

# Initial Study/ Proposed Mitigated Negative Declaration Pittsburg Terminal Deconstruction Project



March 2019

*Prepared For:*  
City of Pittsburg  
65 Civic Avenue  
Pittsburg, CA 94565

*Prepared By:*  
TRC

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### List of Acronyms and Abbreviations

<b>Acronym</b>	<b>Name</b>
ACM	asbestos-containing material
AFY	acre-feet per year
Applicant	Tesoro Refining and Marketing Company, LLC
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
CalEEMod	California Emission Estimator Model
CalEMA	California Emergency Management Agency
CARB	California Air Resources Board
CCCFPD	Contra Costa County Fire Protection District
CCWD	Contra Costa Water District
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
City	City of Pittsburg
CRHR	California Register of Historical Resources
CY	cubic yard
dB	decibels
dBA	A-weighted decibels
DDSD	Delta Diablo Sanitation District
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
GHG	greenhouse gas emissions
IS/MND	Initial Study/Mitigated Negative Declaration
MGD	million gallons per day
MM	mitigation measure
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NWIC	Northwest Information Center

RWQCB	Regional Water Quality Control Board
SR	State Route
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
WEAP	Worker Environmental Awareness Program
WWTP	wastewater treatment plant

## 1.0 INTRODUCTION

### 1.1 Project Overview

Tesoro Refining and Marketing Company, LLC (“Tesoro” or “Applicant”) has submitted to the City of Pittsburg (“City”) a request for approvals necessary for the Pittsburg Terminal Deconstruction Project (“Proposed Project” or “Project”). The Project site includes an approximately 2.72-acre parcel located almost entirely within New York Slough (APN: 073-010-011; the “Marine Parcel” – tidelands owned by the State of California and managed by the City<sup>1</sup>), as well as a small portion of two “Mainland Parcels” (APN: 073-010-007 and APN 073-010-013). It is also noted that portions of the site extending to the east and west span beyond the defined Marine Parcel (e.g., portions of the terminal walkway and multiple dolphins are located within portions of New York Slough outside of the defined Marine Parcel). The site does not maintain a physical address, but is located approximately 600 feet north of the intersection of East 3rd and Harbor Streets, northeast of downtown Pittsburg, California.

Tesoro purchased the Mainland Parcels from Ultramar in 2003 and entered into a lease agreement with the City for use of the Marine Parcels to operate a coke-loading facility. Tesoro ceased operations of the coke facility in 2010. In 2018, Tesoro sold the Mainland Parcels to Making Waves Academy, a charter school based in Richmond, California.

Tesoro has terminated its lease with the City associated with the marine terminal at the site located on the Marine Parcel, which are tidelands and submerged lands under trust to the City. Tesoro is required to remove the marine terminal as a condition of terminating the lease. Tesoro plans to start deconstruction of the marine terminal in 2019 after receipt of all regulatory permits.

### 1.2 California Environmental Quality Act

The termination of the marine terminal lease agreement and removal of the marine terminal constitutes a “project” as defined by the California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.) and the “CEQA Guidelines” (California Code of Regulations, Title 14, section 15000 et seq.), and is thereby subject to the requirements of CEQA. For the purposes of CEQA, the term “project” refers to the whole of an action which has the potential to result in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines section 15378). As the principal public agency responsible for approval the Proposed Project, the City is the “lead agency,” overseeing and administering the CEQA environmental review process.

As set forth in various provisions of the CEQA Statute (e.g., section 21080), before deciding whether to approve a project, public agencies must consider the potential significant environmental impacts of the project and must identify feasible measures to minimize these impacts. Pursuant to CEQA Guidelines section 15064, if any aspect of the proposed project, either individually or cumulatively, may cause a significant effect on the environment which cannot be

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<sup>1</sup> The California Legislature granted sovereign tidelands and submerged lands located within the City limits to the City of Pittsburg under Senate Bill 551, Chapter 422, Statutes of 2011. These granted lands, referred to in this Plan as Trust Lands, are held in trust for the people of California.

mitigated to less-than-significant levels, regardless of whether the overall effect of the project is adverse or beneficial, an Environmental Impact Report (EIR) must be prepared. An EIR is not required if the adverse environmental impacts can be mitigated to less-than-significant levels, and a Mitigated Negative Declaration may be prepared for the project.

This Initial Study/Mitigated Negative Declaration (IS/MND) is a factual document, prepared in conformance with CEQA, and written to make the public and decision-makers aware of any potential environmental consequences of the Proposed Project. For any Project impact that is considered potentially “significant,” the IS/MND identifies mitigation measures to avoid or reduce potentially significant impacts to less-than-significant levels. Before any action can be taken to approve the Proposed Project, the City must certify that it has reviewed and considered the information in the IS/MND and that this document has been completed in conformity with the requirements of CEQA. Adoption of a Mitigated Negative Declaration does not approve or deny a proposed project.

### **1.3 Environmental Review**

Consistent with CEQA, this IS/MND is an informational document for use by governmental agencies and the public to identify and evaluate potential adverse environmental impacts resulting from the Proposed Project, and to recommend mitigation measures and/or standard conditions of approval to lessen or eliminate adverse impacts.

This Initial Study is available for public review for 30 days from March 5, 2019, during which time written comments on the Initial Study may be submitted to:

Jordan Davis, AICP  
Senior Planner  
City of Pittsburg  
Planning Division  
65 Civic Avenue  
Pittsburg, CA 94565  
jdavis@ci.pittsburg.ca.us

## 2.0 PROJECT DESCRIPTION

The site is located in the City of Pittsburg along New York Slough, southeast of the Pittsburg Marina, as shown on Figure 1. The Pittsburg marine terminal, commonly referred to as the “dock,” consists of a platform, fender system, timber and concrete dolphins, walkways, decks, piles, and one small building believed to previously have been used as a water pump station, as shown on Figure 2. The entire site was developed in the 1940s for the purpose of the marine terminal. Figure 3 provides representative photographs of the site.

### 2.1 Purpose

The purpose of the Proposed Project is to remove the marine terminal as a condition of terminating the lease agreement between Tesoro and the City. The Proposed Project would include the deconstruction of the Pittsburg marine terminal, including the platform, fender system, all dolphins, walkways, decks, piles, and the small building. There is no construction associated with the Proposed Project.

### 2.2 Existing Conditions and Overview of Deconstruction Project Design

Deconstruction activities would occur on the terminal and in the water; vessels and staging areas would be located strategically within and along the site to accommodate the required deconstruction activities. The marine contractor would use derrick and debris barges to execute the deconstruction work. Types of barges may include two derrick barges with upward of 100-ton crane capacity and four debris barges for marshaling materials/equipment. A staging area on land would be used for placement of up to two construction trailers, parking for a maximum of 10 automobiles, portable sanitary facilities, and staging of equipment and debris containers for building deconstruction.

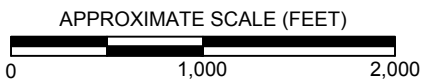
The Project components for deconstruction are described in further detail, below.

#### 2.2.1 Terminal Platform

Constructed in 1942, the 45,000-square-foot terminal platform structure consists of approximately 600 creosote-treated 14-inch-diameter timber piles, 12-inch by 12-inch timber pile caps, 4-inch by 12-inch stringer beams, and 2-inch by 12-inch deck boards. An isolation fabric covers the deck boards followed by a 3-inch-thick layer of asphalt that forms the final walking surface over most of the platform. On the west approach, there is a 3,000-square-foot, 4-inch-thick concrete pad that served as the foundation slab for a building that was demolished in 2013. There are two 24-inch-diameter steel piles used for bollards on the platform, as well as 31 14-inch-diameter timber piles located south of the terminal platform that are not attached to any of the main terminal structures.



SOURCE AERIAL PHOTO: Google Earth, April 2018.



**VICINITY MAP**  
 Initial Study  
 Application for Termination of Lease Agreement  
 Tesoro Refining and Marketing - City of Pittsburg  
 Pittsburg, California



312122

**FIGURE 1**

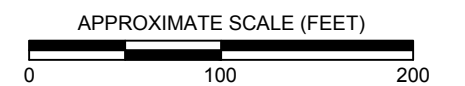
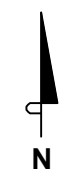


FILE NAME: Z:\Shared\CAD\_DRAWING\Current\City of Pittsburg\_Terminal Deconstruction\Fig2\_Project Site Layout.dwg | Layout Tab: 11x17



**LEGEND**

- Approximate parcel boundary
- APN  
073010011 Assessor's parcel number



SOURCE AERIAL PHOTO: Google Earth, April 2018.

**PROJECT SITE LAYOUT**

Initial Study  
 Application for Termination of Lease Agreement  
 Tesoro Refining and Marketing - City of Pittsburg  
 Pittsburg, California



312122

**FIGURE 2**



**Figure 3: Site Photographs**



Building, facing west



Fender piles





Concrete dolphin



West walkway



Terminal platform view



Terminal platform view

### 2.2.2 Fender System

A timber-pile-supported, timber waler structure with a continuous spring fender system runs along the north face of the terminal platform.

### 2.2.3 Dolphins and Walkways

As shown on Figure 2, the balance of the above-water structures that would be removed consists of five dolphins along the north face of the terminal; the western walkway spans between dolphins W-1, W-2, W-3, and the main terminal platform; and the eastern walkway spans between the main terminal platform, dolphins E-1 and E-2, and the shore. Dolphin W-1 is located at the far west end of the terminal and is constructed of reinforced concrete, while the remaining dolphins are of timber construction.

### 2.2.4 Piles

There are 938 piles at the site that would be removed during deconstruction activities. Terminal drawings suggest that the piles may be upwards of 94 feet long. A breakdown of the pile material and diameters is shown below:

<b>Diameter (type)</b>	<b>Quantity</b>
14-inch-diameter timber piles	924
18-inch square reinforced concrete piles	11
16-inch-diameter steel pile	1
24-inch-diameter steel piles	2

### 2.2.5 Building

An abandoned 20-foot by 30-foot building is located on shore near the west approach onto the terminal platform (refer to Figure 2). The building, including miscellaneous contents, would be removed in its entirety, after abatement of identified hazardous materials using appropriately qualified contractors is complete. Hazardous materials potentially present include asbestos-containing material in piping and building sidings.

## 2.3 Construction Schedule and Equipment

The entire deconstruction Project is expected to span nine months and would take up to approximately 120 working days. Barges for work and staging, including derrick and debris barges, are estimated to be present for up to seven months, and in-water work is estimated to take approximately 85 working days. Barges would be towed in at the onset of the in-water work using tugboats, which would swap out debris barges approximately twice per week. Derrick barges would be towed in and remain onsite for the entirety of the in-water work.

The Proposed Project would be expected to generate up to an estimated 24 construction jobs during peak deconstruction periods. The typical work day for the Proposed Project is anticipated to require 10-hour days and a 4-day work week. Crew vehicles (i.e., personal vehicles) would arrive daily before 7 a.m. and depart after 5:30 p.m.

The deconstruction would be scheduled to begin after receipt of requisite permits. The Project is anticipated to be deconstructed in the following phases.

- Mobilize: April 2019
- Remove above-deck appurtenances: May 2019
- Remove main platform: May to July 2019
- Remove walkways: June to July 2019
- Remove dolphins: July to September 2019
- Remove piles: August to October 2019
- Debris scan: October 2019
- Remove mudline debris: November to December 2019
- Demobilization and completion: December 2019

The Proposed Project is estimated to require the following equipment:

<b>Type and Use</b>	<b>Quantity</b>
100-ton Derrick Barge - to lift and remove the heavy debris (e.g., concrete dolphin and large timber deck sections) and stack the debris on a debris barge.	1
30-ton Derrick Barge - to remove the timber piles, fender system, and other miscellaneous light debris. Provide crane support during pile removal.	1
Debris Barges - to receive the deconstruction debris and later transport the debris to the debris-handling site.	4
Skiffs - to provide water access to the barges, maintain the floating debris boom, and to be used in the event of a "man-overboard" situation.	3
Tug boat - to move barges around the site and provide support to swap a full-debris barge with an empty-debris barge.	1
Excavator with shear attachment - to cut piles below the mudline.	1
Loader/Excavator - to deconstruct and load the building frame and contents.	1
Diesel Generator - to provide power to various electrical tools.	2
Chainsaw - to make cuts in the timber structures, as needed, to accommodate the deconstruction activities.	5
Divers and Diver Support Equipment - during the mudline debris removal phase; the divers may be required to rig into debris sitting on the bottom.	1

## 2.4 Staging and Debris Disposal

Staging would occur on the Mainland Parcels and in the slough on barges adjacent to the terminal (refer to Figure 2). Debris from the building demolition would be transported directly from the site to the Altamont Landfill via semi-trucks. Marine-based deconstruction material/debris would be placed onto debris barges and transported to the marine contractor's yard for sorting. Materials would be placed into debris bins that are provided by Tesoro's Waste Management Department.

Debris bins would then be transported from the marine contractor's yard to the appropriate landfill via semi-truck.

An estimated total of 3,900 cubic yards (CY) of timber and 350 CY of deconstruction materials/maintenance debris would require disposal, and 500 CY would be recycled. The debris bins would be transported to landfills suitable for the material type, as follows:

- Timber: Altamont Landfill in Livermore, CA
- Construction materials/maintenance debris: Plant Reclamation in Richmond, CA
- Trash debris: Keller Canyon in Pittsburg, CA
- Concrete/asphalt recycling: Diablo Valley Rock in Martinez, CA
- Metals recycling: Alco Iron & Metal Company in Vallejo, CA

Portable, self-contained sanitary facilities that are maintained by a licensed contractor would be utilized during deconstruction. Sanitary facilities would be installed on barges for use by marine contractor personnel and on land in the staging areas for use by Tesoro and land-based contractors responsible for the building-removal scope.

## **2.5 Deconstruction**

### **2.5.1 Terminal Platform**

Removal of the main platform would be executed in a manner that minimizes the amount of deconstruction required at the site. Platform deconstruction would begin with removal of all above-deck appurtenances, including steel deck plates, posts, fencing, cables, piping, conduits, handrails, and benches. Materials would be placed onto barges or into Tesoro-provided debris bins located on barges. Debris booms would be deployed prior to deconstruction of the platform structure. Personnel on barges and skiffs would monitor the debris booms, and any captured debris would be removed and placed into the appropriate debris bins.

Following the removal of all above-deck appurtenances, the main platform that includes the paved surfaces and the underlying timber structure would be removed using two methods: The first method would involve removal of large, intact sections of the platform. This method would minimize the amount of cutting and breakdown required at the site. The second method would involve the removal of the paved asphalt surfaces, followed by removal of smaller sections and/or individual components of the timber structure. Removal of the main platform in large sections would be the preferred method, and would be implemented to the extent practical. The second method may be required in areas where the timber structure is in poor condition and could be unstable if lifted in large sections, or where other conditions make the removal of large sections unsafe or impractical to perform.

### **2.5.2 Fender System**

Deconstruction of the fender system would begin by unbolting and cutting the fender springs. A derrick barge would support the weight of the piles and timber waler section being removed using appropriate rigging. The fender pile tips and walers would be placed onto barges for transport to the marine contractor yard. All further breakdown required would be performed at the marine

contractor yard where the timber and steel materials would then be loaded into Tesoro-provided debris bins and transported to appropriate disposal sites. Removal of the fender system may be done prior to or in conjunction with the main platform removal.

### 2.5.3 Dolphins and Walkways

The removal of the concrete dolphin W-1 platform would require a temporary wooden containment structure to be constructed underneath the concrete platform. The containment structure would be supported by the existing concrete piles, extend beyond the concrete platform footprint, and would be tightly formed around the concrete piles to contain debris from the demolition process. A derrick barge would support the weight of the platform using appropriate rigging attached to lifting bolts inserted through drilled holes secured to backing plates underneath the platform. A barge-mounted excavator with a shear attachment would be used to cut the concrete piles that support the platform. Once detached, the platform would be lifted and placed onto a barge, then transported to the marine contractor yard for further breakdown and disposal. Deconstruction debris would be collected and placed onto a barge prior to removal of the wooden containment structure.

The removal of the timber dolphins W-2, W-3, E-1, and E-2 would involve the use of a derrick barge and appropriate rigging system to support the weight of the entire platform. The timber piles would be cut with chainsaws and/or hydraulic shears. Once detached, the intact platform would be placed onto a barge and transported to the marine contractor yard for further breakdown. Chainsaws would be used to cut timber piles into approximately 18-foot-long or shorter sections, with bulkier structures cut down into much shorter sections that fit into 20-yard debris bins and can be easily dumped at the final landfill destination. An excavator is typically used to load materials into the debris bins. Semi-trucks would be utilized to transport the debris bins from the contractor yard to the final disposal sites.

Walkway deconstruction would be accomplished in a similar manner to that of the main platform, with larger cross-sections being removed where possible. The two-pile bents that support the walkways are spaced approximately 20 feet apart with stringer beams connected to the pile caps with drift pins. The walkways would likely be removed in 20-foot sections and placed onto barges for transport to the marine contractor yard. All further breakdown required would be performed at the marine contractor yard where the timber and steel materials would be loaded into Tesoro-provided debris bins and transported to appropriate disposal sites via semi-trucks.

### 2.5.4 Pile Removal

The general practice in the San Francisco Bay Area is for removal of piles to at least 3 feet below the mudline. This practice is appropriate in areas where scour is not expected to occur and is sufficient to ensure that the pile stubs remain buried within the sediments and do not have the potential to protrude above the sea floor, posing a potential hazard to navigation.

A multi-beam bathymetric and obstruction survey of the site was conducted in August 2018 to provide water-depth data for the site and surrounding areas. The pre-deconstruction survey provided initial indications of potential debris located on the bay floor. The multi-beam bathymetric

and obstruction survey did not indicate scouring occurring along the north side of the terminal. Water depth along the north side of the terminal is between 33 and 38 feet, referenced to mean lower low water (average height of the lowest tide recorded at a tide station).

Readings in the areas adjacent to the terminal indicate sediment deposition occurring over time; in particular in the area west of the terminal that has docking facilities associated with a residential area. Given this understanding of the current conditions, Tesoro plans to remove piles during deconstruction of the Pittsburg terminal to the standard depth of a minimum of 3 feet below the current mudline. Without maintenance dredging, pile stubs are anticipated to remain below the mudline. A follow-up and post-deconstruction multi-beam survey would be conducted after all piles are removed, to more accurately identify obstructions at the site for removal, in addition to confirming completion of pile removal.

The steel piles at the site would be removed using a derrick barge and vibratory extractor. The intent would be to remove the entire pile; however, if this removal is not feasible, then the piles would be cut to a minimum of 3 feet below the mudline using an excavator with a hydraulic shear attachment.

The reinforced concrete piles would be removed using a derrick barge and excavator with a hydraulic shear attachment. Piles would be cut to a minimum of 3 feet below the mudline. While an attempt could be made to remove entire concrete piles using a derrick barge and a vibratory extractor, it is likely the piles would break apart during the extraction attempt, causing concrete debris to fall to the bay floor. As such, Tesoro does not plan to make any attempts to remove entire concrete piles.

The timber piles at the site would be removed using a combination of three methods, including: 1) using only a derrick barge to remove the entire pile; 2) using a derrick barge and vibratory hammer to remove the entire pile; or 3) using a derrick barge to break the pile off a minimum of 3 feet below the mudline.

Confirmation that all piles have been removed a minimum of 3 feet below the mudline would be attained by measuring the length between the mudline stain and the bottom of each pile that is brought to the surface. Each pile mudline stain would be photographed with a measuring stick used as reference and the depth of removal recorded.

All piles that are removed from the site would be placed onto barges and transported to the marine contractor yard for further breakdown and disposal. Final confirmation that all piles at the site have been removed would be provided by the post-demolition multi-beam survey.

### 2.5.5 Building

The building near the west approach onto the terminal platform, including miscellaneous contents, would be removed after abatement of all identified hazardous materials using appropriately qualified contractors is complete (e.g., potential asbestos-containing material). The four pipes that exit the building and are supported underneath the terminal west approach would be cut off even with the bulkhead that runs along the shoreline; the short section of piping that runs between the bulkhead and building foundation wall would be filled with concrete and capped. After the building

is removed, the area would be filled with suitable clean fill material and graded/compacted as needed to leave in a safe and free-draining condition.

