status.

2.1 WATERS OF THE UNITED STATES

Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. 328.3(b), 51 F.R. 41250, November 13, 1986]. Wetlands can be perennial or seasonal, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses [33 C.F.R. 328.3(a), 51 F.R. 41250, November 13, 1986]. The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 C.F.R. 328.4(c)(1) as the "ordinary high water mark" (OHWM). The OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. 328.3(e), 51 F.R. 41250, November 13, 1986]. The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps' jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

The limit of Corps' jurisdiction in tidal watercourses is defined as the "high tide line" (HTL). The HTL is defined as "the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm." [33 CFR 328.3].

All proposed work and/or structures extending bayward or seaward of the line on shore reached by: (1) mean high water (MHW) in tidal waters, or (2) ordinary high water in non-tidal waters designated as navigable waters of the United States, must be authorized by the Corps pursuant to Section 10 of the RHA of 1899 (33 U.S.C. Section 403). Additionally, all work and structures proposed in unfilled portions of the interior of diked areas below former MHW must also be authorized under Section 10 of the same statute. MHW is defined as is the average of all the high water heights observed over a period of several years.

3. Environmental Setting

3.1 STUDY AREA DESCRIPTION

The study area can be broken into descriptive components including beach (1.70 acres), riprap (0.77 acre), upland (1.16 acres) and urban (6.50 acres) (Figure 2). Photographs of areas in which USACE jurisdictional aquatic resources were documented are included as Appendix C.

3.1.1 BEACH

From the toe of the riprap bayward, there is a wide sandy beach. At low tide, when the extent of the beach is exposed, there is approximately 150 feet between the toe of the riprap slope and the bay water. Large cobbles, covered in algae, have been deposited along the beach along with typical shells. Litter associated with the adjacent land use is also apparent, including tires, shopping carts, and other debris.

3.1.2 RIPRAP (SLOPE PROTECTION)

Erosion control in the form of riprap has been installed along the approximately 1.5:1 slope. The riprap is made of natural boulders and broken concrete. The HTL is visible along the riprap as algae has accumulated along the riprap that is generally inundated at daily high tide events.

3.1.3 UPLAND

Dominant species observed within the upland include non-native weedy species such as Italian thistle (*Carduus pycnocephalus*) (NL), riggut brome (*Bromus diandrus*) (NL), soft chess (*Bromus hordeaceus*) (FACU), and geranium (*Geranium dissectum* and *G. molle*) (NL). Other observed species included jointed charlock (*Raphanus raphanistrum*) (NL), Bermuda buttercup (*Oxalis pes-caprae*) (NL), New Zealand spinach (*Tetragonia tetragonioides*) (NL), foxtail barley (*Hordeum murinum*) (FACU), wildoats (*Avena fatua*) (NL), fennel (*Foeniculum vulgare*) (NL), narrow leaved plantain (*Plantago lanceolata*) (FAC), milk thistle (*Silybum marianum*) (NL), Italian ryegrass (*Festuca perennis*) (FAC), spring vetch (*Vicia sativa*) (FACU), wild onion (*Allium triquetrum*) (NL), cutleaf geranium (*Geranium dissectum*) (NL), cheeseweed (*Malva parviflora*) (NL), and panic veldtgrass (*Ehrharta erecta*) (NL). Occasional small burrows occupied by ground squirrels were observed. Informal trails formed from recreational use were observed along the outcropping south of the project boundary.

3.1.4 URBAN

Components of the study area identified as “urban” include the built environment such as sidewalks, roadways, residential and industrial uses. Observed plant species in these areas included common ornamentals and ruderal weeds well adapted to disturbed areas. Observed species included slender wild oats (*Avena barbata*) (NL), black mustard (*Brassica nigra*) (NL), riggut brome (*Bromus diandrus*) (NL), slider willow herb (*Epilobium cilatum*) (FACW), red-stemmed filaree (*Erodium cicutarium*) (NL), Italian rye grass (*Festuca perennis*) (FAC), bedstraw (*Gallium sp*) (NL), English ivy (*Hedera helix*) (FACU), foxtail barley (*Hordeum murinum*) (FACU),

prickly lettuce (FACU), scarlet pimpernel (*Lysimachia arvensis*) (FAC), wild radish (*Raphanus sativus*) (FAC), and spring vetch (*Vicia sativa*) (FACU).

