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2 **2.1 NEED FOR PROJECT**

3 On August 10, 1988, the California State Lands Commission (CSLC) authorized a 30-
4 year General Lease – Right-of-Way Use for the use and maintenance of three
5 submerged pipe outfalls at three sites in Suisun Bay, named sites III, IV, and V. Of the
6 three outfalls authorized, only the outfall at Site V was constructed. The outfall was used
7 to discharge process wastewater from an electrical generating power plant in the
8 unincorporated community of Bay Point, Contra Costa County. The outfall has been
9 decommissioned since the power plant ceased operation in 2012. In 2013, the plant
10 was demolished. On March 25, 2014, GWF Power Systems, L.P. (GWF or Applicant)
11 submitted an application to the CSLC for the proposed removal of the outfall facilities
12 and subsequent lease termination under the terms of the lease. The application
13 includes the complete removal of in-water high-density polyethylene (HDPE) pipe
14 materials below mean high water (MHW), including steel and concrete ballast weight
15 “baskets” and two wood pilings demarking the outfall landward of the Suisun Bay.

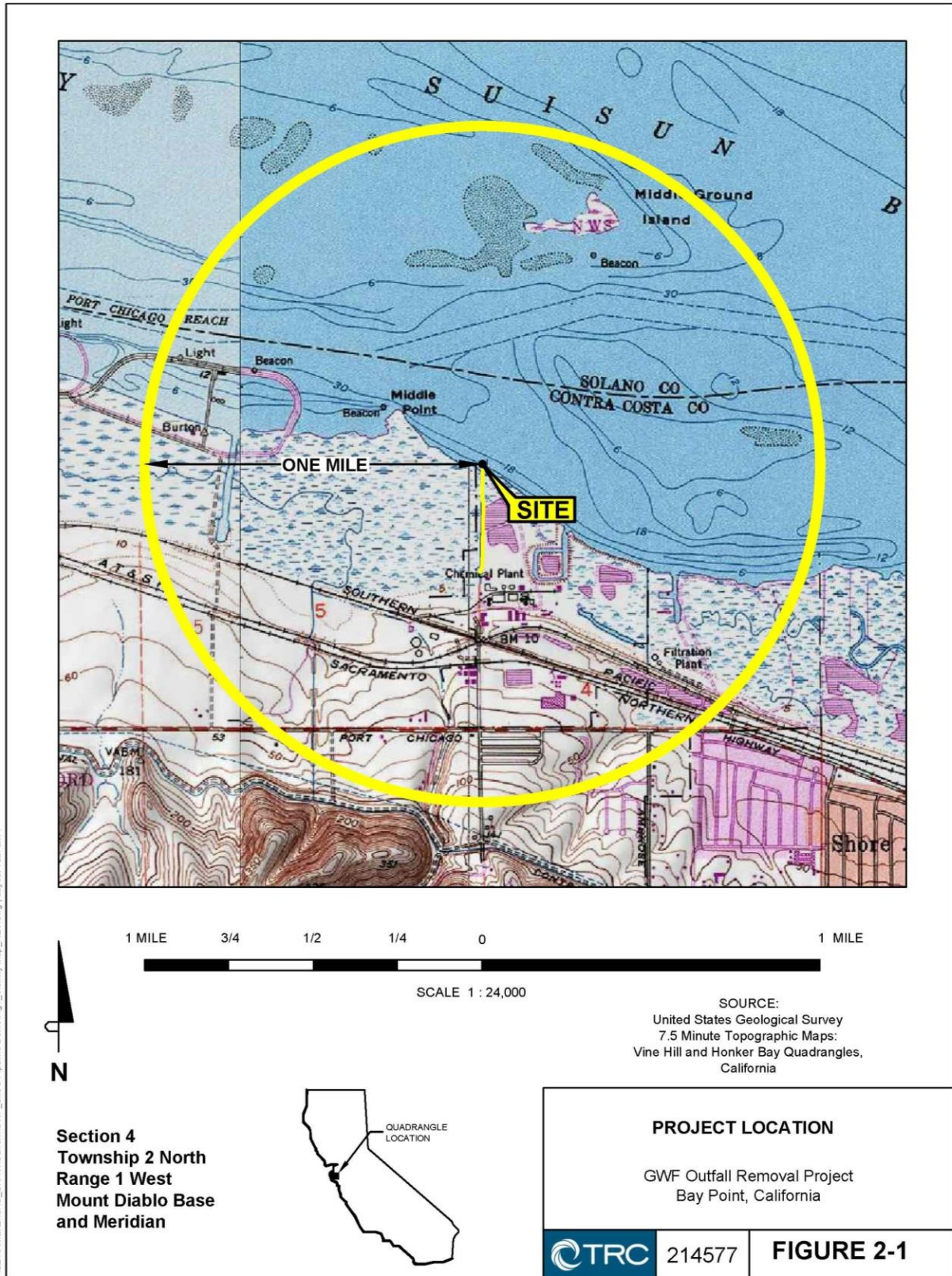
16 **2.2 PROJECT LOCATION**

17 The proposed Project is located in the Suisun Bay, near the city of Bay Point in
18 unincorporated Contra Costa County (see Figure 2-1). The property at 555 Nichols
19 Road, upland of the outfall location, is a former GWF power plant that has been
20 decommissioned and demolished.

21 The outfall is situated approximately 0.6 mile to the east of the Concord Naval Weapons
22 Station, Military Ocean Terminal; 0.8 mile to the south of Middle Ground Island in
23 Suisun Bay; approximately 1.9 miles to the west of McAvoy Yacht Harbor in Bay Point
24 and further (about 3 miles total along the shoreline) to the west of the mouth of the
25 Sacramento River; and 0.9 mile to the north of Port Chicago Highway.

26 **2.3 EXISTING FACILITIES**

27 The general Project area is approximately 4 acres of ungranted sovereign lands,
28 including an approximately 200-foot buffer surrounding the outfall/diffuser, which has an
29 “actual” footprint of 0.003 acre (139.5 square feet). The Project is to remove
30 approximately 275 feet of HDPE pipe. The Project area of disturbance used for
31 analyzing impacts is approximately 0.06 acre of waters of the United States and the