## **2.6 Applicant-Proposed Measures**

In addition to any agency permit conditions that might be specified, Tesoro would require that contractors use various measures to minimize any environmental impacts. Specific measures would include the following:

1. Secondary containment would be provided for equipment or vehicles stored on the terminal to reduce potential for spills.
2. Fuel required to be stored onsite for use by construction equipment would have primary and secondary containment. Spills would be contained and properly disposed.
3. Vehicles and equipment would be properly maintained to reduce the potential for spills of petroleum-based or other hazardous products. Containment booms and sorbent materials would be available during the deconstruction and would be deployed immediately in the event of a spill to limit its spread.
4. If any materials or wastes are released to the bay, Project supervisors would immediately halt all work and use all available resources to assure containment and removal.
5. Equipment and barges must be equipped with precautionary safety and spill-containment equipment.
6. Best Management Practices (BMPs) would be employed to help prevent pollutants from entering the bay waters. Standard BMPs from the California Stormwater Quality Association (CASQA, 2014) would be implemented, as required, to minimize runoff and soil erosion, and to prevent stormwater and surface water contamination at the site. Applicable BMPs may include scheduling considerations (EC-1); preservation of existing vegetation (EC-2); stabilization of disturbed surfaces (EC-3 through EC-7); silt fencing (SE-1); straw bale barriers (SE-9); storm drain inlet protection (SE-10); spill prevention, control and cleanup (SC-10, SC-11); vehicle and equipment fueling (SC-20); waste handling and disposal (SC-34); tracking control (TC-1); and/or use of wind erosion control measures as applicable (WE-1). Employees, subcontractors, and vendors would be informed, educated, and trained to understand the applicable practices and procedures for the various deconstruction activities being performed.
7. Upon completion of the Project, equipment, materials, and waste would be safely demobilized from the Proposed Project area.



### 3.0 CEQA INITIAL STUDY CHECKLIST

1. **Project title:** Pittsburg Terminal Deconstruction Project
2. **Lead agency name and address:**  
City of Pittsburg  
65 Civic Avenue  
Pittsburg, CA 94565
3. **Contact person and phone number:**  
Jordan Davis, AICP  
Senior Planner  
(925) 252-4015  
jdavis@ci.pittsburg.ca.us
4. **Project location:**  
The site does not maintain a physical address, but is located approximately 600 feet north of the intersection of East 3rd and Harbor streets, northeast of downtown Pittsburg, California.
5. **Project sponsor's name and address:**  
Tesoro Refining and Marketing Company, LLC  
c/o Peter Carroll  
150 Solano Way  
Martinez, CA 94553
6. **General plan designation (existing):** Park, Marine Commercial
7. **Zoning (existing):** CW – Waterfront Commercial
8. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**  
A Project Description, including maps and a site plan, is included in Chapter 2 of this Initial Study.
9. **Surrounding land uses and setting (briefly describe the project's surroundings):** The Project site is located in a previously developed area in north Pittsburg along New York Slough, which connects the San Joaquin River to Suisun Bay and the Carquinez Strait. The Project site is surrounded by residential, industrial, and public uses.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)** San Francisco Bay Regional Water Quality Control Board, and the U.S. Army Corps of Engineers.
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** The City sent a letter to six tribes identified by the Native American Heritage Commission notifying them of the Proposed Project on November 9, 2018. Per Public Resources Code section 21080.3.1(d), a request for consultation must be submitted within 30 days of the receipt the letter. No requests for consultation were received.

### 3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. Check marks are indicated by the following symbol:

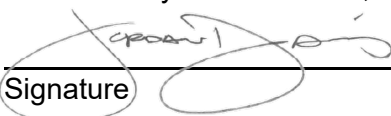
- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality                              |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources    | <input type="checkbox"/> Energy                                   |
| <input checked="" type="checkbox"/> Geology/Soils        | <input type="checkbox"/> Greenhouse Gas Emissions         | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality         | <input type="checkbox"/> Land Use/Planning                | <input type="checkbox"/> Mineral Resources                        |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population/Housing               | <input type="checkbox"/> Public Services                          |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation/Traffic           | <input type="checkbox"/> Tribal Cultural Resources                |
| <input type="checkbox"/> Utilities/Service Systems       | <input type="checkbox"/> Wildfire                         | <input type="checkbox"/> Mandatory Findings of Significance       |

### 3.2 Determination

(To be completed by the Lead Agency) On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Reviewed By: Jordan Davis, Senior Planner

  
 Signature

3/4/2019

Date

### 3.3 Evaluation of Impacts

#### I. Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The San Francisco Bay/Delta estuary system, including New York Slough, is considered a Scenic Waterway by Contra Costa County (County). However, a mix of land uses occurs along the waterway and surrounding the Project site, including industrial activities and residential development. According to the County's general plan, this diversity of land uses adds to the interest of the shoreline. Views of the Project site from New York Slough generally blend in with surrounding urban development. The Project involves demolition of the terminal and small building, and no construction would occur. Considering these factors, Project impacts on a scenic vista would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The closest officially designated State scenic highway to the Project is Interstate 680 (I-680), which is located approximately 15 miles southwest of the site. The Project site is not visible from I-680. There are no rock outcroppings, historic buildings, scenic tree stands, or other scenic resources on the Project site. Therefore, the Proposed Project would not affect scenic resources within view of a State scenic highway, and there would be no impact.

c) Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Proposed Project is located in an urban waterfront area that has been previously developed, and views of the Project site from New York Slough generally blend in with surrounding urban development. Development of the Proposed Project would change the existing visual character of the Project site and vicinity by removing the

existing terminal and associated facilities, including a small building located on the west side of the terminal platform. Deconstruction would require placement of a temporary containment structure and barges extending beyond the existing Project footprint; however, no new permanent buildings or structures are associated with the Project and Project improvements would be consistent with the visual character of the waterfront. Therefore, the Proposed Project would not degrade the existing visual character or quality of the Project site and its surroundings, and would not conflict with applicable zoning and other regulations, and this impact would be less than significant.

<p><b>d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project is located in a developed area, and existing exterior lighting within the vicinity of the Project consists of security lighting and intermittent lighting from surrounding industrial uses. Project deconstruction and equipment staging would take place on the existing terminal site. The nearest residential uses are approximately 100 feet to the west of the site. Project deconstruction work would occur during daylight hours only. The Project would not create a new source of light or glare affecting day or nighttime views. Therefore, no impact would occur.

## II. Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><b>a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The previously developed Project site is located in an urbanized area of the City. No farmlands occur in the vicinity of the Proposed Project, so no farmlands would be affected by the Project.

<b>b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** No lands zoned for agriculture occur in the vicinity of the Project site so no lands zoned for agriculture or under a Williamson Act contract would be affected by the Project.

<b>c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<b>d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project area is within a previously developed area and the Project site is zoned Commercial Waterfront on the City’s zoning map (City of Pittsburg, 2010). The Project would not conflict with the existing zoning for, or cause rezoning of, forest land or conversion of forest land to non-forest uses. Therefore, the Proposed Project would have no impact.

<b>e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** No lands zoned for agriculture or forest land occur in the vicinity of the Project so no lands would be converted from such uses. The Proposed Project would not adversely affect agricultural or forestry resources.

### III. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) <b>Would the project conflict with or obstruct implementation of the applicable air quality plan?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The Proposed Project would not conflict with or obstruct implementation of any applicable air quality plan. The Project would be located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The Project involves the demolition of existing structures, and does not include the construction of new structures or promote future development. Once deconstruction activities are complete, no long-term operational emissions would occur as a result of the Project. Deconstruction activities would result in dust and combustion-related emissions. The average daily emissions for a range of pollutants for off- and on-road vehicles were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, and watercraft (tug boat, work boats) emissions were calculated using emissions factors obtained from California Air Resources Board (CARB) guidance (CARB, 2012). The unmitigated average daily Project construction emissions, along with BAAQMD significance thresholds for construction activities, are provided in the table below. Project deconstruction emissions calculations and CalEEMod output files are included in Appendix A.

		Project Total Emissions (Tons)	Average Daily Threshold (Lbs)	Threshold Exceeded?
Reactive Organic Gases	45.09	2.75	54	No
Nitrogen Oxides (NOx)	6.69	0.41	54	No
Particulates (PM <sub>10</sub> )	3.00	0.18	82	No
Particulates (PM <sub>2.5</sub> )	1.83	0.11	54	No
Source: BAAQMD, 2017 lbs pounds PM <sub>10</sub> particulate matter less than 10 microns in diameter PM <sub>2.5</sub> particulate matter less than 2.5 microns in diameter				

The Project consists of deconstruction activities on the terminal and in the water, demolition of a small building located near the terminal platform, and transportation of demolition debris to off-site disposal locations. Vessels and staging areas would be located strategically within and along the site to accommodate the required deconstruction activities. The Project would not include significant soil handling or grading. Deconstruction activities that have been included in the emission calculations are land-based and water-based demolition activities, barge operations and barge transport using a tug boat, small work skiffs supporting water-based activities, demolition debris handling, debris transportation to several disposal facilities located within the San Francisco Bay Area, and worker commutes. These deconstruction activities result in combustion and fugitive dust emissions. The estimated average daily construction emissions are

below applicable construction-related significance thresholds established by the BAAQMD. Therefore, impacts would be less than significant.

<b>b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard. The Project is located in an area that is State and/or federal nonattainment for ozone and fine particulate matter (PM2.5) and State nonattainment for coarse particulate matter (PM10). The BAAQMD’s significance thresholds for construction emissions were designed to establish the level at which the BAAQMD believes emissions could cause significant environmental impacts under CEQA when considered in conjunction with other sources. The Project would not exceed BAAQMD construction-related significance thresholds. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant, and the impact would be less than significant.

<b>c) Would the project expose sensitive receptors to substantial pollutant concentrations?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project would not expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are land uses that include members of the population that are particularly sensitive to the effects of air pollution, such as children and the elderly, and people with illnesses. Examples include residences, hospitals, schools, or convalescent homes. The nearest sensitive receptors are residences located adjacent to the site to the west. The Project would result in short-term emissions, which would occur at a variety of locations within the Project area. Deconstruction emissions would be less than significant as described in the response to checklist item (a), above. Therefore, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

<b>d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** No significant Project-related sources of emissions would exist during construction. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions, none of which will be present in nuisance quantities during Project deconstruction. An additional potential source of Project-related odor is diesel engine emissions. However, all potential sources of odors would be short term and occur in a variety of locations across the Project area. There are relatively few people (less than 50 residences within 500 feet) near the Project site. Therefore, impacts related to odor generated during deconstruction of the Project would be less than significant.

#### IV. Biological Resources

Information used in this section is drawn from a Biological Assessment prepared by LSA Associates in November 2018 (see Appendix B) and the Biological Constraints Analysis and Wetland Assessment prepared by WRA Environmental Consultants in June 2018 for the Making Waves Academy Pittsburg Project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact with Mitigation Incorporated:** The Project area consists of the marine structure, open water, and a small area of shoreline hardened with riprap and wood debris located along the south bank of New York Slough within Suisun Bay. The shoreline is sparsely vegetated with ruderal non-native species and bulrush (*Schenoplectus* sp.), and several non-native trees are scattered along the shoreline above the tidal zone. The terrestrial area of the Project consists of a building and paved areas.

Tidal/brackish marsh habitat is absent from the Project area. Therefore, coastal marsh species, including special-status plants, are not expected to be present in the Project area or affected by the Project.

The following special-status species with the potential to occur within the Project area and potential to be affected by the Proposed Project are shown in the table below.

Species	Listing Status <sup>1</sup>	Habitat Association	Potential for Occurrence
<b>Fish</b>			
Delta smelt <i>Hypomesus transpacificus</i>	SE, FT, CH	Tolerant of a wide range of salinity. Shortly before spawning, adults migrate upstream from the brackish-water habitat associated with the entrapment zone and disperse widely into river channels and tidally influenced backwater sloughs. Spawn in shallow, fresh, or slightly brackish water upstream of the entrapment zone.	High. Abundance and possibly distribution dependent on location of available brackish water habitat. Potential to rear and forage near dock. Adults migrate past dock in December.



Species	Listing Status <sup>1</sup>	Habitat Association	Potential for Occurrence
Longfin smelt <i>Spirinchus thaleichthys</i>	ST, SSC	Anadromous, estuarine fish. Tolerant of a wide range of salinity. Migrate daily, low in water column at day and surface at night. Live 8 to 10 years. Feed on shrimp, copepods, and crustaceans. Spawn and die in freshwater.	High. Most likely to occur near dock October to November as adults migrate upstream to spawn.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	SSC	Sacramento/San Joaquin estuary. Found in slow-moving sections of rivers and sloughs and have been most abundant in the Suisun Bay and Marsh region. Splittail spawn on submerged vegetation in temporarily flooded upland and riparian habitat.	High. Dock is within the migratory corridor for this species. Adults migrate downstream past the dock in June-July. Young-of-year migrate downstream June to August. Adult splittail migrate upstream past dock starting in November.
Central Valley steelhead <i>Oncorhynchus mykiss irideus</i>	FT	Anadromous species. Migrate up Sacramento/San Joaquin rivers and tributaries for spawning in the spring. Most juvenile steelhead spend one to two years rearing in their natal stream before outmigrating.	High. New York Slough is a migratory channel. Juvenile downstream migration past dock begins in October. Adult spawning migrations begin in July and continue in waves through the winter.
Central Valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	ST, FT	Anadromous species. Migrate up Sacramento/San Joaquin rivers and tributaries for spawning at two to four years. Juveniles stay in freshwater for a few months before outmigrating.	High. New York Slough is a migratory channel. Juvenile downstream migration past dock begins in October with first winter storms. Adult migration occurs in spring.
Winter-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	SE, FE, CH	Anadromous species. Migrate up Sacramento/San Joaquin rivers and tributaries for spawning at two to seven years. Juveniles stay in freshwater for 5 to 10 months before outmigrating.	High. New York Slough is a migratory channel. Juvenile downstream migration enters the Delta from January to April. Adult spawning migration is from January to May.
Central Valley fall/late fall-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FSC, SSC	Anadromous species. Migrate up Sacramento/San Joaquin rivers and tributaries for spawning at two to six years. Juveniles stay in freshwater for a few days up to a few months, but begin their downstream movement within a few weeks of emergence from the gravels.	High. New York Slough is a migratory channel. Juvenile downstream migration past dock may occur during all months of the year. Adult spawning migration September to December. Juveniles rear in the estuary.
Green sturgeon <i>Acipenser medirostris</i>	FT, SSC	Bay species, long-lived, found in brackish water, benthic feeder. Anadromous. Spawns in Sacramento River.	High. Likely occur in Project area as Suisun Bay/New York Slough contain suitable foraging and holding habitat.

Species	Listing Status <sup>1</sup>	Habitat Association	Potential for Occurrence
			Migrate past dock to spawn in winter.
Starry flounder <i>Platichthys stellatu</i>	EFH	Estuarine fish, benthic feeder on macrophytes, including shrimp, crabs, polychaete worms. Mature at age two. Spawn September to March along marine shores or estuary mouth. Eggs settle to bottom of water column. Rears in warm, nearly fresh, water.	High. Potential to be impacted. Common species that is common in brackish waters. Juveniles and adults are demersal benthic feeders over soft bottom substrate.
<b>Reptiles</b>			
Western pond turtle <i>Emys marmorata</i>	SSC	Found in rivers, streams, lakes, ponds, wetlands, reservoirs, and brackish estuarine waters from sea level to 6,500 feet. Prefers habitats with large areas for cover and basking sites. Overwinters in both aquatic and terrestrial habitats.	Moderate. The Project area is located within the species' year-round range and core habitat is modeled along the shoreline in the East Contra Costa County Habitat Conservation Plan/ Natural Communities Conservation Plan.
<b>Birds</b>			
Burrowing owl <i>Athene cunicularia</i>	BCC, CSC	Inhabits open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; nests underground, usually in abandoned California ground squirrel ( <i>Spermophilus beecheyi</i> ) burrows.	Moderate. Adjacent grasslands contain potentially suitable small-mammal burrows for nesting and species is modeled to occur.
White-tailed kite <i>Elanus leucurus</i>	SFP	Breeds in savannas, riparian woodlands, grassy foothills. Resident species.	Moderate. May forage in grasslands adjacent to the Project. No nesting habitat in Project area.
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	SSC-3	California endemic, year-round range consists of tidal salt and brackish marshes associated with Carquinez Strait and Suisun Bay west of the City of Antioch. Dense vegetation required for nesting, perching, and cover from predators. Primarily use tidal channels; small territories and limited dispersal of young constrain species distribution. Requires exposed ground for foraging on seeds.	Moderate. Potential to nest along levee south of dock.
Saltmarsh common yellowthroat	BCC, SSC	Nests in freshwater marshes March to July. Disperses into adjacent saltwater marshes to forage in winter.	Moderate. Potential to nest along levee south of dock.

Species	Listing Status <sup>1</sup>	Habitat Association	Potential for Occurrence
<i>Geothlypis trichas sinuosa</i>		Insectivore. Small territories, displays high site fidelity.	
<b>Marine Mammals</b>			
Harbor seal <i>Phoca vitulina richardii</i>	MMPA	Temperate coastal habitats where it uses rocks, reefs, and beaches for haul out.	Moderate. Individuals may forage in the Project vicinity or rest on the dock.
California sea lion <i>Zalophus californianus</i>	MMPA	Shallow coastal and estuarine waters. Hauls out on marina docks, jetties, and buoys.	Moderate. Individuals may forage in the Project vicinity or rest on the dock.
<p><sup>1</sup> <b>Federal Listing Status</b> FE: Federally listed endangered; FT: Federally listed threatened; FSC: National Marine Fisheries Service Federal species of concern; BCC: Federally Listed Birds of Conservation Concern; CH: Critical habitat designated; EFH: NOAA-Fisheries Essential Fish Habitat species; MMPA: Marine Migratory Protection Act. <b>State Listing Status</b> SFP: State fully protected; SE: State-listed endangered; ST: State-listed threatened; SSC: California species of special concern. The SSCs may be further ranked by priority: SSC-1: priority one, etc.</p> <p>Sources: CNDDDB, 2018; LSA, 2018a; TRC, 2013; WRA, 2018</p>			

In addition, designated critical habitat for delta smelt, Central Valley steelhead DPS, Sacramento winter-run Chinook salmon ESU, and Central Valley spring-run Chinook salmon ESU is located in the Project area.

Special-status fish and marine mammals may be present in the waters of New York Slough and could be adversely affected by impacts to water quality, including increases to turbidity and potential leaks or spills from equipment. Because the waters of New York Slough and nearby Suisun Bay are already subject to turbidity during storm events, the temporary, short-term increase in turbidity and sedimentation from construction would be quickly diluted to background levels, and therefore, inconsequential to aquatic wildlife. Impacts to water quality from potential leaks or spills would be less than significant with implementation of BMPs listed in Section X, “Hydrology and Water Quality,” and Conservation Measures in sections 2.2.1.2 Spills and Accidental Discharge, 2.2.1.3 Emergency Spill and Containment Plan, and 2.2.1.4 General Work Site Management Practices of the Project’s Biological Assessment (LSA, 2018a). Marine mammals are expected to avoid the area while deconstruction is active, but may approach the site after work stops for the day. Measures in the Project’s Biological Assessment that require the workplace to be kept clean and safe for wildlife are found in section 2.2.1.4, measures 10 through 12. With implementation of mitigation measure (MM) BIO-1, workers would be provided training to ensure work is conducted safely for special-status species. With implementation of MM BIO-2, Tesoro would implement the measures proposed in the Project’s Biological Assessment.