4. Results

4.1 SECTION 404 CLEAN WATER ACT JURISDICTION

The limit of Corps' jurisdiction pursuant to Section 404 of CWA includes, wetlands, Other Waters of the U.S. and tidal watercourses. There is no potential for prolonged ponding of waters, and therefore no wetlands, within the expanded study area. This determination is supported by findings summarized in the attached Arid West Wetland Delineation forms (Appendix A). Similarly, there are no potential Other Waters of the U.S, beyond the areas along the shoreline below the MHW and HTL, within the study area boundary.

Characters observed indicative of the HTL included 1) line of algae along the shoreline protection, 2) fine shell and debris along the beach, and 3) deposition of floating debris near the algae colonization on shoreline protection. HTL is depicted by the red arrow below (photo taken from immediately north of the existing headwall, looking north).



4.2 SECTION 10 RIVERS AND HARBORS ACT JURISDICTION

The limit of Corps' jurisdiction pursuant to Section 10 of the RHA jurisdiction is defined as the area waterward of the MHW. For this location, MHW is defined as 5.79 feet (NAVD 88). The MHW was

calculated by interpolating between the National Oceanic and Atmospheric Administration (NOAA) Richmond and Alameda tidal station as summarized in the Table 1.

Table 1. Mean High Water Data Summary

	DatumSources					Gilman Project
	Alameda County	NOAA				
	Berkeley	Alameda (2011)	Richmond (2011)	Gilman Location (Interpolate)	Berkeley (2003)	
MHHW	6.2	6.60	6.06	6.41	6.10	6.41
MHW	N/A	5.98	5.45	5.79	5.49	5.79
MLW	N/A	1.14	1.12	1.13	1.14	1.13
MLLW	N/A	0	0	0	0	0
NAVD88	N/A	0.23	0	0.08	-0.13	0.08

Extent and location of Corps’ jurisdiction, within the area of proposed impact, pursuant to Section 404 of the CWA and Section 10 of the RHA, is depicted in Figure 3. Further, extent and location of Corps’ jurisdiction, within the entire study area, pursuant to Section 404 of the CWA and Section 10 of the RHA, is depicted in Figure 4.

5. Summary of Potential Jurisdictional Areas

A total of approximately 1.79 acres of Section 404 CWA regulated waters of the U.S. and approximately 1.64 acres of Section 10 of the RHA jurisdiction occurs within the expanded study area boundary. There are no regulated wetlands within the expanded study area boundary.

6. Reference

Environmental Laboratory. 1987. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U. S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.

Headquarters, U.S. Army Corps of Engineers (HQUSACE). 1992. Clarification and Interpretation of the 1987 Manual. Memorandum from Major General Arthur E. Williams. Dated: 6 March 1992.

Jepson Flora Project (eds.) 2018. *Jepson eFlora*, <http://ucjeps.berkeley.edu/eflora/> [accessed on April 11, 2018].

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. *Phytoneuron* 2016-30: 1-17. Published 28 April 2016.

United States Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

LIST OF FIGURES

Figure 1. Study Area Map

Figure 2. Study Area Components

Figure 3. Unverified Delineation Map of Impact Area

Figure 4. Unverified Delineation Map of Waters of the U.S

Figure 1

Study Area Map

Figure 1. Study Area Map

Prepared by:
Sadie McGarvey
Johnson Marigot Consulting, LLC
November 1, 2018

San Francisco Bay

37.882673°N, 122.305683°W

37.875881°N, 122.308918°W

 JD Addendum Study Area
 Data Points
 Control Points

N
0 250 500
Feet

1 inch = 300 feet
*Study Area spans two 7.5-minute USGS
Quadrangles: Richmond (north) and
Oakland West (south)