32 State of California (i.e., a 275-foot-by-10-foot corridor).



1 The Project site is located primarily offshore, with the only onshore portion being an
2 existing levee road that may provide onshore access for servicing of equipment,
3 providing support for cutting the wood piles, or for the expedient evacuation of an
4 injured worker. The contractor's shore base is anticipated to be at an existing marina
5 facility no more than 10 miles from the Project site.

6 The outfall is the terminus of an existing 6-inch steel discharge pipe which begins at the
7 site of the now demolished power plant. It runs northerly on footings where it becomes
8 aboveground, along relatively level ground berm above an aluminum sulfate pond and
9 further north, a widespread coastal marsh with only small topographic changes as the
10 land uses change from industrial, on a berm past the depressed aluminum sulfate pond,
11 through coastal marsh, and to the shoreline. The Project does not include removal of
12 this 1,400-foot, aboveground, 6-inch-diameter carbon steel pipe, as it is located entirely
13 on private property not under the control of the Applicant.

14 There is no safe access to the Project site from upland locations. To the south of the
15 Project is ChemTrade – Bay Point Works. The facility occupies approximately 26 acres,
16 and is an operating sulfuric acid plant. Access to the property is controlled at the gate.
17 Honeywell property is adjacent to the property and is an additional industrial use. To the
18 west, the federally-controlled Port Chicago Military Ocean Terminal property is adjacent
19 to the GWF pipe right-of-way

20 The Contra Costa County General Plan designates the area for Heavy Industrial and
21 Public/Semi-Public land use which previously included the now demolished GWF power
22 plant. Public/Semi-Public land is located to the southwest of the Project site within which
23 is active use by the Burlington Northern Santa Fe (BNSF) Railroad and Union Pacific
24 Railroad (UPRR). Residential uses are located more than 1 mile away. There are no
25 sensitive land uses such as hospitals, retirement communities, or schools located
26 adjacent to or within 1 mile of the Project site. Open Space surrounds the Project site,
27 however, this Open Space designation serves as a conservation measure for the
28 coastal marsh that is prevalent in the area, and is generally not accessible to the public.