**MM BIO-1:** A qualified biologist shall prepare a Work Environmental Awareness Program (WEAP) to provide environmental training for construction personnel, including contractors, prior to the commencement of construction activities. The training shall include specific measures to prevent injury to special-status species and information about what to do if one is found in the construction area. The program shall also provide workers with information on their responsibilities with regard to special-status species, an overview of the life history of the species, information on take prohibitions, protections afforded the species under the state and federal regulations, and an explanation of the relevant terms and conditions of the incidental take permit. Training material shall be

submitted to the City of Pittsburg for review two weeks prior to construction. Proof of training in the form of sign-in sheets shall be submitted to the City of Pittsburg within 48 hours of each training conducted under the WEAP.

**MM BIO-2:** Tesoro shall implement the recommendations of the Biological Assessment (LSA, 2018a) in the final construction plan.

In-water work activities that occur during migratory periods could cause special-status fish to avoid the vicinity of the dock and potentially result in fish rerouting into less-desirable corridors. With implementation of MM BIO-3, work would be restricted to work windows that avoid potential impacts to migrating fish and this impact would be reduced to less than significant.

**MM BIO-3:** In-water deconstruction activities shall occur during the work window specified by the National Marine Fisheries Service (NMFS) for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, from June 1 to November 30. The work window proposed may be adjusted in coordination with the California Department of Fish and Wildlife, NMFS, and U.S. Fish and Wildlife Service (USFWS).

In-water work activities that occur overnight or at sunrise or sunset have potential to disturb fish when they are actively foraging or moving past the dock. In addition, use of lights to illuminate work areas overnight can attract special-status species into the Project area where they may be harmed. With implementation of MM BIO-4, work would be restricted to daytime hours, the use of nighttime lighting would be restricted, and this impact would be reduced to less than significant.

**MM BIO-4:** All work shall be conducted during daylight hours and no artificial illumination shall be used. Daylight hours shall be considered to last from 30 minutes after sunrise to 30 minutes before sunset.

Construction noise and vibration from in-water work, including pile removal, could adversely impact special-status fish. In addition, direct pull to remove piles may cause a sediment plume containing contaminants deleterious to aquatic species or break creosote-coated timber piling, leaving stubs left in the mud that can release harmful contaminants into the water column. Implementation of MM BIO-5 would reduce these impacts to less than significant.

**MM BIO-5:**

1. Piles shall be removed slowly to allow sediment to slough off at or near the mudline and minimize turbidity in the water column. The operator shall first vibrate each pile to break the bond between the sediment and pile to minimize the potential for the pile to break, as well as reduce the amount of sediment sloughing off the pile during removal.
2. All removed creosote-treated timber, concrete, and steel piles and timber deck planks shall be transported on barges to a marine contractor yard.

Demolition of structures could destroy active bird nests, if present, and deconstruction noise may also disturb nesting birds. Although unlikely to nest in the Project area, burrowing owl may forage or nest in adjacent grasslands and Suisun song sparrow may forage or nest in adjacent marshes. White-tailed kite and loggerhead shrike may also forage in the adjacent grasslands, as well as other birds protected under the Migratory Bird Treaty Act and California Fish and Game Code 3501. Implementation of MM BIO-6 would reduce potential impacts to nesting birds to a less-than-significant level by requiring preconstruction surveys and appropriate avoidance measures.

**MM BIO-6:** If construction activities are initiated during the nesting season (February 1 through August 31), a qualified biologist shall conduct a nesting bird survey no more than 14 days prior to the start of construction activities. If construction activities cease for

more than 14 days, the survey shall be repeated. If active nests are identified, a no-disturbance buffer shall be implemented, under the guidance of the qualified biologist, to avoid impacts to nesting birds. Buffer distances for bird nests shall be site specific and an appropriate distance, as determined by the biologist. The buffer distances shall be specified to protect the bird's normal behavior to prevent nesting failure or abandonment. The buffer distance recommendation shall be developed after field investigations that evaluate the bird(s) apparent distress in the presence of people or equipment at various distances. Abnormal nesting behaviors that may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed toward Project personnel, standing up from a brooding position, and/or flying away from the nest. The biologist shall have the authority to stop Project activities if a bird exhibits abnormal behavior that may cause reproductive failure such as nest abandonment and loss of eggs and/or young until an appropriate buffer is established.

**b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?**

**Less Than Significant Impact with Mitigation Incorporated:** Sensitive natural communities present within the Project area are limited to aquatic habitats. No riparian habitat or other upland sensitive natural communities would be affected by the Proposed Project. The waters of Suisun Bay and New York Slough have been designated by the NMFS as essential fish habitat for Pacific Coast Groundfish and Pacific Salmon, and as critical habitat for delta smelt, Central Valley steelhead DPS, Sacramento winter-run Chinook salmon ESU, and Central Valley spring-run Chinook salmon ESU by the USFWS.

Potential construction impacts to aquatic habitats, including turbidity and underwater noise effects, would be short term and less than significant with implementation of MM BIO-2, MM BIO-5, and BMPs listed in Section X, "Hydrology and Water Quality," as described under the response to checklist item (a). Additionally, removal of dock structures would have a beneficial effect on open water habitat by removing creosote-treated timber piles and shade from approximately 1.1 acres of Suisun Bay. Therefore, impacts from deconstruction of the Proposed Project on sensitive natural communities would be less than significant with implementation of mitigation.

**c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact:** There are no wetlands located within or adjacent to the Project site or the potential onshore staging area; therefore, the Proposed Project would have no impact to wetlands.

**d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less Than Significant Impact with Mitigation Incorporated:** Adult and juvenile anadromous fish migrate between freshwater sources to the Pacific Ocean through Suisun Bay and New York Slough. The open estuarine waters of the Delta provide important nursery and foraging habitat for anadromous fish, resident and migratory birds, and marine mammals. As discussed in the response to checklist item (a), in- and over-water deconstruction activities required to remove terminal platforms and supporting piles would be temporary and limited in area. Use of the staging area would be confined to disturbed or paved areas. With implementation of MM BIO-3, MM BIO-4, and MM BIO-6, the Proposed Project would not interfere with movement of any native resident or migratory fish or wildlife species, or impede on nursely sites, and the impact would be less than significant.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**Less Than Significant Impact:** The City of Pittsburg General Plan Open Space Element contains the following policy related to biological resources in the Project area:

9-P-13. Ensure that special-status species and sensitive habitat areas are preserved, as required by State and federal agencies, during redevelopment and intensification of industrial properties along the Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.

As described in the response to checklist items (a) and (b), implementation of MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-5, and MM BIO-6 would ensure that special-status species and sensitive aquatic habitats are preserved. In addition, the removal of approximately 1.1 acres of terminal platform and creosote-timber piles from lower New York Slough would enhance aquatic habitat by reducing shade over open water and a source of potential water contamination.

The Project does not require the removal of any trees. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources.

**f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact:** The terrestrial portions of the Project would have no impact related to the adopted East Contra Costa County Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan because the Project site is identified as "urban" within the HCP. Pursuant to Pittsburg Municipal Code (PMC) section 15.108.030, areas mapped as "urban" are not subject to required

take coverage. The Project would not conflict with the provisions of an adopted or approved conservation plan.

**V. Cultural Resources**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) <b>Would the project cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** A cultural resource records search was conducted through the California Historical Resources Information System (CHRIS) Northwest Information Center (NWIC) on November 30, 2018 (NWIC File No. 18-1005). The search revealed that the Project footprint lies well outside the ground coverage of several nearby surveys (S-9095, -24753, -024289, -7647, -18352, -46909, -32572, -10040, -34182, -30579, -24322, and -34957) within a 0.5-mile radius. In addition, the Project footprint lies well outside the mapped boundaries of several nearby cultural resources (P-07-761 – the Pacific Coast Stone Company Site/CA-CCO-715H; P-07-864 – the Former Redwood Manufacturers Co. facility; P-07-869 - Diablo Services Corporation/Ultramar Corporation building; P-07-1093 - the California Theatre; P-07-1114 - New York Landing – Pittsburg Historic District; and P-07-1118 – the Sacramento Northern Railroad Depot) within a 0.5-mile radius. No resources are recorded within the Project area. No survey reports are within the Project area.

The Project area lies mostly over open water with only two places where the dock abuts dry land, and the small building located directly adjacent to the westernmost of these points. Although the Project area is not included in previous surveys, these previous surveys reveal a consistent lack of archaeological resources, likely due to the developmental history of the area. The Project area and its immediate vicinity have been subject to multiple episodes of commercial and industrial construction and demolition. Native ground surfaces are obscured by fill, asphalt, or buildings. For these reasons, no pedestrian field survey of the Project area has been attempted.

Not on file at the NWIC is a 2012 Historic Architecture Evaluation Report by Mr. Ward Hill (Consulting Architectural Historian). This report was made available by Tesoro and the City of Pittsburg. In his summary of findings, Hill (2012) states the buildings and other features at the former Tesoro Pittsburg Terminal/Diablo Coke Plant associated with the California Bean Growers Warehouse Corporation and the United States Army Camp Stoneman are not eligible for the California Register of Historical Resources (CRHR) because their historic integrity has been compromised. The modern structure related to the former petroleum coke operation – the conveyors, loading facilities, storage yards, and alterations to the dock to be demolished by Tesoro – are less than 50 years old and not of historic significance, and are not eligible for the CRHR.

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the CRHR), it generally must be 50 years or older. Under CEQA, historical resources can include precontact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts.

Based on the significance criterion noted above, the Project would have a significant impact on the environment **if** ground-disturbing activities **or** removal of a historically significant building(s) would cause a substantial adverse change in the significance of a historical resource. A substantial adverse change in the significance of a historical resource would occur from demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines section 15064.5(b)(1)).

The dock is not eligible for the CRHR and its removal would not cause a substantial adverse change in the significance of a historical resource.

A search of the Native American Heritage Commission (NAHC) Sacred Lands File was requested by the City of Pittsburg. The Sacred Lands File search was negative – no known Native American cultural resources are present in the Project area. Per NAHC recommendations, the City of Pittsburg wrote to the following individuals and/or groups to solicit information in “AB 52” letters dated November 9, 2018: Irene Zweirlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista, Ann Marie Sayers of the Indian Canyon Mutsun Band of Costanoan, Rosemary Cambra of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Andrew Galvan of The Ohlone Indian Tribe, Raymond Hitchcock of the Wilton Rancheria, and Katherine Erolinda Perez of the North Valley Yokuts Tribe. As of December 4, 2018, the City had received no replies to its letters.

<b>b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact with Mitigation Incorporated:** No known/recorded archaeological resources are present in the Project area. The NWIC search checked for known/recorded shipwrecks in the Project area; none are known to be present. It is possible that historic-period artifacts may be present as a result of past dumping or discard off the original dock – remains dating from WWII or earlier. It is unlikely, however, that such remains would be detected when the pilings are extracted from the water during demolition of the dock. It is also possible that pre-contact artifacts or cultural deposits are present beneath the shore immediately adjacent to the dock, or below the sediments just offshore (i.e., beneath the dock area). It is also unlikely that such remains would be detected when pilings are extracted from the water during dock demolition. In the unlikely event that precontact or historic period cultural remains are found during dock demolition, the find(s) would need to be evaluated by an archaeologist to determine if they qualify as historical resources under CEQA. Per the Guidelines section 15064.5 of CEQA, implementation of the following mitigation measure would reduce the potential impact on historical and archaeological resources to a less-than-significant level.

**MM CUL-1:** Deconstruction shift foremen, demolition equipment operators, and other workers with responsibility for observing excavations and pilings extractions shall be trained and instructed by a qualified cultural resource specialist to be observant for the potential occurrence of archaeological resources. The qualified cultural resource specialist shall be instructed and authorized to halt operations in the area immediately and notify the City’s representative if such resources are discovered. In the event of a discovery, the qualified cultural resource specialist shall promptly notify the City and work in the area shall cease until the discovery is evaluated by a qualified cultural resource specialist.

If evaluation by a qualified cultural resource specialist indicates that the discovery may be significant, then operations in the area shall be continued only as directed by a qualified cultural resources specialist and in a manner allowing for collection of



significant resources and information that may otherwise be affected by the Project, including development of a Research Design and Data Recovery Program if needed to mitigate impacts.

If archaeological deposits are found to be significant (i.e., eligible for listing in the CRHR), Tesoro shall be responsible for funding and implementing appropriate mitigation measures. Such measures may include recordation of the archaeological deposit(s), data recovery and analysis, and public outreach regarding the scientific and cultural importance of the discovery. If cultural artifacts are collected, they shall be cataloged and curated with an appropriate institution. A final monitoring report shall be prepared by Tesoro and submitted to the City, CHRIS NWIC, U.S. Army Corps of Engineers, and the NAHC if significant cultural resources are discovered.

<b>c) Would the project disturb any human remains, including those interred outside of formal cemeteries?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact with Mitigation Incorporated:** A cultural resources records search conducted through the CHRIS Northwest Information Center did not indicate any known burials within 0.5 mile of the Project area. A search of the NAHC Sacred Lands File failed to indicate the presence of Native American sacred lands in the area. Given that there are no records of Native American sacred lands in the area and no evidence of human remains at the Project site, and since the Project area has been so heavily disturbed, no impact to human remains is anticipated. Mitigation measure CUL-2 would ensure that impacts are mitigated to a less-than-significant level in the event that human remains are encountered unexpectedly during construction.

**MM CUL-2:** Deconstruction shift foremen, demolition equipment operators, and other workers with responsibility for observing excavations and pilings extractions shall be trained and instructed by a qualified cultural resource specialist to be observant for the potential occurrence of human remains. In the event that human remains are identified during dock demolition activities, these remains shall be treated in accordance with section 7050.5 of the California Health and Safety Code and section 5097.98 of the Public Resources Code, as appropriate.

**VI. Energy**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The Proposed Project does not involve development or operation. Energy use during deconstruction activities would be limited to the equipment listed

in Section 2.3 and would be short-term and temporary. Impacts due to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant.

<b>b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Proposed Project does not involve development, and energy use due to equipment, trucks, and barges during the deconstruction activities would be short term and temporary. The Project would not conflict with or obstruct a plan for renewable energy or energy efficiency. There would be no impact.

## VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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<b>a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</b>				
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1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Proposed Project is not located in an Alquist-Priolo Earthquake Fault Zone, and no known active faults exist at the Proposed Project area (California Department of Conservation, 2018). Therefore, there is no impact associated with fault rupture. The closest active fault is the Clayton section of the Clayton-Marsh Creek-Greenville Fault, located approximately 6 miles to the southwest (Jennings and Bryant, 2010).

2) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project area is located in a region defined by a number of fault zones associated with the San Andreas fault system, which marks the tectonic boundary between the North American and Pacific plates. As described above in the response to checklist item (a)(1), the closest active fault is the Clayton section of the Clayton-Marsh Creek-Greenville Fault, which is located approximately 6 miles southwest of the Project site. Other major regional faults include the Green Valley-Concord Fault (located approximately 9 miles southwest), Calaveras Fault (located approximately 15 miles southwest), Hayward-Rodgers Creek Fault zone (located approximately 22 miles southwest), and San Andreas Fault Zone (located approximately 40 miles southwest) (Jennings and Bryant, 2010). The possibility exists for ground shaking from an earthquake on any of these faults. However, because structures located on the

site are slated for demolition and there is no additional construction associated with the Project, the impact from strong seismic ground shaking would be less than significant.

3) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** Liquefaction is the transformation of saturated granular soils from a solid to liquefied state, caused by increased pore pressure and decreased effective stress usually induced by earthquakes. Areas susceptible to liquefaction can be determined based on characteristics such as soil type, soil density, and depth to groundwater. Liquefaction occurs in areas underlain by loose, saturated silt, sand, and/or gravel. Geology at the Project site consists of young, unconsolidated sediments, and depth to groundwater is relatively shallow. A study of the nine-county San Francisco Bay Area, conducted by the U.S. Geological Survey, identifies the Project area as highly susceptible to liquefaction (Knudsen et al., 2000). It should be noted that this was prepared as a regional study, and that the specific Project site has not been evaluated by the California Geological Survey for liquefaction hazards. However, as stated above in response to checklist item (a)(2), the Project does not involve development of any permanent structures, so this impact would be less than significant.

4) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project is located in a generally flat area, and there are no substantial slopes in the vicinity that would pose a landslide hazard.

b) Would the project result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project site includes previously developed structures such as the terminal platform, walkways, and decks. Because these structures are built at the edge of or over the water, deconstruction debris would be loaded onto barges for disposal, and therefore, would not result in substantial soil erosion. There may be a staging area on land for construction trailers and parking, and for additional breakdown of structures at the marine contractor yard, as well as the building that will be demolished, which have the potential for some soil erosion. After the building is removed, the area would be filled with suitable clean fill material and graded/compacted as needed to leave in a safe and free-draining condition.

Standard BMPs from the California Stormwater Quality Association (CASQA, 2014) would be implemented, as required, and as described in Section 2.6, to minimize soil erosion at the site. Applicable BMPs may include scheduling considerations (EC-1), preservation of existing vegetation (EC-2), stabilization of disturbed surfaces (EC-3 through EC-7), tracking control (TC-1), and/or use of wind erosion control measures as applicable (WE-1). Implementation of these or similar BMPs during the deconstruction work would limit substantial soil erosion at the site, so this impact is considered less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The potential for liquefaction in the Project area is discussed above in the response to checklist item (a)(3). The Project is located in a generally flat area, and there are no substantial slopes in the vicinity that would pose a landslide hazard, nor are there unsupported conditions susceptible to significant lateral spreading. There is no construction associated with the Project that would be affected by subsidence or soil collapse. Therefore, with the exception of susceptibility to liquefaction, the Project is not located on soil that is unstable or would become unstable as a result of the Project, so this impact would be less than significant.

<b>d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project does not include construction of any permanent buildings, so there would be no impact from expansive soil.

<b>e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project does not include use of a septic tank or other wastewater disposal.

<b>d) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact with Mitigation Incorporated:** Based on previous reports conducted within the immediate Project vicinity (cited in the August 2018 Initial Study for the Making Waves Academy Charter School Project, page 4-19), there is no documentation that suggests paleontological resources are present within the City or the Project vicinity. There is a possibility that subsurface demolition operations could uncover paleontological resources. Implementation of the following mitigation measure would ensure that potential impacts to paleontological resources would be reduced to a less-than-significant level.

**MM GEO-1:** Deconstruction shift foremen, demolition equipment operators, and other workers with responsibility for observing excavations and pilings extractions shall be trained and instructed by a qualified paleontologist to be observant for the potential occurrence of paleontological resources. The paleontologist shall be instructed and authorized to halt operations in the area immediately and notify the City’s representative if vertebrate fossils are discovered. In the event of a discovery, the paleontologist shall promptly notify the City and work in the area shall cease until the discovery is evaluated by the paleontologist.

If evaluation by a qualified paleontologist indicates that the discovery may be significant, then operations in the area shall be continued only as directed by the paleontologist and in a manner allowing for collection of significant resources and information that may otherwise be affected by the Project.

If the paleontological resources are found to be significant, adverse effects to such resources shall be avoided by Project activities to the extent feasible. If Project activities cannot avoid the resources, the adverse effects shall be mitigated in accordance with CEQA Guidelines section 15126.4(b)(3). Mitigation may include data recovery and analysis, preparation of a final report, and the formal transmission or delivery of any fossil material recovered to a paleontological repository, such as the University of California Museum of Paleontology. Upon completion of Project activities, the final report shall document methods and findings of the mitigation and be submitted to the City of Pittsburg, Contra Costa County, and a suitable paleontological repository.

### VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The Proposed Project would not generate significant greenhouse gas (GHG) emissions. Deconstruction activities would generate GHG emissions during the approximately nine-month deconstruction period. Following demolition, no long-term operational emissions would occur as a result of the Project. The Project GHG emissions resulting from off-road construction equipment, debris hauling, and worker commutes were evaluated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. GHG emissions resulting from watercraft (tug boat, work boats) were calculated using emissions factors obtained from CARB guidance. Total estimated GHG emissions associated with deconstruction activities are presented in the table below. Project deconstruction emissions calculations and CalEEMod output files are included in Appendix A.

Greenhouse Gas	Total Project Emissions (metric tons)
Carbon Dioxide (CO <sub>2</sub> )	405.19
Methane (CH <sub>4</sub> )	0.05
Nitrous Oxide (N <sub>2</sub> O)	0.00
Carbon Dioxide Equivalents (CO <sub>2</sub> e)	407.73
Notes: Global Warming Potentials (GWPs) were obtained from the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. GWPs used here do not include climate-carbon feedbacks.	