Figure 2

Study Area Components

Figure 2. Study Area Components

Prepared by:
Sadie McGarvey
Johnson Marigot Consulting, LLC
November 1, 2018

San Francisco Bay

Gilman Street

INTERSTATE 80
STATE ROUTE 580

West Frontage Road

 JD Addendum Study Area

 Control Points

Habitat Types

 Beach

 Riprap

 Upland

 Urban

1 inch = 300 feet

 N

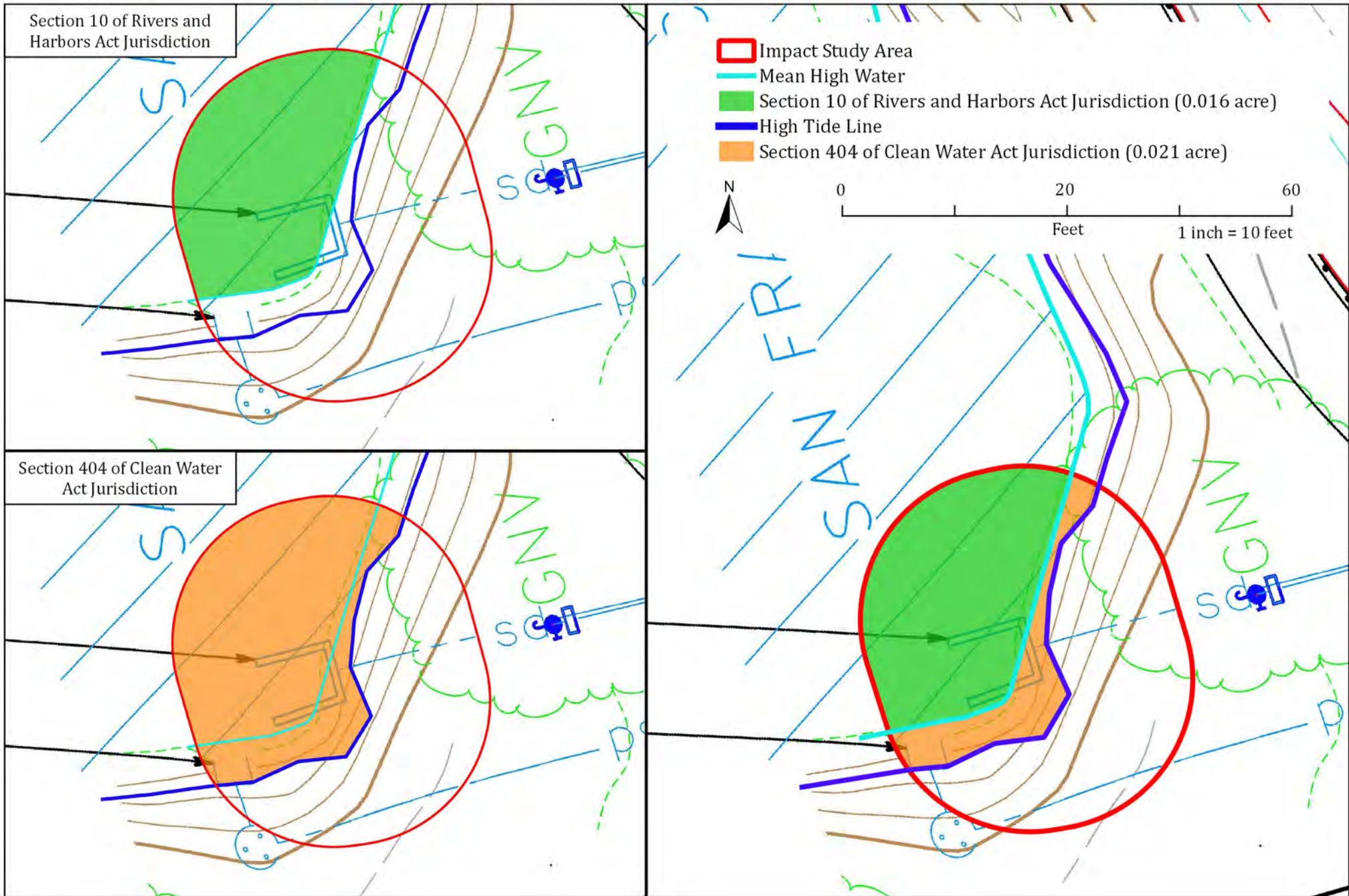
0 250 500
Feet

Figure 3

Unverified Delineation Map of Impact Area

Figure 3. Unverified Delineation Map of Impact Area

Prepared by: Sadie McGarvey, Johnson Marigot Consulting, LLC (June 22, 2018)