29 **2.4 DESCRIPTION OF THE PROPOSED PROJECT**

30 GWF proposes to remove the in-water portions of the outfall/diffuser piping and the
31 wood pile markers at the outfall point. Elements of the outfall structure to be removed
32 include:

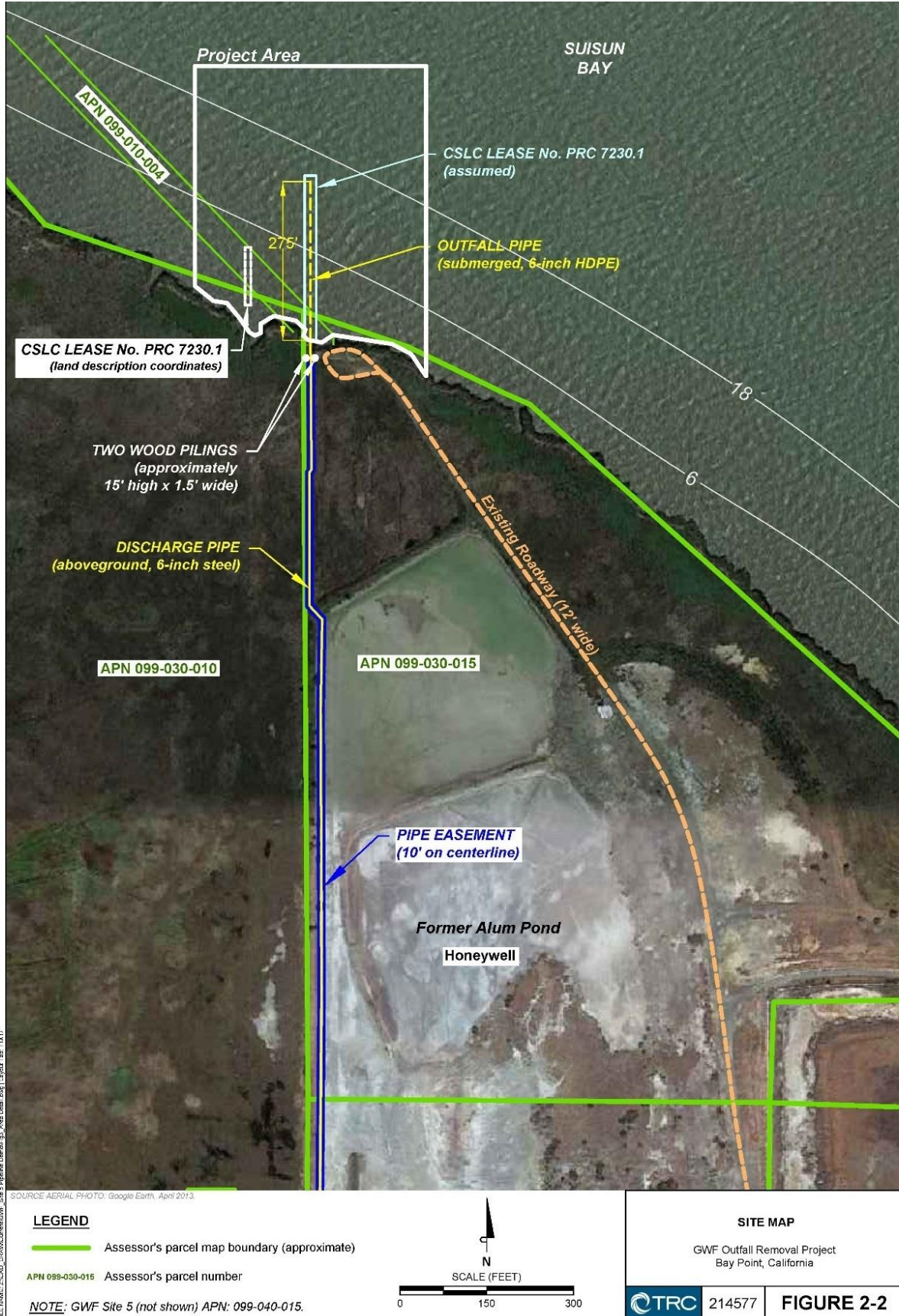
- 33 • An approximately 275-foot-long by 6-inch-diameter HDPE pipe running
34 perpendicular to the shoreline into Suisun Bay with fifteen 3-inch-diameter HDPE
35 diffuser risers spaced at 30-inch intervals beginning at ~220 feet offshore; and
- 36 • Two 16-foot-high by 1-foot-diameter wood piles on the shoreline below MHW,
37 marking the point where the discharge pipe enters into Suisun Bay.