The BAAQMD does not have established significance thresholds for construction-related GHG emissions; however, they have established an operational-related GHG emission threshold of

10,000 metric tons per year of carbon dioxide equivalents for stationary sources (BAAQMD, 2017). GHG emissions related to the Project would be short-term and would be well below the operational threshold. Therefore, impacts would be less than significant.

<b>b) Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Proposed Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. The minimal, short-term deconstruction-related GHG emissions would not interfere with the long-term goal of Assembly Bill (AB) 32 to reduce GHG emissions to 1990 levels by 2020. Therefore, there would be no impact.

### IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Less than Significant Impact with Mitigation Incorporated:** The Proposed Project would require the short-term transport, use, and disposal of hazardous materials, such as fuels and lubricants. These materials would primarily be used in the operation of equipment. The storage and use of hazardous materials onsite during deconstruction could create a hazard to construction workers, the public, or the environment if such materials are not properly handled and/or contained. The Project would implement Applicant-Proposed Measures (APMs) 1 through 7, as described in Section 2.6. These APMs prescribe required hazardous materials handling, storage, spill response, and worker training practices that would be implemented during Proposed Project activities.

The Project includes removal of the vacant former pump-house building, located at the southwest end of the site (refer to Figure 2). Pumps are no longer present, and the building is empty. Based on initial observations of the building interior and exterior, the building could include some asbestos-containing materials (ACMs), which, if present, would require asbestos-containing precautions for removal, handling, and disposal (i.e., abatement) in accordance with regulatory requirements to prevent the release of asbestos to the environment and to protect workers in the abatement area. The creosote-treated piles would require handling and disposal in accordance with environmental protection and worker safety regulations, and other hazardous materials may be present that have not been identified. The removal and management of hazardous materials could create a significant hazard to workers, the public, or the environment if regulatory requirements for safety and containment are not followed. Mitigation Measure HAZ-1 would be implemented to ensure that impacts would remain less than significant by requiring an inspection

for ACMs prior to deconstruction of the building, and use of a qualified contractor for abatement, if needed.

**MM HAZ-1:** Prior to beginning deconstruction work, Tesoro shall commission a hazardous materials assessment of the site structures, to be prepared by a qualified hazardous materials professional. The results of the hazardous materials assessment shall be documented in a technical report. The technical report shall include a summary of hazardous and otherwise regulated building materials as well as reference to any applicable regulatory requirements, required abatement procedures, or restrictions. Removal of any hazardous materials found to be present shall be conducted in full compliance with applicable laws and regulations.

In addition to APMs 1 through 7 included as part of the Project, the Project would be required to comply with applicable regulatory requirements pertaining to the use, storage, and disposal of hazardous materials and wastes. These include, but are not limited to, Code of Federal Regulations Title 29 Section 1910 Occupational Safety and Health Administration regulations for worker protection and California Code of Regulations Title 22 Division 4.5 regulations for management of hazardous waste. Furthermore, the Project site would not be open to the public, thereby minimizing the potential for members of the public to come into contact with hazardous materials.

With these mitigation measures, APMs, and regulatory requirements in place, the routine use of hazardous materials for the Project would not create a significant hazard to the public or the environment. Therefore, impacts would be less than significant with mitigation.

<b>b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact with Mitigation Incorporated:** As discussed under the response to checklist item (a) above, the Project would involve the use, storage, transportation, and abatement of hazardous materials and wastes. Specifically, the Project would utilize common hazardous materials such as fuels and lubricants during the operation of equipment, and may encounter hazardous building materials during the deconstruction of structures. Hazardous materials could be accidentally released if an upset condition were to occur. Released materials could present a hazard to workers, the public, and/or environment. APMs 1 through 7 contain measures that either reduce the risk of upset or ensure timely response such that the adverse effects of a release would be minimized. Considering the precautionary and response preparedness measures in APMs 1 through 7, the Project would not present a significant hazard to the public or the environment through reasonably foreseeable upset conditions. Therefore, impacts would be less than significant with implementation of MM HAZ-1 and compliance with APMs and applicable regulatory requirements.

<b>c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact:** There are no schools located within 0.25 mile of the Project. Marina Vista Elementary School is the closest school to the Project site. It is located at 50 East 8th Street, approximately 2,600 feet southwest of the Project site. Therefore, a less than significant impact would occur in relation to this existing school.

The Making Waves Academy Charter School is proposed to be located adjacent to the Project. However, the Project would be completed prior to development of the Making Waves Academy. Therefore, no impacts would occur in relation to this proposed school.

<p><b>d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</b></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact with Mitigation Incorporated:** The two Mainland Parcels on which the Project is to take place are included in lists compiled pursuant to Government Code Section 65962.5. Specifically, Assessor’s Parcel No. (APN): 073-010-007 is listed on the California Department of Toxic Substances Control’s (DTSC) Envirostor database, and APN: 073-010-013 is listed on the State Water Resources Control Board’s (SWRCB) list of sites with active Cleanup and Abatement Orders. The disturbance of soil or groundwater impacted with hazardous materials or wastes could result in a release of hazardous materials into the environment, which could create a significant hazard to workers, the public, and/or the environment.

APN: 073-010-013 is listed on the SWRCB’s list of sites with active Cleanup and Abatement Orders. The listing is related to a Cleanup and Abatement Order issued by the San Francisco Bay Regional Water Quality Control Board in 1999 to address stormwater pollution from fugitive coke dust leaving the facility. The coke-loading facility ceased operation in 2010. At the time of facility closure, all industrial equipment and materials (hazardous and nonhazardous) were removed from the site and the former petroleum coke storage area was covered with an impervious liner and a 4-inch-thick layer of gravel was placed on top. The site grading was also inspected to confirm that no offsite drainage could occur. Even though the coke-loading facility has ceased operations, the regulatory case is listed as “Open – Eligible for Closure.” Use of the parcel is limited to staging and support on an existing asphalt area. The asphalt area would be used for parking, equipment and debris-container staging, portable sanitary facilities, and office trailers for work administration. Considering proposed uses of the existing paved area, and considering the coke-loading facility has been decommissioned, the listing on the SWRCB database does not represent a potential hazard to the public or the environment from the Project.

APN: 073-010-007 is listed on the DTSC’s Envirostor database related to a Voluntary Cleanup Program case being managed by the DTSC. The case status is currently listed as Certified/Operation and Maintenance as of November 11, 2009 (DTSC, 2018). APN: 073-010-007 was formerly used for storage of ACMs. As a result, ACMs were present within surface soils following closure of the facility. As part of the Voluntary Cleanup Agreement, the former parcel owner (Pittsburg River Park, LLC<sup>2</sup>) performed a site assessment and ultimately encased the ACM-contaminated soils under a soil cap. The parcel is subject to a Covenant to Restrict Use of Property to ensure that disturbance of the encapsulated ACM-contaminated soil does not occur in a manner that could be a significant hazard to workers, the public, or the environment. The

<sup>2</sup> Note that APN: 073-010-007 was purchased by Third Street Pittsburg, LLC in December 2017.



Covenant prohibits use of the parcel for residences, a hospital for humans, a school for persons under 21 years of age, a day care center, raising of food (cattle, crops), or drilling for drinking water, oil, gas, or extraction of groundwater for purposes other than site remediation or construction dewatering. In addition, the Covenant requires any activity that may disturb the cap to be approved in writing by the DTSC. The capped property extends south from the south side of the pump building proposed to be removed. Without proper precautions, ground disturbance in the capped area could result in unsafe exposure to ACMs. Mitigation Measure HAZ-2 would ensure that deconstruction activities would be consistent with the Covenant and safe practices to prevent exposure. Therefore, HAZ-2 would limit the hazard related to the ACM listing on the Envirostor database to a level that is less than significant.

**MM HAZ-2:** Prior to initiating any ground-disturbing activity on APN: 073-010-007, including, but not limited to clearing, scraping, digging, excavating, or the removal of the building footings or slab, Tesoro shall provide the City of Pittsburg’s City Engineer and Chief Building Official either: (1) a work plan for building demolition that demonstrates the soil cap will not be compromised; or (2) evidence that a Soil Management Plan has been approved by the DTSC for any location where the cap may be disturbed, consistent with the requirements of the Covenant to Restrict Use of Property applicable to the parcel and executed by DTSC on December 5, 2007.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

**No Impact:** Buchanan Field Airport is the closest airport to the site and is located approximately 10 miles west-southwest of the Project area. The only other public-use airport located in Contra Costa County is the Byron Airport, located approximately 19 miles southeast of the Project. The Project is not located within the airport influence area for either airport. Therefore, no impacts would occur.

**f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No Impact:** The Project would not alter any existing public or private thoroughway or block any roads or emergency access routes. Therefore, no impacts would occur.

**g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?**

**No Impact:** The Project is located in an urbanized area, including residential and industrial developments, as well as open water (New York Slough). The closest urban-wildland interface

is located more than 2 miles away. Therefore, the Proposed Project does not have a foreseeable risk of impacts related to wildland fires.

**X. Hydrology and Water Quality**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) <b>Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** During Project demolition, lubricants, fuels, and other chemicals used for construction machinery could be spilled during normal usage or during refueling. All equipment would be inspected and serviced prior to commencing work on the Project. Leaks would be repaired immediately when discovered. Spill kits equipped with enough material to provide preliminary containment for a volume of material that can reasonably be expected to spill would be maintained on the barges. Primary and secondary containment would be placed around all fuel required by equipment.

During deconstruction activities, a floating boom and skirt would be deployed around the Project site and absorbent booms and pads would be provided on marine vessels on site. All deconstruction material/debris would be placed onto barges and transported to the marine contractor yard for disposal.

Creosote-treated timber piles removed during the decommissioning of the marine terminal could potentially cause adverse environmental impacts to water quality. Creosote, a mixture of hydrocarbon compounds, was historically used to protect wood products. Creosote can break down and could leach out of the wood and accumulate in the environment to harmful levels in the surrounding water column and sediment (Werme, 2010). During the removal process, there is a potential for chips or shavings of creosote-treated wood to be released into the bay waters. To minimize introduction of creosote to the water, treated wood pilings would not be intentionally broken off by twisting, bending, or other deformation. Upon removal from the substrate and water column, the piling would be moved immediately into the containment area for processing and disposal at approved off-site facilities.

During pile removal and decommissioning activities, sediment disturbance may increase localized turbidity and re-suspend contaminants. Particulate-bound pollutants could become remobilized and/or dissolved in the water column, and could result in potential water quality degradation. Removal activities would be performed slowly to minimize turbidity in the water column and reduce sediment disturbance.

Standard BMPs from the California Stormwater Quality Association (CASQA, 2014) would be implemented, as required, to minimize runoff and soil erosion, and prevent stormwater and surface water contamination at the site. Applicable BMPs may include scheduling considerations (EC-1); preservation of existing vegetation (EC-2); silt fencing (SE-1); straw bale barriers (SE-9); storm drain inlet protection (SE-10); spill prevention, control and cleanup (SC-10, SC-11); vehicle and equipment fueling (SC-20); waste handling and disposal (SC-34); stabilization of disturbed

surfaces (EC-3 through EC-7); tracking control (TC-1); and/or use of wind erosion control measures as applicable (WE-1).

To prevent violations of water quality standards, BMPs listed above would be required to be employed during construction to ensure that impacts to water quality during destruction activities would be minimized and no violations of water quality standards or waste discharge requirements would occur. The potential impact to water quality from Project activities would be temporary and less than significant.

<b>b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project would not alter the course, flow, direction, or quality of groundwater in the area. The Project would not require the use of any groundwater supplies. No impervious surfaces would be introduced as a result of the Project; therefore, no interference with groundwater recharge would occur. Thus, the Project would have no impact on the aquifer volume either through groundwater extraction or reduced recharge. The Proposed Project would not have any impact on groundwater.

<b>c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:</b>				
1) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** There would be no impact related to altered drainage patterns; no erosion or siltation would occur on or offsite as a result of the Project. The Project would have no impacts on the existing drainage pattern of the site or surrounding areas.

2) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project would not result in any additional impervious surfaces and no stream or river alterations would occur. There would not be an increase in runoff that would cause flooding on or offsite. The Project would have no impacts on the existing drainage pattern of the site or surrounding areas.

<p><b>3)</b> create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** Deconstruction material/debris would be sorted and placed into debris bins during deconstruction. Debris from the removed piles and timber platform would be placed on to a barge and transported to an appropriate and permitted off-site disposal facility. A liner would be used at the laydown location and all waste would be contained and covered as needed to prevent contact with stormwater. The Project would not create or contribute runoff exceeding the capacity of existing or planned stormwater drainage systems. Stormwater BMPs would be required to be implemented as applicable, as described above. No polluted runoff would occur as a result of the Project.

<p><b>4)</b> impede or redirect flood flows?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project does not include placing new structures in the 100-year flood hazard area; therefore, there would be no impact.

<p><b>d) Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project is not located in an area mapped as a tsunami or seiche risk and is not expected to be subject to inundation by seiche or tsunami. The California Emergency Management Agency (CalEMA) has produced tsunami inundation maps for areas along the State’s coastline, including within San Francisco Bay (CalEMA, 2009). Tsunami inundation mapping has not been performed by CalEMA for areas east of the Carquinez Strait, which indicates that the potential tsunami threat for the Project site, which is located east of the Carquinez Strait, is not significant. The Project site is located outside the tsunami hazard area as identified on the Contra Costa County Natural Hazards Map (Cal OES, 2018). The Project would not increase or abate the risk of tsunami due to an earthquake. The Project is in a Federal Emergency Management Agency Special Flood Hazard Area; however, deconstruction activities would be temporary and short-term, and impacts would be less than significant.

<p><b>e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The Project would have no impact on groundwater, and the BMPs listed above would be implemented during deconstruction activities to ensure impacts to water quality would be less than significant.

## XI. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) <b>Would the project physically divide an established community?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The Project site occurs on existing privately owned parcels that do not provide any throughway or other public access way. The Project would not result in any physical barrier or feature that could divide an established community because the Project consists of deconstruction activities on a previously developed area and no construction would take place onsite. There would be no impact.

b) <b>Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project area and adjacent lands are in the jurisdiction of the City of Pittsburg and the California State Lands Commission. Existing uses surrounding the Project include residential, industrial, and public uses. The City of Pittsburg General Plan designates the Project site as Park and Marine Commercial. The City of Pittsburg Zoning Map identifies the mainland parcels as CW (Waterfront Commercial) District, while the marine parcel is not located within any specific zoning district.

The Project would involve the deconstruction of the former marine terminal and no change in land use. Because the Project would not change land use and local general plan and zoning designations, there would be no conflict with established planning or regulatory policies. There would be no impact.

**XII. Mineral Resources**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The Proposed Project is located in an urban waterfront area that has been previously developed. There are currently no significant mineral deposits or active mining operations within the City (City of Pittsburg, 2001). Therefore, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the State, or loss of availability of any known locally important mineral resource recovery site. Therefore, no impacts would occur.

**XIII. Noise:**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The Project does not involve development; rather, the deconstruction would only generate temporary noise consistent with typical construction activities.

The City of Pittsburg General Plan Noise Element generally describes a range of changes in ambient (existing) noise levels and how these changes would be perceived by the community, such as a residential receptor, in terms of significance of impact:

- Except under special conditions, a change in sound level of 1 dB cannot be perceived;
- A 3 dB change is considered a “just noticeable” difference;
- A 5 dB change is required before any noticeable change in community response would be expected. A 5 dB change is often considered a “significant impact”; and
- A 10 dB change is subjectively heard as an approximate doubling in loudness and almost always causes an adverse community response.

The greatest noise generated during construction is likely to come from tugboats positioning and towing the barges into place. This noise will be infrequent, and not normally at the location closest to the nearest residential receptors. Also, it is likely that the positioning process will be completed quickly and the tugboats would operate at full power for less than five minutes at a time.

As described in the Biological Assessment for the Project (LSA, 2018a), it is expected that noise levels, both underwater and above the surface, generated from vibratory pile removal or direct pull from derrick barges are significantly lower than impact pile driving and that during pile removal, at a distance of 27 meters or 88.5 feet (slightly less than the distance to the nearest residential receptors), maximum noise levels would approach 85 A-weighted decibels (dBA) Lmax (maximum sound level), with average noise levels approaching 81 dBA Leq (equivalent sound level).

The Project would also result in temporary increases in noise levels in the immediate Project vicinity as a result of other more typical construction equipment usage. Major noise-generating equipment to be used at the site and typical noise levels for the equipment are shown in the table below. As indicated on the table, maximum noise exposure from the equipment to be used during Project deconstruction is not expected to exceed 85 dBA at a distance of 50 feet. The nearest noise-sensitive land use consists of residences located approximately 100 feet from the western end of the Project area. Construction noise levels would be intermittent during the construction period because activity would move around to different locations and be much farther away (up to 1,000 feet) for a majority of the Project schedule. Also, in compliance with the County Code and General Plan, construction activities would not occur during evening hours.

<b>Equipment</b>	<b>Range of Noise Level (dBA) at 50 feet</b>
Crane	81-85
Dump truck	76-84
Excavator	81-85
Trucks	55-75
All other equipment > 5 horsepower	85
Source: FHWA, 2006	

The following are the General Plan Policies relevant to the Project:

- Policy 12-P-9 establishes that generation of loud noises on construction sites adjacent to existing development should be limited to normal business hours between 8 a.m. and 5 p.m.
- Policy 12-P-10 establishes that the impact of truck traffic noise on residential areas should be reduced by limiting such traffic to appropriate truck routes, and that consideration is given to restrict truck travel times in sensitive areas.

The City’s Noise Ordinance (PMC Section 9.44.010) does not establish numerical noise-level limits related to construction noise but makes it unlawful for any person to make, continue or

cause to be made, or continue any noise which either unreasonably annoys, disturbs, injures, or endangers the comfort, repose, health, peace, or safety of others, within the limits of the City. Unreasonable noise sources listed in the ordinance, and potentially relevant to the Project, include unmuffled vehicle exhaust (9.44.010.H) and pile drivers, hammers, and similar equipment (9.44.010.J).

The City’s Building and Construction Ordinance (Section 15.88.060.A.5) prohibits grading noise, including warming up equipment motors, within 1,000 feet of a residence between the hours of 5:30 p.m. and 7 a.m. weekdays, unless otherwise approved by the City Engineer.

Heavy equipment and other mechanized equipment and vehicles would be used. Internal combustion engines, mechanized equipment, material handling, and other activities would generate noise. The noise levels from the Project’s deconstruction activities would be temporary, and would vary throughout the duration of the Project depending upon the activity locations and number and types of equipment.

Since noise generated by the Project would be controlled consistent with the policies contained within the City of Pittsburg General Plan and Pittsburg Municipal Code, impacts would be less than significant.

<b>b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project may generate localized low-level groundborne vibration but the work would be performed largely from floating barges, rather than on the ground surface. Groundborne vibration and noise is attenuated rapidly with distance and the nearest sensitive receptors are located a minimum of approximately 100 feet from the nearest activity. Considering this distance and the nature of the work, groundborne vibration impacts would be less than significant.

<b>c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** There is no private airstrip in the vicinity of the Project site. The Project area is not within an airport land use plan or within 2 miles of a public or public-use airport. The closest airport is in Concord more than 7 miles to the southwest.



**XIV. Population and Housing**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) <b>Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The Proposed Project would not generate population growth, either directly or indirectly. The Project only involves deconstruction and there would be no operational component. The jobs for the Project would be short term and, therefore, are expected to be filled by the existing regional workforce without inducing long-term growth. Because the Project would not generate new long-term, full-time jobs or commercial businesses, construct new housing, or extend existing infrastructure, it is not expected to generate population growth and no impacts would occur.

b) <b>Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project site was used as a former marine terminal. No people would be displaced by the deconstruction of the Project. No housing exists on the Project site and housing would not be displaced by the deconstruction activities. Therefore, no impacts would occur.