Unverified Delineation Map of Waters of the U.S

Study Area
High Tide Line
Approximate Mean High Water

Section 10 of the Rivers and Harbors Act Jurisdiction (1.64 acres)
Section 404 of the Clean Water Act Jurisdiction (1.79 acres)

Figure 4. Unverified Delineation Map of Waters of the U.S.
Prepared by: Sadie McGarvey, Johnson Marigot Consulting, LLC (November 1, 2018)

0 200 400
Feet 1 inch = 135 feet





DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

MAR 16 2018

Regulatory Division

Subject: File Number 2017-00207S

Ms. Jo Ann Cullom
California Department of Transportation, District 4
PO Box 236600
Oakland, California 94623

Dear Ms. Cullom:

This correspondence is in reference to your submittal of September 1, 2017, requesting an approved jurisdictional determination of the extent of navigable waters of the United States and waters of the United States occurring on a 59.5 acre site at the I-80 / Gillman Street Interchange in the City of Berkeley, Alameda County, California.

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States; or below the high tide line in tidal waters of the United States; or within the lateral extent of wetlands adjacent to these waters, typically require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 et seq.). Waters of the United States generally include the territorial seas; all traditional navigable waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters subject to the ebb and flow of the tide; wetlands adjacent to traditional navigable waters; non-navigable tributaries of traditional navigable waters that are relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally; and wetlands directly abutting such tributaries. Where a case-specific analysis determines the existence of a "significant nexus" effect with a traditional navigable water, waters of the United States may also include non-navigable tributaries that are not relatively permanent; wetlands adjacent to non-navigable tributaries that are not relatively permanent; wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary; and certain ephemeral streams in the arid West.

All proposed structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States, in former diked baylands currently below mean high water, outside the limits of mean high water but affecting the navigable capacity of tidal waters or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States, typically require Department of the Army authorization and the issuance of a permit under section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 et seq.). Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide, and/or all

waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce.

The enclosed delineation map titled “I-80 / Gillman Street Interchange, City of Berkeley, California,” in two sheets, date certified February 6, 2018, reflects the absence of jurisdictional waters of the United States and navigable waters of the United States within the boundary area of the site, as defined by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. This approved jurisdictional determination is based on the current upland conditions of the site, as verified during a field investigation of July 18, 2017, a review of available digital photographic imagery, and a review of other data included in your submittal. This approved jurisdictional determination will expire in five years from the date of this letter unless new information or a change in field conditions warrants a revision to the delineation map prior to the expiration date. The basis for this approved jurisdictional determination is explained in the enclosed *Approved Jurisdictional Determination Form*.

The current absence of jurisdictional navigable waters of the United States and waters of the United States within the boundary area of the site does not obviate any requirement to obtain other Federal, State, or local approvals necessitated by law. Any impacts to federally-listed threatened or endangered species and/or designated critical habitat may be subject to regulation by the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under Section 10 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*). Sites located along the margins of San Francisco Bay may be subject to regulation by the San Francisco Bay Conservation and Development Commission under the McAteer-Petris Act of 1965, as amended (Public Resources Code § 66600 *et seq.*), or the Suisun Marsh Preservation Act of 1977, as amended (Public Resources Code §§ 29000-29612 *et seq.*). Therefore, you are urged to contact this agency directly to determine the need for other authorizations or permits.

You are advised that the approved jurisdictional determination may be appealed through the U.S. Army Corps of Engineers' Administrative Appeal Process, as described in 33 C.F.R. § 331 (65 Fed. Reg. 16,486; Mar. 28, 2000) and outlined in the enclosed flowchart and Notification of Administrative Appeal Options, Process, and Request for Appeal (NAO-RFA) Form. If you do not intend to accept the approved jurisdictional determination, you may elect to provide new information to this office for reconsideration of this decision. If you do not provide new information to this office, you may elect to submit a completed NAO-RFA Form to the Division Engineer to initiate the appeal process; the completed NAO-RFA Form must be submitted directly to the Appeal Review Officer at the address specified on the NAO-RFA Form. You will relinquish all rights to a review or an appeal unless this office or the Division Engineer receives new information or a completed NAO-RFA Form within 60 days of the date on the NAO-RFA Form. If you intend to accept the approved jurisdictional determination, you do not need to take any further action associated with the Administrative Appeal Process.