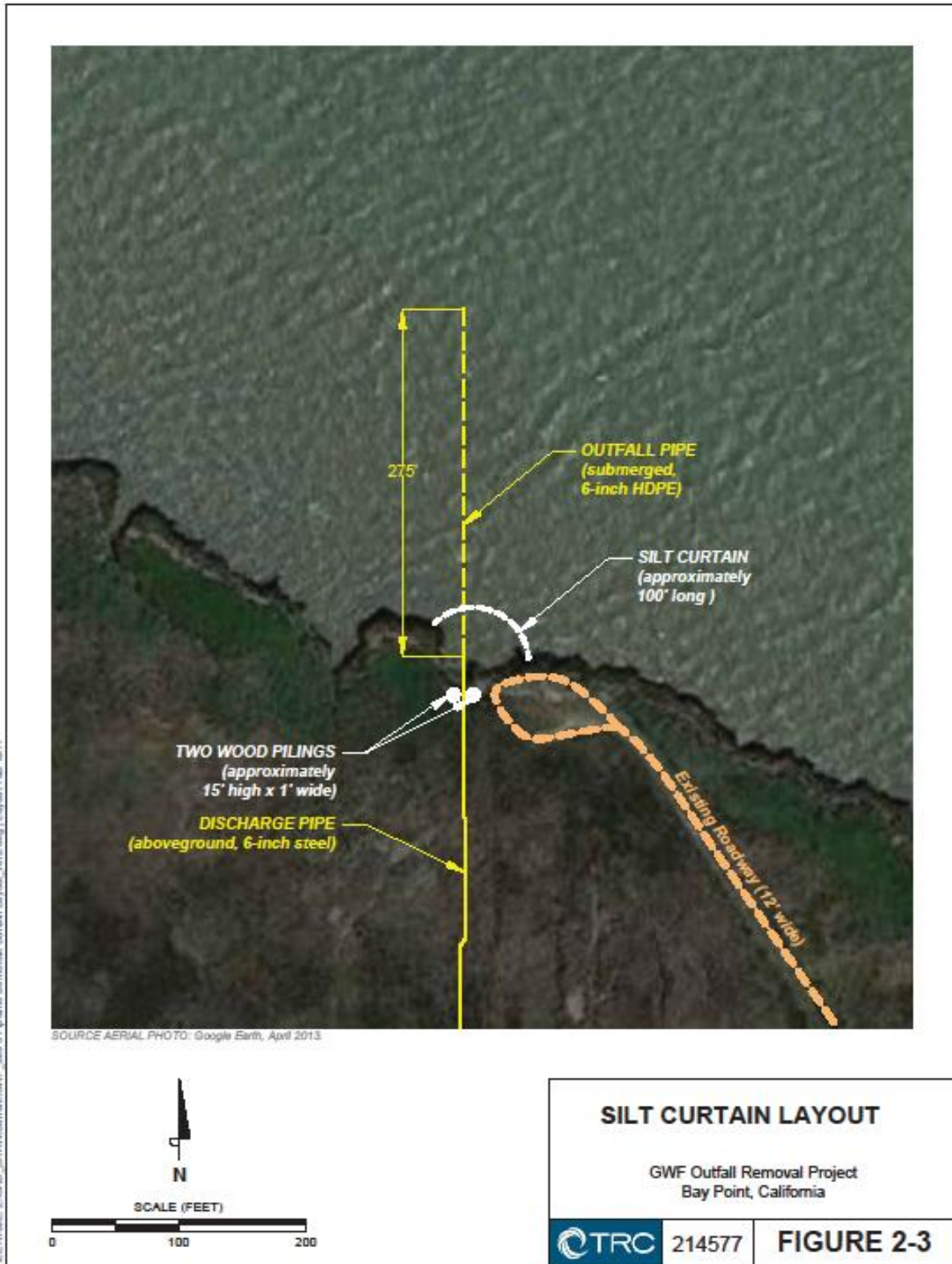
1 The piping will be removed entirety to the shoreline terminus at the MHW mark, where it
2 connects to the onshore pipe. The two wood pile structures marking the outfall at the
3 shoreline and protecting the outfall, will be removed to at least 24 inches below the mud
4 line. Removal of the outfall pipe will also include the removal, demolition and disposal of
5 both of the wood piles along with the installation of a blind flange closure plate onto the
6 land-portion terminus flange. None of the armor cover rock or bedding gravel will be
7 removed from the pipe corridor and no other substrate fill, grade levelling or other
8 restoration will be performed.