**XV. Public Services**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><b>a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</b></p>				
<p>1) Fire protection?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** The Proposed Project deconstruction would follow Contra Costa County Fire Protection District (CCCYPD) requirements for access and fire water supply. The final deconstruction plans would be subject to CCCYPD review and approval. The presence of all identified hazardous materials and waste onsite would require submittal of a Hazardous Materials Business Plan on the California Environmental Reporting System with an emergency response plan with emergency coordinator contact information and mechanisms for emergency access to the unoccupied Project site. Deconstruction debris would be hauled offsite on barges and semi-trucks; no diesel/gas powered equipment would be placed on debris barges that might increase risk of fire. Existing on- and off-site emergency access roads would be maintained in a drivable condition for the duration of deconstruction. Access/egress gates would be in compliance with specifications of Contra Costa County Fire Prevention Regulations. With adherence to these requirements, the Project would not create a capacity or service-level issue related to fire protection. No new or modified government facilities would be needed to provide fire protection for the Project. Therefore, Project impacts on fire services would be less than significant.

<p>2) Police protection?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project would be located in the City of Pittsburg, which provides police protection and public safety within the City limits. Deconstruction of the Project would not generate a material demand on police services. The site would be fenced with controlled-access gates that would avoid the need for routine police protection services. Private security personnel and equipment are present nearby and would remain so during deconstruction. Only authorized personnel would be given security clearance and site access. The Project would not generate population growth that would increase demand for police services. Project activities would be temporary and the site would be occupied only during scheduled deconstruction phases. Considering these factors, the Project would not result in an adverse impact on City of Pittsburg Police Department response times, service ratios, or other performance objectives, nor would it result in the need for new or modified police facilities.

Therefore, Project deconstruction work would have a less-than-significant impact on police services and public safety.

3) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project would not involve activities that would generate population growth in the City of Pittsburg. Therefore, no new demands on school facilities would occur, and there would be no impact on school capacities, service levels, or performance objectives. The Project would not require new or physically altered school facilities. Therefore, there would be no impact.

4) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** As described above, the Project would not generate population growth. Therefore, no new demands on park facilities would occur and there would be no impact on park capacities, service levels, or performance objectives. The Proposed Project would not require new or physically altered park facilities and no impact would occur.

5) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** As described in the response to checklist item (a), above, the Project would not generate population growth or extend infrastructure. The Project would not create a substantial new demand for services and would not require new or physically altered public facilities. Therefore, there would be no impact related to new or physically altered government facilities.

## XVI. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The closest park to the Project site is John Buckley Square, an approximately 1.85-acre public space located approximately 2,000 feet to the southwest of the Project site. The Project would not result in an increase in the residential population. The Project deconstruction work would not cause a substantial increase in use of existing neighborhood and regional parks, nor would it result in substantial deterioration or acceleration of existing facilities, and therefore, there would be no impact.

<b>b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** As noted in checklist item (a) above, the Project would not require the construction or expansion of recreational facilities that may result in adverse environmental physical effects and no impact would occur.

## XVII. Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less Than Significant Impact:** Deconstruction associated with the Proposed Project would have a temporary and short-term effect on traffic during the approximately 120 working days. Project-related traffic would consist of daily commute trips of construction workers and truck trips to haul debris from demolition of the small pump building. All other debris from terminal deconstruction would be placed onto barges and transported over water to the marine contractor yard for further breakdown and disposal.

The Project would generate up to an estimated 24 jobs during peak deconstruction periods and the work crew would park their vehicles onsite at the staging area. Project deconstruction workers are expected to be primarily from the existing regional workforce currently contributing traffic to regional transportation routes, including State Route 4 (SR 4).

Demolition work on the pump building would occur over approximately four months (April 2019 to July 2019). The peak number of construction workers for building demolition is expected to be approximately five. Three semi-trucks would be used to haul 20-cubic-yard debris bins to the site and then haul away the debris for a total of approximately six trips. After the building is demolished, approximately six dump trucks would be used to import clean fill with a total of six loads.

Semi-trucks and equipment would access the Project site primarily via Harbor Street and East 3<sup>rd</sup> Street from SR 4, which are City-designated truck access routes. Considering the minimal number of trips generated and the expected use of the existing regional workforce, the short-term of deconstruction trip generation due to building demolition would not exceed capacity of the City's roadway and transit system. Therefore, this impact would be less than significant.

Marine-based deconstruction material/debris would be placed onto debris barges and transported to the marine contractor's yard for sorting. Debris bins would then be transported from the marine contractor's yard to the appropriate landfill via semi-truck. A total of approximately 190 truck runs

are anticipated. Semi-trucks would use designated truck routes and would be spread throughout the day. In addition, the truck runs would be spread over five different routes, and would not exceed capacity of any City or County roadway system. Therefore, this impact would be less than significant.

Six barges, three skiffs, and one tugboat would be required for the in-water work, and would be present at the Project for approximately seven months. Barges would be towed in at the onset of the in-water work using tugboats, which would swap out the four debris barges approximately twice per week for a total of approximately 30 round trips. Derrick barges would be towed in and remain onsite for the entirety of the in-water work, and the debris barges would be side-tied to the derrick barges. The derrick and debris barges would move together as the deconstruction of the Terminal advances. The marine vessels would be located near shore at the Project site and safely outside marine traffic corridors. Because the barge and tug boat traffic would be minimal, the impacts would be less than significant.

<b>b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** The Project would not conflict with CEQA Guidelines section 15064.3, subdivision (b). The number of truck trips generated during Project deconstruction is provided in subsection (a), above. The Project would have a temporary and short-term effect on traffic over approximately 120 working days. Impacts would be less than significant.

<b>c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project does not include any new construction or realignment of existing roads. The Project site is within existing developed parcels and the Project only includes deconstruction of the marine terminal. The Project would utilize the existing street network for the limited trips and hauling of debris. Thus, the Project would not require new or modified streets or intersections and there would be no impact.

<b>d) Would the project result in inadequate emergency access?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project would not alter any existing public or private thoroughway or block any roads or emergency access routes. Therefore, no impacts would occur.

### XVIII. Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** A search of the NAHC Sacred Lands File was negative; no Sacred Lands are present. AB 52 letters were sent to six tribes on November 9, 2018 resulted in no responses from any of the tribes contacted (as of December 10, 2018).

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** A cultural resources records search conducted through the CHRIS NWIC did not indicate the presence of Native American skeletal remains within a 0.5-mile radius of the Project site. Implementation of mitigation measure CUL-2 (refer to Section V, above) would ensure that in the unlikely event that human remains were discovered during Project activities, they would be handled in compliance with Public Resources Code Section 5024.1.

**XIX. Utilities and Service Systems**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>a) <b>Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The amount of wastewater discharged by the Project deconstruction activities would be minimal and due to dust control during concrete and asphalt cutting. Water use for Project activities would be minimal and only associated with dust control. No new or expanded stormwater drainage facilities are required. No electric power, natural gas, or telecommunications facilities would be constructed. Therefore, the Project would not require the construction or relocation of new water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities and there would be no impact.

<p>b) <b>Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less Than Significant Impact:** A minimal amount of water would be used for dust control associated with concrete and asphalt cutting during the short-term deconstruction activities. Because the amount of water required would be minimal, sufficient water supplies would be available to serve the Project. Therefore, impacts would be less than significant.

<p>c) <b>Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** Wastewater discharge would be minimal and would be produced from dust control activities. No potable water or permanent sanitary facilities are proposed. Portable sanitary facilities would be used onsite for construction with regular pumping and maintenance by a licensed contractor. Because there would be no need for wastewater service to the Site, there would be no impact.

**d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Less Than Significant Impact:** An estimated total of 3,900 CY of timber and 350 CY of construction materials/maintenance debris would require disposal, and 500 CY would be recycled. Materials would be sorted and placed into debris bins that are provided by Tesoro’s Waste Management Department. All deconstruction materials and debris would be disposed as follows: Timber would be transported to the Altamont Landfill, solid trash and debris would be sent to the Keller Canyon Landfill, concrete and asphalt would be transported to Diablo Valley Rock for recycling, and metals recycling would be delivered and managed by Alco Iron & Metal Company.

The Keller Canyon Landfill is a Class II landfill that has a maximum daily capacity of 3,500 tons per day and 320 truck trips. Keller Canyon Landfill is estimated to have a remaining capacity of at least 63 million CY, or approximately 84 percent of its total capacity, and currently has a closure date of December 2030 (CalRecycle, 2018). The Altamont Landfill is a Class III waste management facility that processes approximately 1,500,000 tons of waste annually. The facility has approximately 42.4 million tons of remaining permitted capacity for the next 50 years (Waste Management Solutions, 2014). Diablo Valley Rock is a Class III base rock recycling facility with approximately 100 daily haul trips and accommodates between 100,000 and 125,000 tons of recycled material annually (Carone, 2018). Alco Metal & Iron Company recycling services encompasses over 41 acres at five Bay Area locations (Alco Iron & Metal Company, 2018).

The Proposed Project is not anticipated to generate enough solid waste to significantly impact available capacity of existing landfills and recycling centers, and would not generate solid waste in excess of local standards or impair the attainment of solid waste reduction goals. Therefore, the Project would have a less-than-significant impact related to solid waste disposal.

**e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**Less Than Significant Impact.** The Proposed Project would be required to comply with federal, State, and local waste reduction and recycling regulations, particularly those contained in the California Integrated Waste Management Act of 1989 and the City’s Construction & Demolition Debris Recycling, which requires the diversion of a minimum of 65 percent of the Project’s estimated debris, among other requirements. The amount of solid waste generated by deconstruction activities would not exceed the capacity of landfills and recycling facilities that would serve the Project. The increase in solid waste from implementation of the Project could be accommodated by the existing landfills’ permitted capacity, and would not conflict with any statute or regulation. Therefore, the Project would constitute a less-than-significant impact.



**XX. Wildfire**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact:** The Project is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. The Project is located in an urbanized area, including residential and industrial developments, as well as open water (New York Slough). The closest urban-wildland interface is located more than 2 miles away. There would be no impact to emergency response or evacuation plans.

b) due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. The Project would not expose Project occupants to pollutant concentrations resulting from a wildfire, or the uncontrolled spread of a wildfire.

c) require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. The Project would not require the installation or maintenance of infrastructure. There would be no impact.

<p><b>d) expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?</b></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact:** The Project is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. The terrestrial portion of the Project is not on a slope and the Project does not involve changes to drainage. There would be no impact.

**XXI. Mandatory Findings of Significance:**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><b>e) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</b></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Less than Significant Impact With Mitigation Incorporated:** The terrestrial portions of the Project would have no impact related to the adopted East Contra Costa County Habitat Conservation Plan/Natural Communities Conservation Plan because the Project site is identified as developed. Mitigation Measures BIO-1 through BIO-6 would protect habitat and sensitive species that may occur in that area. These measures include minimization of impacts to the extent feasible and offsetting measures for impacts that cannot be avoided.

Designated critical habitat for delta smelt, Central Valley steelhead DPS, Sacramento winter-run Chinook salmon ESU, and Central Valley spring-run Chinook salmon ESU is located in the Project area. Special-status fish and marine mammals may be present in the waters of New York Slough and could be adversely affected by impacts to water quality, including increases to turbidity and potential leaks or spills from equipment. Because the waters of New York Slough and nearby Suisun Bay are already subject to turbidity during storm events, the temporary, short-term increase in turbidity and sedimentation from construction would be quickly diluted to background levels, and therefore, inconsequential to aquatic wildlife. Impacts to water quality from potential leaks or spills would be less than significant with implementation of mitigation measures in Section X, "Hydrology and Water Quality," and Conservation Measures in sections 2.2.1.2 Spills and

Accidental Discharge, 2.2.1.3 Emergency Spill and Containment Plan, and 2.2.1.4 General Work Site Management Practices of the Project’s Biological Assessment (LSA, 2018a).

In-water work activities that occur during migratory periods could cause special-status fish to avoid the vicinity of the dock and potentially result in fish rerouting into less-desirable corridors. With implementation of MM BIO-3, work would be restricted to work windows that avoid potential impacts to migrating fish and this impact would be reduced to less than significant.

Direct pull to remove piles may cause a sediment plume containing contaminants deleterious to aquatic species or break creosote-coated timber piling, leaving stubs left in the mud that can release harmful contaminants into the water column. Implementation of MM BIO-5 would reduce this impact to less than significant.

Considering the small area of important habitat that could be affected long-term, with implementation of mitigation measures BIO-1 BIO-2, BIO-3, BIO-4, BIO-5, AND BIO-6, the Project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, nor reduce the number or restrict the range of a rare or endangered plant or animal.

No significant historic or prehistoric resources are known to occur onsite based on a records search and Tribal outreach. A search of the NAHC Sacred Lands File was negative. Although the Project area is not included in previous surveys, these previous surveys reveal a consistent lack of archaeological resources. The dock is not eligible for the CRHR and its removal would not cause a substantial adverse change in the significance of a historical resource. Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 provide for protection of cultural resources in the event of a new discovery, and would ensure that impacts to cultural resources would be less than significant in the event cultural resources were to occur in the Project deconstruction area.

**f) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively Considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

As described in preceding sections of this Initial Study checklist, the Project would have no impact on agricultural or forest lands, mineral resources, growth, population, housing, schools, parks, libraries, recreation, tribal cultural resources, or wildfires, and the Project would not conflict with biological resource conservation plans, air quality protection plans, traffic congestion management plans, or other established environmental plans or policies. The Project would be consistent with the City Zoning ordinance. Because the Project would have no impact or conflict in these topic areas, there is no potential for the Project to have a cumulative effect in these topic areas with other past, current, or probable future projects.

The Project would not affect any designated scenic vista nor would it damage any scenic resources. The Project Site is in an industrial, residential, and publicly developed area and would be located on or adjacent to land zoned CW (Waterfront Commercial). Considering these factors, the cumulative impact on aesthetic resources would be less than significant.

Air quality cumulative impacts are addressed in Section III of this Initial Study checklist and are less than significant.

As described in Section IV of this Initial Study, impacts to biological resources would be limited since the Project is in disturbed habitat and impacts would be temporary, and impacts to biological resources would be mitigated through compliance with the East Contra Costa Habitat Conservation Plan/Natural Communities Conservation Plan. Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6 would limit impacts to a less-than-significant level. With these measures, impacts to biological resources would be fully mitigated and would not have the potential for significant cumulative effects.

No cultural resources are known to occur. Mitigation Measures CUL-1 and CUL-2 would ensure that impacts to cultural resources are mitigated in the event of an unexpected cultural resource discovery so that there are no cumulative impacts.

As described in Section VI of this Initial Study, energy use during deconstruction activities would be limited to the equipment listed in Section 2.3 and would be short-term and temporary. Impacts due to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant.

The Project would have no cumulative impact related to geology or soils. The Project would not impact important mineral resources or unique geologic features. Geologic hazards, by nature, are facility-specific and do not have the potential for cumulative effects. The Project would have no impact on seismic hazards at other locations, and no other reasonably foreseeable project could affect seismic hazards at the site. Therefore, there is no cumulative impact related to seismic shaking. There is a possibility that subsurface demolition operations could uncover paleontological resources. Implementation of Mitigation Measure GEO-1 would ensure that potential impacts to paleontological resources would be reduced to a less-than-significant level.

As described in Section VIII of this Initial Study checklist, The Project would not generate significant GHG emissions. Deconstruction activities would generate GHG emissions during the approximately nine-month demolition period. Following demolition, no long-term operational emissions would occur as a result of the Project. Considering these factors, the Project would not have cumulative adverse GHG emission impacts.

As described in Section IX of this Initial Study checklist, the Project would require the short-term transport, use, and disposal of hazardous materials, such as fuels and lubricants, which could create a hazard to construction workers, the public, or the environment if such materials are not properly handled and/or contained. The Project would implement APMs 1 through 7, as described in Section 2.5. These APMs prescribe required hazardous materials handling, storage, spill response, and worker training practices. The former pump-house building could include some ACMs, which, if present, would require asbestos-containing precautions for removal, handling, and disposal (i.e., abatement) in accordance with regulatory requirements. The creosote-treated piles would require handling and disposal in accordance with environmental protection and worker safety regulations, and other hazardous materials may be present that have not been identified. Mitigation Measure HAZ-1 would be implemented to ensure that impacts would remain less than significant. No cumulative impact is anticipated. There would be no impacts once demolition is complete. The Project would be required to comply with all existing laws for safe handling of materials and no cumulative impact is anticipated.

The Project would not violate any water quality standard or waste discharge requirements or affect water quality. Therefore, there would be no cumulative effect in these areas. There would be no cumulative impact to hydrology because there would be no impact related to altered drainage patterns; no erosion or siltation would occur on or offsite as a result of the Project. The Project

would have no impacts on the existing drainage pattern of the site or surrounding areas.

Deconstruction noise would be short term and following deconstruction the Project would not be a source of noise. Noise generated by the Project would be controlled consistent with General Plan Policies 12-P-9 and 12-P-10, and City Ordinance 9.44.010 and 15.88.060.A.5. Considering these factors, the cumulative noise impact would be less than significant.

As described in Section XVII of this Initial Study checklist, the Project would generate no traffic once construction is complete. No projects or other undertakings have been identified in the Site vicinity that could result in a considerable short-term cumulative impact. The Project would not involve new construction or realignment of any roads. The Project would be deconstructed in conformance with all applicable plans, policies, programs, and ordinances related to transportation. Considering these factors, cumulative traffic impacts would be less than significant.

Considering the factors addressed above, the Project would not have significant cumulative impacts with mitigation incorporated.

<b>g) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact With Mitigation Incorporated:** The Project does not have the potential for environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly, other than those addressed in preceding sections of this Initial Study checklist. As described in preceding sections of this Initial Study checklist, the Project would have no impact on agricultural or forest lands, mineral resources, growth, population, housing, schools, parks, libraries, recreation, tribal cultural resources, or wildfires, and the Project would not conflict with zoning, land use, biological resource conservation plans, air quality protection plans, transportation, traffic and congestion management plans, or other established environmental plans or policies. The Project would not have substantial adverse effects related to aesthetics, air quality, energy, greenhouse gasses, geology and soils, hydrology, water quality, public services, transportation, or utilities. With recommended mitigation measures BIO-1 through BIO-6, CUL-1 through CUL-2, GEO-1, and HAZ-1 and HAZ-2, identified in Sections IV, V, VII, and IX, respectively, of this Initial Study checklist, the Project would have less-than-significant impacts related to biological resources, cultural resources, geology and soils, and hazards and hazardous materials. There would be no significant direct, indirect, or cumulative impacts with these mitigation measures incorporated.

### 3.4 List of Preparers

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**APPENDIX A**

**EMISSIONS CALCULATIONS**

**Tesorro Pittsburg Terminal Demolition Project  
Tugboat and Work Boat Emission Factor Derivation and Emissions**

**Assumptions**

Tug Boat Main Generator Engine	1000 bhp
Tug Boat Aux Generator Engine	100 bhp
Work Boat A Engine	50 bhp
Work Boat B Engine	140 bhp
Total Project Usage - Tug Boat	30 round trips
Total Project Usage - Work Boat A	1770 hours
Total Project Usage - Work Boat B	10 hours

**Emission Equation:**

$$E = EF_0 \times F \times (1 + D \times A/UL) \times HP \times LF \times Hr$$

**Where:**

E is the amount of emissions of a pollutant emitted during one period.  
 EF<sub>0</sub> is the model year, horsepower and engine use (propulsion or auxiliary) specific zero hour emission factor (when engine is new).

F is the fuel correction factor which accounts for emission reduction benefits from burning cleaner fuel.  
 D is the horsepower and pollutant specific engine deterioration factor, which is the percentage increase of emission factors at the end of the useful life of the engine.  
 A is the age of the engine when emissions are estimated.  
 UL is the vessel type and engine use specific engine useful life.  
 HP is the rated horsepower of the engine.  
 LF is the vessel type and engine use specific engine load factor.  
 Hr is the number of operating hours of the engine.