You may refer any questions on this matter to Janelle Leeson of my Regulatory staff by telephone at (415) 503-6773 or by e-mail at Janelle.D.Leeson@usace.army.mil. All correspondence should be addressed to the Regulatory Division, South Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website:
<http://www.spn.usace.army.mil/Missions/Regulatory.aspx>.

Sincerely,



Rick M. Bottoms, Ph.D.
Chief, Regulatory Division

Enclosures

Copy Furnished (w/ encls):

✓ Caltrans, District 4, Oakland, CA (Attn.: Mr. Matthew Rechs)

Copy Furnished (w/ encl 1 only):

CA RWQCB, Oakland, CA

Copy Furnished (w/o encls):

CA SWRCB, Sacramento, CA

DRY LAND APPROVED JURISDICTIONAL DETERMINATION FORM¹
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 6, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: San Francisco District, Interstate Route 80 / Gillman Street Interchange, 2017-00207S

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Alameda City: Berkeley
Center coordinates of site (lat/long in degree decimal format): Lat. 37.878080 °, Long. -122.307242 °
Universal Transverse Mercator:
Name of nearest waterbody: SF Bay
Name of watershed or Hydrologic Unit Code (HUC): 18050002

- Check if map/diagram of review area is available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date:
 Field Determination. Date(s): July 18, 2017

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

SECTION III: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
 Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 Office concurs with data sheets/delineation report.
 Office does not concur with data sheets/delineation report: Data sheets contain incorrect vegetation indicator status and therefore do not represent the correct determination for the presence of hydrophytic vegetation.
 Data sheets prepared by the Corps:
 U.S. Geological Survey Hydrologic Atlas:
 USGS NHD data.
 USGS 8 and 12 digit HUC maps.
 U.S. Geological Survey map(s). Cite scale & quad name:
 USDA Natural Resources Conservation Service Soil Survey. Citation:
 National wetlands inventory map(s). Cite name:
 State/Local wetland inventory map(s):
 FEMA/FIRM maps:
 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
 Photographs: Aerial (Name & Date):
 or Other (Name & Date):
 Previous determination(s). File no. and date of response letter: SPN-2007-400314
 Applicable/supporting case law:
 Applicable/supporting scientific literature:
 Other information (please specify): As-build designs