9 The removal activities will primarily be carried out from floating equipment staged from
10 the water near the shoreline with the exception of a light utility work vehicle parked
11 onshore that would be used to assist with servicing of equipment or for the expedient
12 evacuation of an injured worker. This temporary vehicular access for emergency
13 services would use the existing 12-foot-wide levee road, shown in Figure 2-2. This
14 existing road will also allow for access from onshore for the Applicant, its contractors,
15 site monitors, agency representatives or other authorized personnel observing
16 operations. The temporary access roadway is on private land and use is subject to the
17 authorization by the landowner (Honeywell International). Prior approval will be
18 necessary. All removal vessels, equipment and other materials would be removed at the
19 Project completion.

20 Prior to initiating pipe removal, with the floating barge stationary (with anchor spuds in
21 place) and securely moored adjacent to the pipe terminus, water jetting will be
22 completed around the underside of the pipe, approximately five feet from the pipe
23 terminus. A suitable, sturdy chain will be positioned around the pipe (a “choke”) to grip
24 and enable lifting. The pipe will be lifted and peeled back (in 10- to 20-foot sections),
25 and divers will relocate the choke/lifting chain along the pipe alignment as the pipe is
26 recovered while working toward the shoreline. Water jetting activities are expected to
27 occur only at the beginning of pipe removal activities. Divers will locate the diffuser
28 section and install mechanical plugs into the top of the 3-inch vertical riser ports to
29 contain the sediment.

30 The 6-inch HDPE submarine pipe will be disconnected from the land-portion above
31 ground steel pipe. This shoreline terminus of the 6-inch pipe will then be secured to the
32 two timber pilings. A 100-foot-long semi-circular silt/turbidity curtain will be connected to
33 the shoreline (east and west of the wood pilings) by driven stakes to encompass the
34 wood pilings and outfall connection at the shoreline. An anchor will be placed near the
35 apex of the semi-circle and at the end of each 50-foot section to hold the silt curtain in
36 place. The layout of the silt curtain is shown in Figure 2-3.





1 Buoys will be affixed to the HDPE pipe section to help it float and keep it visible while
2 securing the 6-inch outfall terminus to a larger buoy and mooring at the furthest point
3 offshore. When the on-barge equipment is no longer able to “peel” the buried pipe off
4 the bottom at the appropriate angle, the barge will be relocated closer to the shoreline
5 and secured in place with the anchor spuds.

6 During low tidal cycles, particularly when working close to the shore in shallow water
7 depths, the “peeling” back of the HDPE pipe from its corridor will be temporarily secured
8 in order to recover the floating section of the pipe. The section of floating pipe will be
9 lifted onto the deck of the barge. Mechanical “stopper” plugs will be placed at both ends
10 of each pipe section to contain sediment.