**Constants:**

<b>F:</b>	NOx = 0.948		
	PM = 0.852		
<b>D:</b>	NOx = 0.21	HC = 0.44	
	PM = 0.67	CO = 0.25	
<b>A:</b>	5 yrs		
<b>UL:</b>	Tug Boat 21 yrs (main)	17 yrs (aux)	
	Work Boats 17 yrs		
<b>LF:</b>	Tug Boat 0.5 (main)	0.31 (aux)	
	Work Boats 0.45		
<b>Hr:</b>	Tug Boat 6 hours per trip (loaded)		
	Tug Boat 5 hours per trip (unloaded)		
	Work Boat A 1 hour		
	Work Boat B 1 hour		

**Emission Factors (g/hp-hr)**

	ROG	NO <sub>x</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Tug Boat (Main)	0.68	4.09	0.08	0.08	0.0736	545.6	0.023	0.013
Tug Boat (Aux)	0.81	4.09	0.08	0.08	0.0736	545.6	0.023	0.016
Work Boat A	1.8	5.32	0.22	0.22	0.2134	545.6	0.023	0.02
Work Boat B	0.68	3.8	0.09	0.09	0.0873	545.6	0.023	0.013

Activity	Equipment	Pollutant Emissions (lbs)								
		ROG	NO <sub>x</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>
Round Trip Emissions (per tug)										
One-Way Loaded Trip (lbs/day)	Main	4.96	26.87	0.52	0.52	0.48	4458.33	0.19	0.11	4492
One-Way Loaded Trip (lbs/day)	Gen	0.37	1.68	0.03	0.03	0.03	288.92	0.01	0.01	292
One-Way Empty Trip (lbs/day)	Main	4.13	22.39	0.43	0.43	0.40	3715.28	0.16	0.09	3743
One-Way Empty Trip (lbs/day)	Gen	0.31	1.40	0.03	0.03	0.03	240.77	0.01	0.01	243
Total Round Trip Emissions (lbs/day)	Main & Gen	9.78	52.35	1.02	1.02	0.94	8703.30	0.37	0.21	8769
Total Project Tug Boat Emissions (lbs)	Main & Gen	293.3	1570.5	30.5	30.5	28.1	261099.1	11.0	6.3	263079
Work Boat A (lbs/hour)		0.10	0.27	0.01	0.01	0.01	34.95	0.00	0.00	35
Total Project Work Boat A (lbs)		178.12	469.17	19.66	19.66	19.07	61862.37	2.61	2.27	62536
Work Boat B (lbs/hour)		0.11	0.53	0.01	0.01	0.01	97.86	0.00	0.00	99
Total Project Work Boat B (lbs)		1.06	5.30	0.13	0.13	0.12	978.61	0.04	0.02	986
Total Project Watercraft Emissions (lbs)		472.47	2044.96	50.31	50.31	47.28	323940.04	13.66	8.60	326601.3

**Notes:**

ROG, NO<sub>x</sub>, and PM emissions calculated using the method outlined in Emissions Estimation Methodology for Commercial Harbor Craft Operating in California, CARB, revised 2012.

PM emissions are estimated to be equivalent to PM10 emissions. The PM2.5 fraction of the PM10 emissions is estimated to be 92% for Tug Boats and 97% for Work Boats (ICF Consulting, Current Methodologies and Best Practices in Preparing Port Emission Inventories, Final Report, Prepared for U.S. Environmental Protection Agency Sector Strategies Program, April 2006.)  
 CO<sub>2</sub> emission factor from Appendix G - Assumptions for Estimating Greenhouse Gas Emissions from Commercial Harbor Craft Operating in California.

N<sub>2</sub>O and CH<sub>4</sub> emission factors from GHG emission factors in the 2011 Port of Long Beach Air Emission Inventory, Appendix B.

Global Warming Potentials (GWPs) obtained from the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). GWPs used here do not include climate-carbon feedbacks. Only criteria pollutants with Bay Area Air Quality Management District Significance Thresholds (ROG, NO<sub>x</sub>, PM10, PM2.5) calculated here.

Tesoro Pittsburg Terminal - Bay Area AQMD Air District, Annual

**Tesoro Pittsburg Terminal  
Bay Area AQMD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	50.00	User Defined Unit	5.00	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	64
<b>Climate Zone</b>	4			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**



Tesoro Pittsburg Terminal - Bay Area AQMD Air District, Annual

tblOffRoadEquipment	HorsePower	231.00	400.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	84.00	140.00
tblOffRoadEquipment	HorsePower	172.00	6.00
tblOffRoadEquipment	HorsePower	172.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.67
tblOffRoadEquipment	UsageHours	7.00	6.67
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	8.05
tblOffRoadEquipment	UsageHours	8.00	8.33
tblOffRoadEquipment	UsageHours	8.00	8.33
tblOffRoadEquipment	UsageHours	8.00	6.67
tblTripsAndVMT	HaulingTripLength	20.00	34.60
tblTripsAndVMT	HaulingTripNumber	3.00	18.00
tblTripsAndVMT	HaulingTripNumber	386.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	380.00
tblTripsAndVMT	VendorTripLength	7.30	5.00

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tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	VendorTripLength	7.30	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	24.00
tblTripsAndVMT	WorkerTripNumber	8.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00
tblTripsAndVMT	WorkerTripNumber	5.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

**2.0 Emissions Summary**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2019	6-30-2019	0.7751	0.7751
2	7-1-2019	9-30-2019	0.8238	0.8238
		Highest	0.8238	0.8238

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>



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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	2 Remove Building	Demolition	4/1/2019	4/5/2019	5	4	
2	1 Mobilize	Site Preparation	4/1/2019	4/16/2019	5	10	
3	3 Remove Above Deck Appurtenances	Demolition	5/1/2019	5/8/2019	5	5	
4	4 Remove Main Platform	Demolition	5/1/2019	8/1/2019	5	55	
5	8 Marine Contractor Yard - Material Sort and Loading	Building Construction	6/3/2019	8/8/2019	5	40	
6	5 Remove Walkways	Demolition	6/10/2019	6/17/2019	5	5	
7	7 Remove Piles	Demolition	7/1/2019	10/29/2019	5	70	
8	6A Remove Dolphins A	Demolition	7/15/2019	7/22/2019	5	5	
9	6B Remove Dolphins B	Demolition	8/26/2019	9/2/2019	5	5	
10	9 Debris Scan	Building Construction	11/4/2019	11/4/2019	5	1	
11	10 Remove Mudline Debris	Demolition	11/25/2019	12/5/2019	5	8	
12	11 Demob/Complete	Building Construction	12/9/2019	12/16/2019	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
2 Remove Building	Excavators	1	6.40	158	0.38
2 Remove Building	Off-Highway Trucks	1	0.60	402	0.38
2 Remove Building	Off-Highway Trucks	1	0.60	402	0.38
2 Remove Building	Rollers	1	1.60	80	0.38

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2 Remove Building	Tractors/Loaders/Backhoes	1	6.40	97	0.37
1 Mobilize	Air Compressors	1	6.67	78	0.48
1 Mobilize	Cranes	1	6.67	400	0.29
1 Mobilize	Cranes	1	6.67	231	0.29
1 Mobilize	Excavators	1	6.67	158	0.38
1 Mobilize	Generator Sets	1	6.67	140	0.74
3 Remove Above Deck Appurtenances	Air Compressors	1	8.33	78	0.48
3 Remove Above Deck Appurtenances	Cranes	1	8.33	400	0.29
3 Remove Above Deck Appurtenances	Generator Sets	1	8.33	140	0.74
3 Remove Above Deck Appurtenances	Other Construction Equipment	2	8.33	6	0.42
4 Remove Main Platform	Air Compressors	1	8.09	78	0.48
4 Remove Main Platform	Cranes	1	8.09	400	0.29
4 Remove Main Platform	Generator Sets	1	8.09	140	0.74
4 Remove Main Platform	Other Construction Equipment	3	8.09	6	0.42
5 Remove Walkways	Air Compressors	1	8.33	78	0.48
5 Remove Walkways	Cranes	1	8.33	400	0.29
5 Remove Walkways	Cranes	1	8.33	231	0.29
5 Remove Walkways	Generator Sets	1	8.33	140	0.74
8 Marine Contractor Yard - Material Sort and Loading	Excavators	1	8.00	158	0.38
8 Marine Contractor Yard - Material Sort and Loading	Forklifts	1	8.00	89	0.20
6A Remove Dolphins A	Air Compressors	1	8.33	78	0.48
6A Remove Dolphins A	Cranes	1	8.33	400	0.29
6A Remove Dolphins A	Cranes	1	8.33	231	0.29
6A Remove Dolphins A	Excavators	1	8.33	158	0.38
6A Remove Dolphins A	Generator Sets	1	8.33	140	0.74
6B Remove Dolphins B	Air Compressors	1	8.33	78	0.48
6B Remove Dolphins B	Cranes	1	8.33	400	0.29

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6B Remove Dolphins B	Cranes	1	8.33	231	0.29
6B Remove Dolphins B	Excavators	1	8.33	158	0.38
6B Remove Dolphins B	Generator Sets	1	8.33	140	0.74
7 Remove Piles	Cranes	1	8.05	231	0.29
7 Remove Piles	Excavators	1	8.05	158	0.38
9 Debris Scan	Other Construction Equipment	0	0.00	172	0.42
10 Remove Mudline Debris	Air Compressors	1	8.89	78	0.48
10 Remove Mudline Debris	Cranes	1	8.89	400	0.29
10 Remove Mudline Debris	Generator Sets	1	8.89	140	0.74
11 Demob/Complete	Air Compressors	1	6.67	78	0.48
11 Demob/Complete	Cranes	1	6.67	400	0.29
11 Demob/Complete	Cranes	1	6.67	231	0.29
11 Demob/Complete	Excavators	1	6.67	158	0.38
11 Demob/Complete	Generator Sets	1	6.67	140	0.74

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
2 Remove Building	5	24.00	0.00	18.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
1 Mobilize	5	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
3 Remove Above Deck Appendances	5	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
4 Remove Main Platform	6	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
5 Remove Walkways	4	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
8 Marine Contractor Yard - Material Sort an	2	24.00	0.00	380.00	10.80	5.00	34.60	LD_Mix	HDT_Mix	HHDT
6A Remove Dolphins	5	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
6B Remove Dolphins	5	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
7 Remove Piles	2	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
9 Debris Scan	0	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
10 Remove Mudline Debris	3	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT
11 Demob/Complete	5	24.00	0.00	0.00	10.80	5.00	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**3.2 2 Remove Building - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7000e-004	0.0000	3.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	0.0139	0.0136	2.0000e-005		7.4000e-004	7.4000e-004		6.8000e-004	6.8000e-004	0.0000	2.0480	2.0480	6.5000e-004	0.0000	2.0642
<b>Total</b>	<b>1.3700e-003</b>	<b>0.0139</b>	<b>0.0136</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>7.4000e-004</b>	<b>1.1100e-003</b>	<b>6.0000e-005</b>	<b>6.8000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.0480</b>	<b>2.0480</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.0642</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.5200e-003	6.9000e-004	1.0000e-005	1.6000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8714	0.8714	5.0000e-005	0.0000	0.8725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4289	0.4289	1.0000e-005	0.0000	0.4292
<b>Total</b>	<b>3.2000e-004</b>	<b>3.6800e-003</b>	<b>2.3300e-003</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>1.8000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>1.3002</b>	<b>1.3002</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.3017</b>

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**3.2 2 Remove Building - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7000e-004	0.0000	3.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	0.0139	0.0136	2.0000e-005		7.4000e-004	7.4000e-004		6.8000e-004	6.8000e-004	0.0000	2.0480	2.0480	6.5000e-004	0.0000	2.0642
<b>Total</b>	<b>1.3700e-003</b>	<b>0.0139</b>	<b>0.0136</b>	<b>2.0000e-005</b>	<b>3.7000e-004</b>	<b>7.4000e-004</b>	<b>1.1100e-003</b>	<b>6.0000e-005</b>	<b>6.8000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.0480</b>	<b>2.0480</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.0642</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.5200e-003	6.9000e-004	1.0000e-005	1.6000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8714	0.8714	5.0000e-005	0.0000	0.8725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4289	0.4289	1.0000e-005	0.0000	0.4292
<b>Total</b>	<b>3.2000e-004</b>	<b>3.6800e-003</b>	<b>2.3300e-003</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>1.0000e-005</b>	<b>6.5000e-004</b>	<b>1.8000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>1.3002</b>	<b>1.3002</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>1.3017</b>

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**3.3 1 Mobilize - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1241	0.0972	1.8000e-004		5.6300e-003	5.6300e-003		5.3300e-003	5.3300e-003	0.0000	15.8131	15.8131	3.3300e-003	0.0000	15.8964
<b>Total</b>	<b>0.0118</b>	<b>0.1241</b>	<b>0.0972</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>5.6300e-003</b>	<b>5.6300e-003</b>	<b>0.0000</b>	<b>5.3300e-003</b>	<b>5.3300e-003</b>	<b>0.0000</b>	<b>15.8131</b>	<b>15.8131</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>15.8964</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.9000e-004	3.9400e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0293	1.0293	3.0000e-005	0.0000	1.0300
<b>Total</b>	<b>5.2000e-004</b>	<b>3.9000e-004</b>	<b>3.9400e-003</b>	<b>1.0000e-005</b>	<b>1.1400e-003</b>	<b>1.0000e-005</b>	<b>1.1500e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.0293</b>	<b>1.0293</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0300</b>



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**3.3 1 Mobilize - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1241	0.0972	1.8000e-004		5.6300e-003	5.6300e-003		5.3300e-003	5.3300e-003	0.0000	15.8131	15.8131	3.3300e-003	0.0000	15.8964
<b>Total</b>	<b>0.0118</b>	<b>0.1241</b>	<b>0.0972</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>5.6300e-003</b>	<b>5.6300e-003</b>	<b>0.0000</b>	<b>5.3300e-003</b>	<b>5.3300e-003</b>	<b>0.0000</b>	<b>15.8131</b>	<b>15.8131</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>15.8964</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.9000e-004	3.9400e-003	1.0000e-005	1.1400e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0293	1.0293	3.0000e-005	0.0000	1.0300
<b>Total</b>	<b>5.2000e-004</b>	<b>3.9000e-004</b>	<b>3.9400e-003</b>	<b>1.0000e-005</b>	<b>1.1400e-003</b>	<b>1.0000e-005</b>	<b>1.1500e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.0293</b>	<b>1.0293</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0300</b>

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**3.4 3 Remove Above Deck Appurtenances - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3200e-003	0.0518	0.0449	8.0000e-005		2.4400e-003	2.4400e-003		2.3400e-003	2.3400e-003	0.0000	6.9431	6.9431	1.1500e-003	0.0000	6.9720
<b>Total</b>	<b>5.3200e-003</b>	<b>0.0518</b>	<b>0.0449</b>	<b>8.0000e-005</b>		<b>2.4400e-003</b>	<b>2.4400e-003</b>		<b>2.3400e-003</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>6.9431</b>	<b>6.9431</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>6.9720</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.4 3 Remove Above Deck Appurtenances - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3200e-003	0.0518	0.0449	8.0000e-005		2.4400e-003	2.4400e-003		2.3400e-003	2.3400e-003	0.0000	6.9431	6.9431	1.1500e-003	0.0000	6.9719
<b>Total</b>	<b>5.3200e-003</b>	<b>0.0518</b>	<b>0.0449</b>	<b>8.0000e-005</b>		<b>2.4400e-003</b>	<b>2.4400e-003</b>		<b>2.3400e-003</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>6.9431</b>	<b>6.9431</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>6.9719</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.5 4 Remove Main Platform - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0508	0.0000	0.0508	7.7000e-003	0.0000	7.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0594	0.5694	0.4953	8.7000e-004		0.0271	0.0271		0.0260	0.0260	0.0000	76.0348	76.0348	0.0128	0.0000	76.3534
<b>Total</b>	<b>0.0594</b>	<b>0.5694</b>	<b>0.4953</b>	<b>8.7000e-004</b>	<b>0.0508</b>	<b>0.0271</b>	<b>0.0779</b>	<b>7.7000e-003</b>	<b>0.0260</b>	<b>0.0337</b>	<b>0.0000</b>	<b>76.0348</b>	<b>76.0348</b>	<b>0.0128</b>	<b>0.0000</b>	<b>76.3534</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	2.1600e-003	0.0220	6.0000e-005	6.3500e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.7468	5.7468	1.5000e-004	0.0000	5.7506
<b>Total</b>	<b>2.9100e-003</b>	<b>2.1600e-003</b>	<b>0.0220</b>	<b>6.0000e-005</b>	<b>6.3500e-003</b>	<b>4.0000e-005</b>	<b>6.4000e-003</b>	<b>1.6900e-003</b>	<b>4.0000e-005</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>5.7468</b>	<b>5.7468</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.7506</b>

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**3.5 4 Remove Main Platform - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0508	0.0000	0.0508	7.7000e-003	0.0000	7.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0594	0.5694	0.4953	8.7000e-004		0.0271	0.0271		0.0260	0.0260	0.0000	76.0347	76.0347	0.0128	0.0000	76.3533
<b>Total</b>	<b>0.0594</b>	<b>0.5694</b>	<b>0.4953</b>	<b>8.7000e-004</b>	<b>0.0508</b>	<b>0.0271</b>	<b>0.0779</b>	<b>7.7000e-003</b>	<b>0.0260</b>	<b>0.0337</b>	<b>0.0000</b>	<b>76.0347</b>	<b>76.0347</b>	<b>0.0128</b>	<b>0.0000</b>	<b>76.3533</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9100e-003	2.1600e-003	0.0220	6.0000e-005	6.3500e-003	4.0000e-005	6.4000e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.7468	5.7468	1.5000e-004	0.0000	5.7506
<b>Total</b>	<b>2.9100e-003</b>	<b>2.1600e-003</b>	<b>0.0220</b>	<b>6.0000e-005</b>	<b>6.3500e-003</b>	<b>4.0000e-005</b>	<b>6.4000e-003</b>	<b>1.6900e-003</b>	<b>4.0000e-005</b>	<b>1.7300e-003</b>	<b>0.0000</b>	<b>5.7468</b>	<b>5.7468</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.7506</b>

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**3.6 8 Marine Contractor Yard - Material Sort and Loading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1007	0.1092	1.6000e-004		5.8800e-003	5.8800e-003		5.4100e-003	5.4100e-003	0.0000	14.7235	14.7235	4.6600e-003	0.0000	14.8400
<b>Total</b>	<b>0.0103</b>	<b>0.1007</b>	<b>0.1092</b>	<b>1.6000e-004</b>		<b>5.8800e-003</b>	<b>5.8800e-003</b>		<b>5.4100e-003</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>14.7235</b>	<b>14.7235</b>	<b>4.6600e-003</b>	<b>0.0000</b>	<b>14.8400</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3300e-003	0.1095	0.0221	3.1000e-004	5.8600e-003	4.7000e-004	6.3300e-003	1.6400e-003	4.5000e-004	2.0900e-003	0.0000	29.5651	29.5651	1.3600e-003	0.0000	29.5992
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.5800e-003	0.0161	5.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.2029	4.2029	1.1000e-004	0.0000	4.2057
<b>Total</b>	<b>5.4600e-003</b>	<b>0.1111</b>	<b>0.0382</b>	<b>3.6000e-004</b>	<b>0.0105</b>	<b>5.0000e-004</b>	<b>0.0110</b>	<b>2.8800e-003</b>	<b>4.8000e-004</b>	<b>3.3600e-003</b>	<b>0.0000</b>	<b>33.7680</b>	<b>33.7680</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>33.8049</b>

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**3.6 8 Marine Contractor Yard - Material Sort and Loading - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1007	0.1092	1.6000e-004		5.8800e-003	5.8800e-003		5.4100e-003	5.4100e-003	0.0000	14.7235	14.7235	4.6600e-003	0.0000	14.8400
<b>Total</b>	<b>0.0103</b>	<b>0.1007</b>	<b>0.1092</b>	<b>1.6000e-004</b>		<b>5.8800e-003</b>	<b>5.8800e-003</b>		<b>5.4100e-003</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>14.7235</b>	<b>14.7235</b>	<b>4.6600e-003</b>	<b>0.0000</b>	<b>14.8400</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3300e-003	0.1095	0.0221	3.1000e-004	5.8600e-003	4.7000e-004	6.3300e-003	1.6400e-003	4.5000e-004	2.0900e-003	0.0000	29.5651	29.5651	1.3600e-003	0.0000	29.5992
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1300e-003	1.5800e-003	0.0161	5.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.2029	4.2029	1.1000e-004	0.0000	4.2057
<b>Total</b>	<b>5.4600e-003</b>	<b>0.1111</b>	<b>0.0382</b>	<b>3.6000e-004</b>	<b>0.0105</b>	<b>5.0000e-004</b>	<b>0.0110</b>	<b>2.8800e-003</b>	<b>4.8000e-004</b>	<b>3.3600e-003</b>	<b>0.0000</b>	<b>33.7680</b>	<b>33.7680</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>33.8049</b>