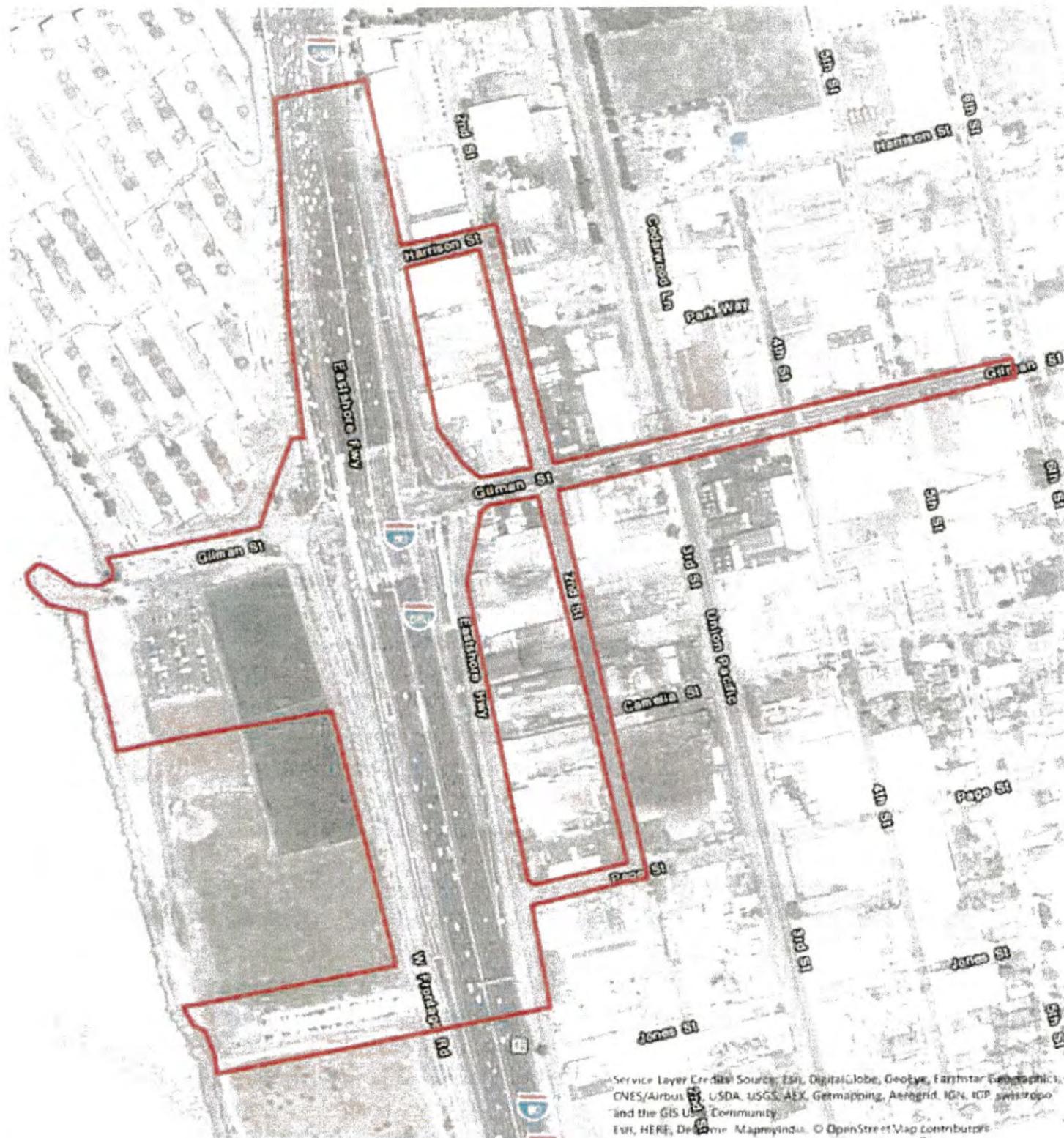
B. REQUIRED ADDITIONAL COMMENTS TO SUPPORT JD. EXPLAIN RATIONALE FOR DETERMINATION THAT THE REVIEW AREA ONLY INCLUDES DRY LAND: Swale 1:

Swale 1: Swale 1 is an approximate 300-foot long depression receiving runoff from a drainage outlet. Per design plans provided by the applicant, swale one is a constructed bio-swale for the purpose of stormwater treatment. Per the definition of Waters of the U.S. (40 CFR 230.3(s)), waste

¹ This form is for use only in recording approved JDs involving dry land. It extracts the relevant elements of the longer approved JD form in use since 2007 for aquatic areas and adds no new fields.

treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States. Furthermore, a preliminary jurisdictional determination (PJD) was completed for this portion of the project area, found in file SPN-2007-400314. The PJD verifies that the bio-swale was constructed in uplands.

Swale 2: Swale 2 is an approximate 560-foot long depression receiving runoff from the Bay Trail. The swale drains into two different drainage inlets, located near both ends of the swale. The inlets connect to the City storm drain system. A PJD was completed for this portion of the project area, found in file SPN-2007-400314. This PJD and design plans provided by the applicant depict that swale 2 is a ditch constructed entirely within uplands.



Service Layer Credits Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus, USDA, USGS, AEX, Getmapping, Aergrid, IGN, ICP, swisstopo, and the GIS User Community
 Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

Study Area
 Interstate 80/Gilman Street Interchange Improvement Project
 City of Berkeley, Alameda County, California