11 The two timber piles located along the shoreline (next to the 6-inch steel flange
12 connection) will be extracted and/or cut to 24 inches below the mud-line, floated and
13 recovered onto the barge, and cut into manageable pieces as necessary. The timber
14 piles are assumed to be coated with creosote residue and will be transported and
15 properly disposed at Keller Canyon Landfill in Pittsburg.

16 Several environmental controls to be implemented include (but are not limited to):

- 17 • All engine-powered equipment used and operated upon and from the deck of the
18 barge will use drip-pans or other means to retain fluids beneath the equipment.
- 19 • Only approved and certified fuel cans with “no-spill” spring loaded lids will be
20 used when fueling up diesel or gas engines. Engines will be turned OFF and
21 fueling will not be done over the water. A spill kit with absorbent diapers will be
22 readily available next to each filling area.
- 23 • A continuous floating oil-absorbent sock will be deployed and maintained around
24 the entire barge to contain any accidental leakage of fuel or hydraulic fluids.
- 25 • A turbidity curtain (100 linear feet) shall be installed and maintained around the
26 shoreline terminus flange of the pipe to maximize sediment containment that may
27 discharge from the pipe and/or be resuspended from the water bottom during
28 removal. Additionally, turbidity will be minimized by removing the pipe with slow,
29 controlled movements. Sawdust generated during timber piling cutting and
30 removal will also be contained in this curtain and/or skimmed and removed if
31 floating in water (and disposed of in plastic bags).
- 32 • Cutting and removal of the timber piles 24 inches below the mudline will follow
33 the methods identified by the U.S. Army Corps of Engineers (USACE) in its Best
34 Management Practices for Pile Removal (dated 1 March 2007) to control turbidity
35 and sediments re-entering the water column during pile removal, capture debris,
36 and dispose of removed piles and debris.

- 1 • Native bay mud will be repositioned to accommodate wood pile cutting and will
2 be replaced within the minor voids after cutting and piling removal is complete.
- 3 • The piles will be placed in a containment basin on the barge to capture any
4 adhering sediment, immediately after the pile is removed from the water. Piles
5 will be cut into manageable lengths.
- 6 • The Project will use U.S. Coast Guard compliant stationary barge mooring
7 equipment, including marker flags and nighttime illumination and flashers.
- 8 • A plastics recycling company will be hired by the Applicant to transport an
9 estimated as 1,950 pounds (275 linear feet at 7.09 pounds per linear foot) of
10 HDPE pipe materials. In the event recycling is not feasible, the pipe materials will
11 be delivered to an off-site landfill.

12 The work will be scheduled for a time of year that minimizes effects to sensitive
13 ecological resources, including threatened and endangered species as designated by
14 National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS),
15 and California Department of Fish and Wildlife (CDFW) (further described in Section
16 3.4, Biological Resources). Onshore activities will be designed to avoid disturbance of
17 tidal marsh habitat (identified in Section 3.4, Biological Resources).

18 **2.5 PROJECT SCHEDULE**

19 The Project is scheduled to occur over a consecutive 2-week period between
20 September 1 and October 31. The entire removal operation is scheduled to be
21 performed during 5-day weekday work weeks (estimated at 10 work days total). The
22 schedule includes time to stage/mobilize all equipment to the pipe outfall location,
23 remove and recover approximately 275 linear feet of 6-inch-diameter HDPE outfall pipe
24 and remove and dispose of both shoreline timber piling and for the transit and recycling
25 of all HDPE pipe materials.

26 The timing of the Project in September or October falls within the work window generally
27 accepted by the USFWS, from the Carquinez Strait to Collinsville (i.e., the Lower
28 Estuarine River) of August 1 through November 30 (Levine-Fricke 2004 and TRC,
29 March 2014). The precise schedule dates will depend on the environmental work
30 windows acceptable for performing the work to ensure that impacts to sensitive
31 ecological species are minimized to the extent feasible.

32 The Project's schedule also falls within the non-nesting season (September through
33 January) of onshore special status species likely to be present in the marsh habitat
34 adjacent to the outfall and the existing levee road.