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**3.7 5 Remove Walkways - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5700e-003	0.0691	0.0505	1.0000e-004		3.1100e-003	3.1100e-003		2.9600e-003	2.9600e-003	0.0000	8.4259	8.4259	1.6200e-003	0.0000	8.4664
<b>Total</b>	<b>6.5700e-003</b>	<b>0.0691</b>	<b>0.0505</b>	<b>1.0000e-004</b>		<b>3.1100e-003</b>	<b>3.1100e-003</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>8.4259</b>	<b>8.4259</b>	<b>1.6200e-003</b>	<b>0.0000</b>	<b>8.4664</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>



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**3.7 5 Remove Walkways - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5700e-003	0.0691	0.0505	1.0000e-004		3.1100e-003	3.1100e-003		2.9600e-003	2.9600e-003	0.0000	8.4258	8.4258	1.6200e-003	0.0000	8.4664
<b>Total</b>	<b>6.5700e-003</b>	<b>0.0691</b>	<b>0.0505</b>	<b>1.0000e-004</b>		<b>3.1100e-003</b>	<b>3.1100e-003</b>		<b>2.9600e-003</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>8.4258</b>	<b>8.4258</b>	<b>1.6200e-003</b>	<b>0.0000</b>	<b>8.4664</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.8 7 Remove Piles - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0335	0.3803	0.2432	4.8000e-004		0.0168	0.0168		0.0155	0.0155	0.0000	42.9787	42.9787	0.0136	0.0000	43.3186
<b>Total</b>	<b>0.0335</b>	<b>0.3803</b>	<b>0.2432</b>	<b>4.8000e-004</b>		<b>0.0168</b>	<b>0.0168</b>		<b>0.0155</b>	<b>0.0155</b>	<b>0.0000</b>	<b>42.9787</b>	<b>42.9787</b>	<b>0.0136</b>	<b>0.0000</b>	<b>43.3186</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	2.8000e-003	0.0286	8.0000e-005	8.2500e-003	6.0000e-005	8.3100e-003	2.1900e-003	5.0000e-005	2.2500e-003	0.0000	7.4622	7.4622	2.0000e-004	0.0000	7.4672
<b>Total</b>	<b>3.7800e-003</b>	<b>2.8000e-003</b>	<b>0.0286</b>	<b>8.0000e-005</b>	<b>8.2500e-003</b>	<b>6.0000e-005</b>	<b>8.3100e-003</b>	<b>2.1900e-003</b>	<b>5.0000e-005</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>7.4622</b>	<b>7.4622</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>7.4672</b>

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**3.8 7 Remove Piles - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0335	0.3803	0.2432	4.8000e-004		0.0168	0.0168		0.0155	0.0155	0.0000	42.9786	42.9786	0.0136	0.0000	43.3186
<b>Total</b>	<b>0.0335</b>	<b>0.3803</b>	<b>0.2432</b>	<b>4.8000e-004</b>		<b>0.0168</b>	<b>0.0168</b>		<b>0.0155</b>	<b>0.0155</b>	<b>0.0000</b>	<b>42.9786</b>	<b>42.9786</b>	<b>0.0136</b>	<b>0.0000</b>	<b>43.3186</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	2.8000e-003	0.0286	8.0000e-005	8.2500e-003	6.0000e-005	8.3100e-003	2.1900e-003	5.0000e-005	2.2500e-003	0.0000	7.4622	7.4622	2.0000e-004	0.0000	7.4672
<b>Total</b>	<b>3.7800e-003</b>	<b>2.8000e-003</b>	<b>0.0286</b>	<b>8.0000e-005</b>	<b>8.2500e-003</b>	<b>6.0000e-005</b>	<b>8.3100e-003</b>	<b>2.1900e-003</b>	<b>5.0000e-005</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>7.4622</b>	<b>7.4622</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>7.4672</b>

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**3.9 6A Remove Dolphins A - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0775	0.0607	1.1000e-004		3.5200e-003	3.5200e-003		3.3300e-003	3.3300e-003	0.0000	9.8743	9.8743	2.0800e-003	0.0000	9.9263
<b>Total</b>	<b>7.3800e-003</b>	<b>0.0775</b>	<b>0.0607</b>	<b>1.1000e-004</b>		<b>3.5200e-003</b>	<b>3.5200e-003</b>		<b>3.3300e-003</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>9.8743</b>	<b>9.8743</b>	<b>2.0800e-003</b>	<b>0.0000</b>	<b>9.9263</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.9 6A Remove Dolphins A - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0775	0.0607	1.1000e-004		3.5200e-003	3.5200e-003		3.3300e-003	3.3300e-003	0.0000	9.8743	9.8743	2.0800e-003	0.0000	9.9263
<b>Total</b>	<b>7.3800e-003</b>	<b>0.0775</b>	<b>0.0607</b>	<b>1.1000e-004</b>		<b>3.5200e-003</b>	<b>3.5200e-003</b>		<b>3.3300e-003</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>9.8743</b>	<b>9.8743</b>	<b>2.0800e-003</b>	<b>0.0000</b>	<b>9.9263</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.10 6B Remove Dolphins B - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0775	0.0607	1.1000e-004		3.5200e-003	3.5200e-003		3.3300e-003	3.3300e-003	0.0000	9.8743	9.8743	2.0800e-003	0.0000	9.9263
<b>Total</b>	<b>7.3800e-003</b>	<b>0.0775</b>	<b>0.0607</b>	<b>1.1000e-004</b>		<b>3.5200e-003</b>	<b>3.5200e-003</b>		<b>3.3300e-003</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>9.8743</b>	<b>9.8743</b>	<b>2.0800e-003</b>	<b>0.0000</b>	<b>9.9263</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.10 6B Remove Dolphins B - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0775	0.0607	1.1000e-004		3.5200e-003	3.5200e-003		3.3300e-003	3.3300e-003	0.0000	9.8743	9.8743	2.0800e-003	0.0000	9.9263
<b>Total</b>	<b>7.3800e-003</b>	<b>0.0775</b>	<b>0.0607</b>	<b>1.1000e-004</b>		<b>3.5200e-003</b>	<b>3.5200e-003</b>		<b>3.3300e-003</b>	<b>3.3300e-003</b>	<b>0.0000</b>	<b>9.8743</b>	<b>9.8743</b>	<b>2.0800e-003</b>	<b>0.0000</b>	<b>9.9263</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.11 9 Debris Scan - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.3000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0858	0.0858	0.0000	0.0000	0.0858
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0858</b>	<b>0.0858</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0858</b>



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**3.11 9 Debris Scan - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.3000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0858	0.0858	0.0000	0.0000	0.0858
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0858</b>	<b>0.0858</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0858</b>

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**3.12 10 Remove Mudline Debris - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-003	0.0806	0.0694	1.2000e-004		3.7100e-003	3.7100e-003		3.5700e-003	3.5700e-003	0.0000	10.8972	10.8972	1.7800e-003	0.0000	10.9416
<b>Total</b>	<b>8.0000e-003</b>	<b>0.0806</b>	<b>0.0694</b>	<b>1.2000e-004</b>		<b>3.7100e-003</b>	<b>3.7100e-003</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>0.0000</b>	<b>10.8972</b>	<b>10.8972</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>10.9416</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	2.9600e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7720	0.7720	2.0000e-005	0.0000	0.7725
<b>Total</b>	<b>3.9000e-004</b>	<b>2.9000e-004</b>	<b>2.9600e-003</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>1.0000e-005</b>	<b>8.6000e-004</b>	<b>2.3000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7720</b>	<b>0.7720</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7725</b>

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**3.12 10 Remove Mudline Debris - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-003	0.0806	0.0694	1.2000e-004		3.7100e-003	3.7100e-003		3.5700e-003	3.5700e-003	0.0000	10.8971	10.8971	1.7800e-003	0.0000	10.9416
<b>Total</b>	<b>8.0000e-003</b>	<b>0.0806</b>	<b>0.0694</b>	<b>1.2000e-004</b>		<b>3.7100e-003</b>	<b>3.7100e-003</b>		<b>3.5700e-003</b>	<b>3.5700e-003</b>	<b>0.0000</b>	<b>10.8971</b>	<b>10.8971</b>	<b>1.7800e-003</b>	<b>0.0000</b>	<b>10.9416</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	2.9600e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7720	0.7720	2.0000e-005	0.0000	0.7725
<b>Total</b>	<b>3.9000e-004</b>	<b>2.9000e-004</b>	<b>2.9600e-003</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>1.0000e-005</b>	<b>8.6000e-004</b>	<b>2.3000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7720</b>	<b>0.7720</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7725</b>

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**3.13 11 Demob/Complete - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9100e-003	0.0620	0.0486	9.0000e-005		2.8100e-003	2.8100e-003		2.6700e-003	2.6700e-003	0.0000	7.9065	7.9065	1.6700e-003	0.0000	7.9482
<b>Total</b>	<b>5.9100e-003</b>	<b>0.0620</b>	<b>0.0486</b>	<b>9.0000e-005</b>		<b>2.8100e-003</b>	<b>2.8100e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>7.9065</b>	<b>7.9065</b>	<b>1.6700e-003</b>	<b>0.0000</b>	<b>7.9482</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

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**3.13 11 Demob/Complete - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9100e-003	0.0620	0.0486	9.0000e-005		2.8100e-003	2.8100e-003		2.6700e-003	2.6700e-003	0.0000	7.9065	7.9065	1.6700e-003	0.0000	7.9482
<b>Total</b>	<b>5.9100e-003</b>	<b>0.0620</b>	<b>0.0486</b>	<b>9.0000e-005</b>		<b>2.8100e-003</b>	<b>2.8100e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>7.9065</b>	<b>7.9065</b>	<b>1.6700e-003</b>	<b>0.0000</b>	<b>7.9482</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.9000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5146	0.5146	1.0000e-005	0.0000	0.5150
<b>Total</b>	<b>2.6000e-004</b>	<b>1.9000e-004</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>5.7000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5146</b>	<b>0.5146</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5150</b>

**4.0 Operational Detail - Mobile**

---

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812







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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Unmitigated	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
<b>Total</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
<b>Total</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.5000e-004</b>

**7.0 Water Detail**

---

**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

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**APPENDIX B**

**BIOLOGICAL ASSESSMENT**



# BIOLOGICAL ASSESSMENT

## PITTSBURG TERMINAL DECONSTRUCTION PROJECT PITTSBURG, CONTRA COSTA COUNTY, CALIFORNIA

Submitted to:

U.S. Army Corps of Engineers, Regulatory Branch  
1455 Market Street, 16<sup>th</sup> Floor  
San Francisco, California 94103-1398  
(Corps File Number **Pending**)

Prepared for:

Tesoro Refining & Marketing Company, LLC  
150 Solano Way  
Martinez, California 94553

Prepared by:

LSA  
157 Park Place  
Point Richmond, California 94801  
510.236.6810

Project No. TSO1804



November 2018

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**APPENDICES**

A: SPECIES LIST FROM SACRAMENTO FISH AND WILDLIFE OFFICE

## LIST OF ABBREVIATIONS AND ACRONYMS

BA	Biological Assessment
BMP	Best Management Practice
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
Corps	U.S. Army Corps of Engineers
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
ESU	Evolutionarily Significant Unit
FESA	Federal Endangered Species Act
FMP	Fishery Management Plan
FR	Federal Register
IPaC	Information for Planning and Consultation maintained by the U.S. Fish and Wildlife Service
MOTEMS	Marine Oil Terminal Engineering and Maintenance Standards
NFH	National Fish Hatchery
NMFS	National Marine Fisheries Service
U.S.	United States
USFWS	U.S. Fish and Wildlife Service

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## 1.0 INTRODUCTION

### 1.1 PURPOSE OF THE BIOLOGICAL ASSESSMENT

The Tesoro Refining & Marketing Company LLC (Tesoro) is seeking permits from jurisdictional agencies to implement the Pittsburg Terminal Deconstruction Project (proposed project). The purpose of this Biological Assessment (BA) is to review and analyze the proposed project in sufficient detail to determine the extent to which it may affect threatened, endangered, or candidate species and designated or proposed critical habitat protected under the Federal Endangered Species Act (FESA) of 1973.

LSA has prepared this BA on behalf of Tesoro for use by the U.S. Army Corps of Engineers (Corps) to facilitate consultation with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) in accordance with legal requirements set forth under regulations implementing Section 7 of the FESA. In addition to compliance with provisions of the FESA, Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires federal agencies to consult with NMFS regarding any action or proposed action that may adversely affect Essential Fish Habitat (EFH) for federally managed fish species. All native San Francisco Estuary fish species are federally managed under the Magnuson-Stevens Act and Suisun Bay waters within the project area are considered EFH for fish species covered under the Pacific Groundfish Fishery Management Plan (FMP) and Pacific Salmon FMP. As such, this BA will also address potential effects of the proposed project on EFH.

#### 1.1.1 Definitions

Definitions of key terms used in this document are provided below.

**Action Area** refers to the area directly or indirectly affected by the proposed project, including a portion of the open waters of New York Slough, which is part of Suisun Bay and just south of Browns Island, in which fish may potentially be present during Pittsburg terminal deconstruction. A full description of the Action Area is provided in Section 2.3.

**Project area** refers to the entire Pittsburg terminal where proposed deconstruction will occur, including work areas on five marine contractor barges in New York Slough within Suisun Bay. All terminal deconstruction and pile removal activities performed in the project area will be in-water. The Work Plan for the project includes one staging area on land that will be used for placement of up to two construction trailers with parking for a maximum of 10 vehicles (Tesoro 2018a).

**Project vicinity** encompasses all lands within 5 miles of the project area boundary.

**Proposed project** refers to the Pittsburg Terminal Deconstruction Project, synonymous with "project."

## 1.2 PROJECT INFORMATION AND RESPONSIBLE PARTIES

<b>Title:</b>	Pittsburg Terminal Deconstruction Project
<b>Lead Federal Agency:</b>	U.S. Army Corps of Engineers, San Francisco District
<b>Location:</b>	595 East 3rd Street Pittsburg, Contra Costa County, California 94565 Vine Hill 7.5-minute U.S. Geological Survey Quadrangle
<b>Applicant:</b>	Tesoro Refining & Marketing Company LLC 150 Solano Way Martinez, California 94553 <b>Contact:</b> Peter Carroll Tel: 925/335-3497
<b>BA Preparer:</b>	LSA 157 Park Place Point Richmond, California 94801 <b>Contacts:</b> Ross Dobberteen and Eric Lichtwardt Tel: 510/236-6810; Fax: 510/236-3480

## 1.3 PRE-FIELD INVESTIGATION AND SPECIES CONSIDERED

LSA assessed the biological resources in the Action Area, which included a review of BAs and documents for nearby projects including the Avon Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) Compliance Project (LSA 2014), relevant literature, and databases including the California Natural Diversity Database (Figures 1 and 2) (CNDDDB; CDFW 2018). LSA used the CNDDDB to develop a list of federally listed species with known occurrences within 2 miles of the Action Area (Figure 3). The CNDDDB search results were supplemented by in-house knowledge of LSA biologists regarding the occurrence of federally listed species in Contra Costa County and specifically in the vicinity of the Action Area. LSA also reviewed U.S. Geological Survey topographic maps and current Google Earth aerial images of the Action Area to assess what species may potentially be present and which habitats and cover types occur on site (Table A). LSA accessed the USFWS Information for Planning and Consultation (IPaC) database (USFWS 2018) to produce a list of 15 endangered and threatened species under USFWS jurisdiction that may occur in the Action Area and/or may be affected by the proposed project; please see Appendix A for the USFWS letter and species list.

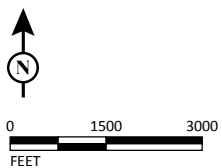
LSA biologists analyzed these sources to create Table A, which includes all 22 federally listed species addressed in this BA that occur or may occur in the project vicinity. Table A includes five additional federally listed fish species that may occur in the Action Area under NMFS jurisdiction. These five fish species are known from Suisun Bay and were addressed in a BA prepared for the nearby recently completed Avon MOTEMS Compliance Project (LSA 2014). Table A also includes one plant species and one invertebrate species from the 2-mile CNDDDB results from Antioch Dunes within the vicinity of the Action Area.





FIGURE 1

LSA



Pittsburg Terminal Deconstruction Project  
 Pittsburg, Contra Costa County, California  
 Project Area Location

SOURCE: Esri National Geographic World Map Service (2018) and Google (2018).  
 I:\TSO1804\GIS\Maps\BA\Figure 1\_Project Area Location.mxd (9/12/2018)

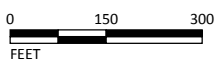
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**LSA**

**LEGEND**

- Action Area
- Project Area



SOURCE: Google Aerial Imagery (04/2018).