 Study Area

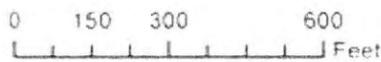


Figure 4. Study Area Map

August 2017

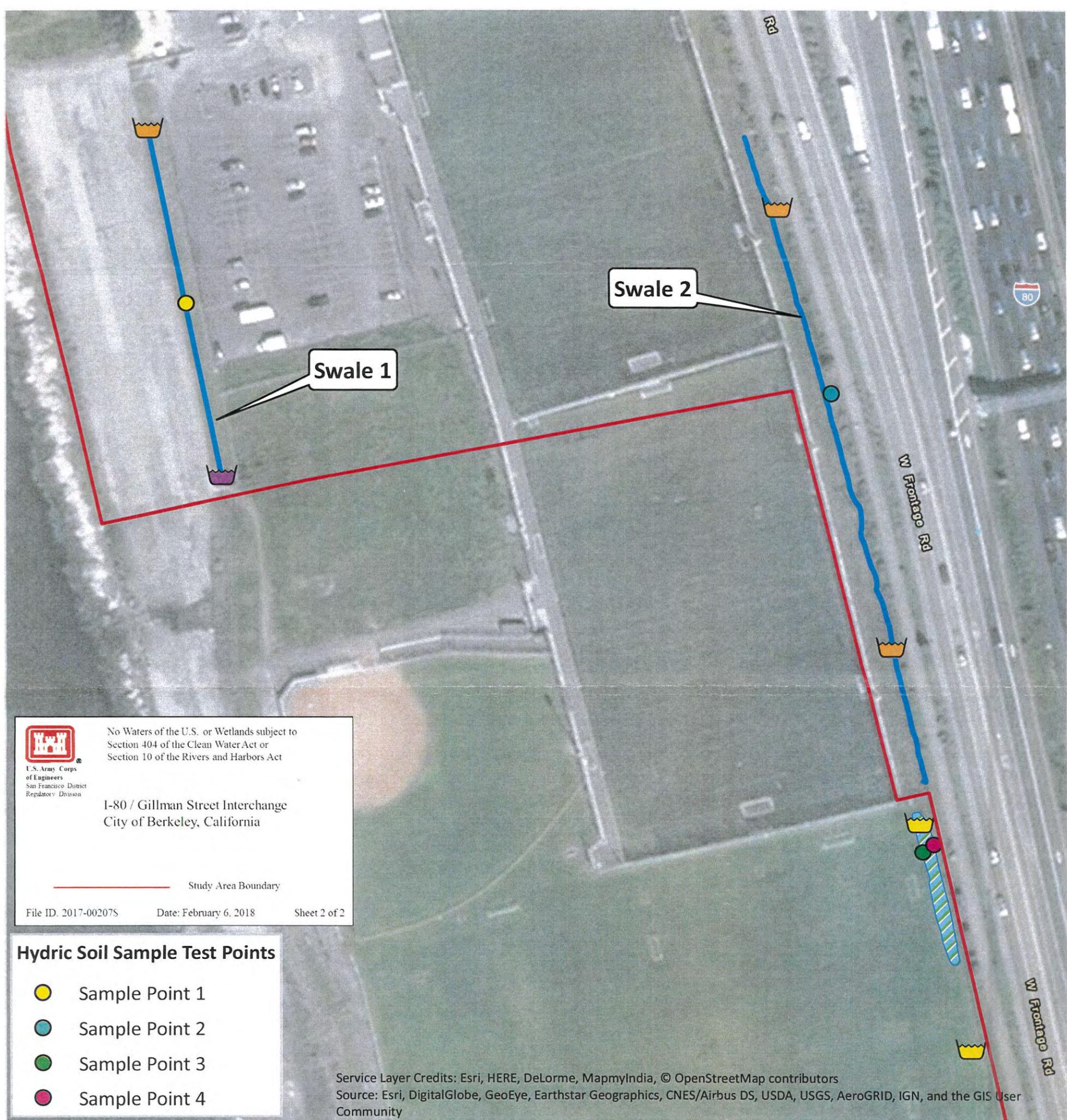
 No Waters of the U.S. or Wetlands subject to Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act

U.S. Army Corps of Engineers
 San Francisco District
 Regulator: Division

I-80 / Gillman Street Interchange
 City of Berkeley, California

 Study Area Boundary

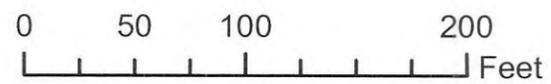
File ID: 2017-00207S Date: February 6, 2018 Sheet 1 of 2



Surveyed Features

*Interstate 80/Gilman Street Interchange Improvement Project
City of Berkeley, Alameda County, California*

- | | | | |
|--|--------------|---|-----------------|
|  | BSA |  | Drainage Grate |
|  | Depression 1 |  | Drainage inlet |
|  | Swale |  | Drainage outlet |



NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: California Department of Transportation	File Number: 2017-00207S	Date: 6 Feb 2018
Attached is:		See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/cecw/pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
Katerina Galacatos
South Branch Chief, Regulatory Division
San Francisco District, U.S. Army Corps of Engineers
1455 Market Street, 16th floor
San Francisco, CA 94103-1398
Phone: (415) 503-6778 Email: Katerina.galacatos@usace.army.mil

If you only have questions regarding the appeal process you may also contact: Thomas J. Cavanaugh
Administrative Appeal Review Officer,
U.S. Army Corps of Engineers
South Pacific Division
1455 Market Street, 2052B
San Francisco, California 94103-1399
Phone: (415) 503-6574 Fax: (415) 503-6646
Email: thomas.j.cavanaugh@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> Signature of appellant or agent.	Date:	Telephone number:
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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Gilman JD Addendum Study Area City/County: Berkeley/Albany, CA Sampling Date: 5/9/18
 Applicant/Owner: Caltrans State: CA Sampling Point: 1
 Investigator(s): Sadie McGarvey Section, Township, Range: S33 T1N R4W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5
 Subregion (LRR): _____ Lat: 37.882751° Long: -122.312556° Datum: _____
 Soil Map Unit Name: Urban Land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Representative upland data point	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>60</u> x 3 = <u>180</u> FACU species _____ x 4 = _____ UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>80</u> (A) <u>280</u> (B) Prevalence Index = B/A = <u>3.5</u>
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Festuca perennis</u>	<u>60</u>	<u>X</u>	<u>FAC</u>	
2. <u>Brassica nigra</u>	<u>20</u>	<u>X</u>	<u>NL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____				

Remarks:
 Dominated by upland species.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Gilman JD Addendum Study Area City/County: Berkeley/Albany, CA Sampling Date: 5/9/18
 Applicant/Owner: Caltrans State: CA Sampling Point: 2
 Investigator(s): Sadie McGarvey Section, Township, Range: S33 T1N R4W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): _____ Lat: 37.882230° Long: -122.312188° Datum: _____
 Soil Map Unit Name: Urban Land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point to determine wetland status. Located in compacted fill behind building.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: _____ Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Polypogon monspeliensis</u>	<u>50</u>	<u>X</u>	<u>FACW</u>	
2. <u>Festuca perennis</u>	<u>5</u>	_____	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>45</u> % Cover of Biotic Crust _____				

Remarks:
 Vegetation dominated by wetland species.

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
---	--	---

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>
---	---

Remarks:

Disturbed fill, primarily gravel, no redox present.

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>		<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>		<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>	
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>		<p>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></p>			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No surface hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Gilman JD Addendum Study Area City/County: Berkeley/Albany, CA Sampling Date: 5/9/18
 Applicant/Owner: Caltrans State: CA Sampling Point: 3
 Investigator(s): Sadie McGarvey Section, Township, Range: S33 T1N R4W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10
 Subregion (LRR): _____ Lat: 37.882713° Long: -122.313783° Datum: _____
 Soil Map Unit Name: Urban Land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland point on a slope adjacent to beach.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Hordeum murinum</u>	<u>40</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Foeniculum vulgare</u>	<u>10</u>		<u>NL</u>	
3. <u>Raphanus sativus</u>	<u>50</u>	<u>X</u>	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>		

Remarks:
 Dominated by upland vegetation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Gilman JD Addendum Study Area City/County: Berkeley/Albany, CA Sampling Date: 5/9/18
 Applicant/Owner: Caltrans State: CA Sampling Point: 4
 Investigator(s): Sadie McGarvey Section, Township, Range: S33 T1N R4W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR): _____ Lat: 37.879040° Long: -122.303442° Datum: _____
 Soil Map Unit Name: Urban Land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Representative data point for urban habitat.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
0 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>				

Remarks:
 Sidewalk with landscaping strip adjacent.

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Sidewalk.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) **(Nonriverine)**
- Sediment Deposits (B2) **(Nonriverine)**
- Drift Deposits (B3) **(Nonriverine)**
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water Marks (B1) **(Riverine)**
- Sediment Deposits (B2) **(Riverine)**
- Drift Deposits (B3) **(Riverine)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sidewalk.

Representative Site Photographs



Photo 1: Representative photograph taken from beach looking east-southeast toward the headwall.

4/11/18



Photo 2: Photograph taken looking west from foot of shoreline protection.

4/11/18



Photo 3: Photograph taken looking east toward outfall along Fleming Point (south of project boundary).

4/11/18