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**FIGURE 2**

*Pittsburg Terminal Deconstruction Project  
Pittsburg, Contra Costa County, California  
Action Area*

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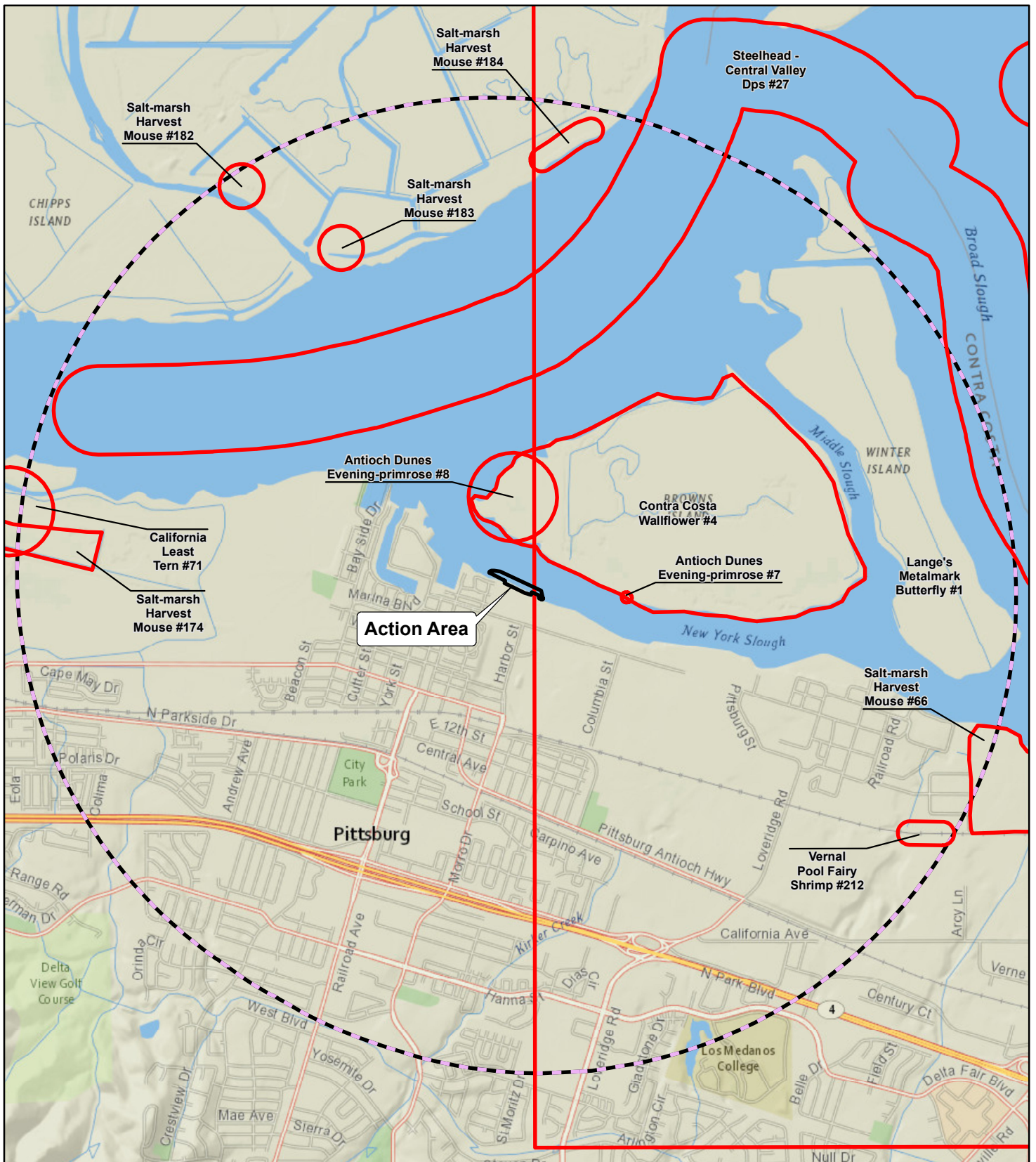



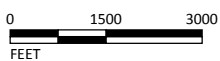


FIGURE 3

LSA

LEGEND

-  Action Area
-  CNDDB Occurrences within 2 Miles
-  2-mile Radius around Action Area



SOURCE: Esri National Geographic World Map Service (2018); CDFW CNDDB

I:\TSO1804\GIS\Maps\BA\Figure 3\_CNDDB Occurrences of Federally Listed Species.mxd (9/13/2018)

*Pittsburg Terminal Deconstruction Project  
Pittsburg, Contra Costa County, California*

CNDDB Occurrences of Federally Listed Species  
within 2 Miles of the Action Area

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**Table A: Federally Listed Species Evaluated for the Pittsburg Terminal Deconstruction Project, Pittsburg, California**

Common Name	Scientific Name	Federal Status	Preliminary Effect Determination and Discussion
<b>PLANTS</b>			
Soft bird's-beak	<i>Chloropyron molle</i> ssp. <i>molle</i> (formerly <i>Cordylanthus mollis</i> ssp. <i>mollis</i> )	FE, CH	<u>No effect.</u> No suitable brackish marsh habitat is present in the Action Area. No CNDDDB occurrences within 2 miles of the Action Area.
Antioch Dunes evening-primrose	<i>Oenothera deltoides</i> ssp. <i>howellii</i>	FE, CH	<u>No effect.</u> Found on inland dunes. No suitable habitat is present in the Action Area.
Contra Costa wallflower	<i>Erysimum capitatum</i> var. <i>angustatum</i>	FE	<u>No effect.</u> Found on inland dunes and known only from the Antioch Dunes east of the project area. No suitable habitat is present in the Action Area.
<b>INVERTEBRATES</b>			
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT, CH	<u>No effect.</u> Does not occur in the Action Area and elderberry shrubs are absent from the project area. No CNDDDB occurrences within 2 miles of the Action Area.
Delta green ground beetle	<i>Elaphrus viridis</i>	FT, CH	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.
San Bruno elfin butterfly	<i>Callophrys mossii bayensis</i>	FE, proposed CH	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.
Lange's metalmark butterfly	<i>Apodemia mormo langei</i>	FE	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat is present; host plant Antioch Dunes buckwheat ( <i>Eriogonum nudum psychicola</i> ) is not present.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT, CH	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat including seasonal wetlands is present.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE, CH	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat including seasonal wetlands is present. No CNDDDB occurrences within 2 miles of the Action Area.
<b>FISH</b>			
Delta smelt	<i>Hypomesus transpacificus</i>	FT, CH	<u>May affect, not likely to adversely affect.</u> May occur in open water habitat and tidal channels within the Action Area. Critical habitat is present in the Action Area.

Common Name	Scientific Name	Federal Status	Preliminary Effect Determination and Discussion
North American green sturgeon (southern DPS)	<i>Acipenser medirostris</i>	FT, CH	<u>May affect, not likely to adversely affect.</u> Known to migrate through Suisun Bay; may occur in open water habitat within the Action Area.
Steelhead (Central California coast DPS)	<i>Oncorhynchus mykiss</i>	FT, CH	<u>May affect, not likely to adversely affect.</u> Known to migrate through Suisun Bay; may occur in open water habitat within the Action Area.
Steelhead (Central Valley DPS)	<i>Oncorhynchus mykiss</i>	FT, CH	<u>May affect, not likely to adversely affect.</u> Known to migrate through Suisun Bay; may occur in open water habitat within the Action Area. Critical habitat is present in the Action Area.
Chinook salmon (Central Valley spring-run ESU)	<i>Oncorhynchus tshawytscha</i>	FT, CH	<u>May affect, not likely to adversely affect.</u> Known to migrate through Suisun Bay; may occur in open water habitat within the Action Area. Critical habitat is present in the Action Area.
Chinook salmon (Sacramento River winter-run ESU)	<i>Oncorhynchus tshawytscha</i>	FE, CH	<u>May affect, not likely to adversely affect.</u> Known to migrate through Suisun Bay; may occur in open water habitat within the Action Area. Critical habitat is present in the Action Area.
<b>AMPHIBIANS</b>			
California tiger salamander (Central California DPS)	<i>Ambystoma californiense</i>	FT, CH	<u>No effect.</u> No suitable seasonal freshwater aquatic habitat or grassland upland habitat is present in the Action Area. No CNDDDB occurrences within 2 miles of the Action Area.
California red-legged frog	<i>Rana draytonii</i>	FT, CH	<u>No effect.</u> Does not occur in the Action Area and no suitable freshwater aquatic habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.
<b>REPTILES</b>			
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	FT, CH	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.
Giant garter snake	<i>Thamnophis gigas</i>	FT	<u>No effect.</u> Does not occur in the Action Area and no suitable habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.
<b>BIRDS</b>			
California Ridgway's rail	<i>Rallus longirostris obsoletus</i>	FE	<u>No effect.</u> Does not occur in the Action Area and no suitable tidal/brackish marsh habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.



Common Name	Scientific Name	Federal Status	Preliminary Effect Determination and Discussion
California least tern	<i>Sternula antillarum browni</i>	FE	<u>No effect.</u> Does not occur in the Action Area and no suitable nesting habitat, such as sandy beaches, alkali flats, or other hard-pan surfaces, is present.
<b>MAMMALS</b>			
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	FE	<u>No effect.</u> Does not occur in the Action Area and no suitable tidal/brackish marsh habitat is present. No CNDDDB occurrences within 2 miles of the Action Area.

**Acronyms**

CH = Critical Habitat (designated)  
DPS = Distinct Population Segment

ESU = Evolutionarily Significant Unit  
FE = Federally Endangered

FT = Federally Threatened

Based on a review of the distribution and habitat requirements of these species and habitat conditions within the Action Area, LSA determined that 16 of these species would not be affected by the proposed project because no suitable habitat is present in the Action Area and they would not occur. These 16 species are included in Table A but are not further discussed in this BA. The remaining six species have either been recorded in the project vicinity or could potentially occur based on the presence of suitable habitat: North American green sturgeon distinct population segment (DPS) (*Acipenser medirostris*), delta smelt (*Hypomesus transpacificus*), Central California coast steelhead DPS (*Oncorhynchus mykiss*), Central Valley steelhead DPS, Central Valley spring-run Chinook salmon Evolutionarily Significant Unit (ESU) (*Oncorhynchus tshawytscha*), and Sacramento River winter-run Chinook salmon ESU. Section 3.2 provides species accounts, and Section 4.0 analyzes the potential for the proposed project to affect these six fish species, which are herein referred to as the six federally listed fish species.

## 1.4 FIELD INVESTIGATION

LSA biologists Ross Dobberteen and Eric Lichtwardt, accompanied by Tesoro staff, conducted a site visit on May 10, 2018. The purpose of the site visit was to discuss the project, assess current habitat conditions, and evaluate the potential occurrence of federally listed plant and animal species in the Action Area. Photographs of the Pittsburg terminal to be deconstructed are presented in the Work Plan (Tesoro 2018a).

## 1.5 NOMENCLATURE

The scientific and vernacular nomenclature for the plant and animal species and vegetation types used in this BA are from the following standard sources: plants, Baldwin et al. (2012) and California Native Plant Society (2010); fishes, Page et al. (2013); amphibians and reptiles, Crother (2017); birds, American Ornithologists' Union (1998) and supplements; and mammals, Baker et al. (2003) and Reid (2006). For animals, subspecies names are used only when a specific subspecies is listed by the USFWS or NMFS.

## **1.6 CONSULTATIONS TO DATE**

No formal consultation with USFWS or NMFS has occurred to date for this project. The submittal of this BA is intended to initiate FESA consultation with USFWS and NMFS.

## **1.7 PROJECT LOCATION**

The project area is located along the waterfront of Pittsburg, California on the southern shoreline of Suisun Bay opposite Browns Island (Assessor's Parcel Number 073-010-011). The Pittsburg terminal to be deconstructed is located at 595 East 3rd Street in Pittsburg (Figures 1 and 2). All proposed work for this terminal deconstruction project will be performed in-water from five marine contractor barges in New York Slough within Suisun Bay except demolition of the abandoned building that is part of the terminal from land. One staging area on land will be used for placement of up to two construction trailers with parking for work vehicles.

### **1.7.1 Project Area Description**

The project area depicted in Figure 2 includes all Pittsburg terminal structures and extends approximately 50 feet out into New York Slough from the outer boundary of the terminal where deconstruction and pile removal will occur.

## 2.0 DESCRIPTION OF THE PROPOSED PROJECT

### 2.1 PROJECT DESCRIPTION

#### 2.1.1 Purpose and Need

The Pittsburg Public Wharf Repair Study (Trenkwalder 2017) and Pittsburg Tesoro Timber Terminal Waterfront Facilities Inspection Report (Moffatt & Nichol 2013) concluded that the Pittsburg terminal is in poor condition and needs substantial repair, replacement, or removal. More than 50 percent of the creosote-treated timber piles in the terminal platform are damaged and many areas for the platform are dangerous to walk on. In addition, the terminal asphalt is either sinking, cracked, and/or falling into the water (Moffatt & Nichol 2013).

Deconstruction and removal of the non-operational Pittsburg terminal will mitigate potential environmental issues. Specifically, the proposed terminal deconstruction project is necessary and will provide a long-term benefit by removing a consistent source of contamination (i.e., creosote-treated timber piles) and will outweigh any potential temporary effects to the six federally listed fish species in Table A and to EFH (Hanson et al. 2003). The proposed project will also result in daylighting open water habitat that is currently shaded by the terminal platform.

#### 2.1.2 Pittsburg Terminal Deconstruction Details

The Pittsburg terminal was built in the 1940s and is currently non-operational. Tesoro is planning on deconstruction of all structures associated with the terminal in the second quarter of 2019 upon receipt of necessary regulatory permit approvals. The following information is from the Work Plan (Tesoro 2018a), Tesoro Pittsburg Terminal Deconstruction Procedures (Deconstruction Plan) (Tesoro 2018b), and repair study and inspection reports (Trenkwalder 2017; Moffatt & Nichol 2013):

- The Pittsburg terminal is comprised of a timber platform topped with asphalt concrete over timber deck boards, piles, pile caps, and stringer beams; please see the Work Plan for specific dimensions.
- The terminal platform is supported by 627 creosote-treated 14-inch-diameter timber piles spaced approximately 4 to 6 feet apart, two 24-inch-diameter steel piles, timber pile caps, stringer beams, and deck boards. The main terminal platform will be deconstructed using two methods according to the Deconstruction Plan.
- A timber pile supported, continuous spring fender system runs along the north face of the terminal platform with 154 creosote-treated timber fender piles to be removed.
- Catwalks extend on both sides of the terminal to three mooring dolphins to the west (W-1, W-2, and W-3) and two dolphins to the east (E-1 and E-2) that are supported by pile bents. All these structures will be deconstructed, including the 143 creosote-treated timber piles and timber walkways that span between the dolphins and the terminal platform (see Figure 2 in Work Plan).
- The westernmost mooring dolphin W-1 is more recently constructed and contains a reinforced concrete cap with 11 square reinforced concrete piles that are 18 by 18 inches (all other dolphins are creosote-treated timber).

- One existing 16-inch steel pile at the W-3 dolphin will be removed.
- An abandoned 20-foot-by-30-foot building located on the shore near the west approach onto the terminal platform, including miscellaneous contents, will be removed in its entirety from land (see Figure 2 in Work Plan). A hazardous materials survey will be conducted by a qualified hazardous materials consultant prior to start of demolition of this building. If necessary, the building area will be filled with suitable, clean fill material and graded/compacted as needed to leave in a safe condition.

All 938 existing piles (924 timber, 11 reinforced concrete, 1 16-inch steel pile, and 2 24-inch steel piles) supporting the Pittsburg terminal will be removed according to the Deconstruction Plan and as discussed below. Timber, concrete, and steel piles will be removed using different methods including derrick barges, a vibratory extractor, and an excavator with a hydraulic shear attachment. Pile extraction will be conducted from five marine contractor barges moored in New York Slough using cranes and generators. Two of the barges will be derrick barges with up to 100-ton crane capacity and the other three will be flat barges for marshaling materials and equipment. All work will occur above water with the possible exception of underwater work to clip pile stubs below the mudline if necessary (Tesoro 2018b). Without maintenance dredging, it is anticipated that pile stubs will remain below the mudline.

According to the Deconstruction Plan, Tesoro will remove entire steel piles when feasible using a derrick barge and vibratory extractor. However, if necessary, steel piles will be cut to the standard minimum depth of 3 feet below the mudline using an excavator and hydraulic shear attachment. Tesoro plans to remove reinforced concrete piles to a minimum depth of 3 feet below the current mudline using a derrick barge and vibratory excavator with a hydraulic shear attachment. This method is preferred rather than trying to remove entire concrete piles that would likely break apart during the extraction process. Cutting concrete piles down to stubs results in less debris present in the New York Slough.

In addition, Tesoro will remove timber piles using a combination of three methods with a derrick barge: (a) have the barge remove entire piles (i.e., direct pull technique); (b) use a vibratory extractor on the barge to remove entire piles; or (c) break off piles to a minimum depth of 3 feet below the mudline from the barge. Based on experience from nearby pile removal projects, Tesoro determined that timber piles generally break off more than 3 feet below the mudline. Therefore, to avoid introducing creosote to the water column from broken piles, all of the 924 timber piles will be broken off to at least 3 feet below the mudline (the preferred method). Confirmation that all piles have been removed will be included in the post-deconstruction multi-beam survey (Tesoro 2018b).

Prior to terminal platform deconstruction, provisions will be made to contain associated debris and cutting fluids. A debris boom will be deployed according to the Deconstruction Plan. Personnel on barges will monitor the debris boom, and any captured debris will be removed and placed into appropriate debris bins on the barges. For deconstruction of the concrete dolphin W-1, a temporary timber structure would be constructed underneath the concrete platform to contain falling debris. If cutting fluids are used during drilling and/or concrete sawing, slurry generated during hole cutting would be captured using industrial vacuums and a containment drum. Details of the debris containment will be provided by the selected contractor in the final project-specific plans and

Deconstruction Plan to be prepared for review and approval by Tesoro prior to beginning deconstruction.

Large, intact sections of the main terminal platform will most likely be removed, as well as 20-foot sections of walkways to be placed onto barges for transport to a marine contractor yard. All further breakdown required would be performed at the marine contractor yard, which is considered a safer, more easily managed method than cutting and processing debris material on barges.

### 2.1.3 Project Benefits

Deconstruction of the Pittsburg terminal platform, causeways, and dolphins will daylight approximately 47,600 square feet of open water and benthic habitat currently shaded by the terminal (Tesoro 2018a). In addition, removal of 938 existing piles will result in an increase in approximately 1,020 square feet of benthic habitat in the New York Slough area of Suisun Bay. Therefore, the completion of the proposed project will result in an increase of unshaded open water and benthic habitat that will benefit the six federally listed fish species (Sections 4.0 and 6.0), as well as EFH.

## 2.2 CONSERVATION MEASURES

### 2.2.1 General Avoidance and Minimization Measures

Given the potential or known occurrences of six federally listed species within or adjacent to the Action Area (Table A), Tesoro will implement best management practices (BMPs) and avoidance and minimization measures presented below to minimize the effects of the proposed project on federally listed species and their open water habitat.

#### 2.2.1.1 Limits of Work

The primary work areas will be on the five marine contractor barges used to perform the terminal deconstruction and pile removal and will conform to those shown in the Work Plan and Deconstruction Plan provided by Tesoro. All project-related activities will be confined to the designated work areas; project personnel will be restricted from entering adjacent areas. The only land areas to be used will be a staging area for placement of up to two construction trailers with parking and where demolition of the abandoned building will occur.

#### 2.2.1.2 Spills and Accidental Discharge

Tesoro and its contractors will be responsible for structuring operations in a manner that minimizes the risk of spills or accidental discharge of fuels or hazardous materials. Tesoro and its contractors will, at a minimum, ensure that:

1. All employees handling fuels and other hazardous materials are properly trained;
2. All equipment is in good operating order and inspected on a regular basis; and
3. Hazardous materials, including chemicals, fuels, and lubricating oils, will not be stored within 200 feet of a wetland or water body (e.g., Suisun Bay). This requirement applies to storage of these materials and does not apply to normal operation or use of equipment in these areas.

### 2.2.1.3 Emergency Spill and Containment Plan

In the event of an accidental spill of product from a pipeline or vehicle, the *Tesoro Oil Spill Contingency Plan* will be implemented. A full copy of this plan will be included in the bid specification package and will be present at the work site during all project-related activities.

At a minimum, Tesoro and its contractors will:

1. Ensure that each construction crew (including cleanup crews) has sufficient supplies of absorbent and barrier materials on site to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills.
2. Ensure that each construction crew has sufficient tools and material on site to stop leaks.
3. Know the contact names and telephone numbers for all Tesoro refinery contacts and local, State, and federal agencies (including, if necessary, the U.S. Coast Guard and the National Response Center) that might need to be notified in the event of a spill.
4. Follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

### 2.2.1.4 General Work Site Management Practices

The following measures will be employed by Tesoro and its contractors to avoid and minimize impacts to water quality in the project area, including measures specified in the Work Plan (Tesoro 2018a):

1. Secondary containment will be provided for any equipment or vehicles stored in the work area to reduce the potential for any spills.
2. All fuel required by construction equipment will have primary and secondary containment. Any spills will be contained and properly disposed of according to permit requirements.
3. All vehicles and equipment will be properly maintained to reduce the potential for spills of petroleum-based products. Containment booms and sorbent materials will be available during work activities and will be deployed immediately in the event of a spill to limit its spread.
4. No debris, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil or petroleum products, or other organic or earthen material will be allowed to enter into or be placed where it may be washed by rainfall or runoff into open water (i.e., New York Slough and Suisun Bay).
5. If any materials or wastes are accidentally released into New York Slough or Suisun Bay, project supervisors will immediately halt all work and utilize all available resources to ensure containment and removal.
6. Necessary steps will be taken to ensure the health and safety of the workers on the job and public in the surrounding area. The crew and supervisors will be trained with all documentation current and environmental and security regulations precisely followed. Equipment and marine

contractor barges must be equipped with precautionary safety and spill containment equipment.

7. BMPs will be consistently employed to help prevent pollutants from entering Suisun Bay waters. Employees, subcontractors, and vendors must be informed, educated, and trained to understand the applicable practices and procedures for the various deconstruction activities being performed.
8. After deconstruction is completed, final cleanup of the project area will include removal of all refuse generated by deconstruction that will be placed into trucks or marine contractor barges for proper disposal. In addition, all equipment will be safely demobilized from the area.
9. Tesoro will schedule as much work as possible during the dry season to minimize the potential for wet weather, surface flooding, and high water tables in the work area.
10. Pets will not be allowed in or near the work site.
11. Firearms will not be allowed in or near the work site, except for armed Tesoro security officers who may periodically patrol the work site. No intentional killing or injury of wildlife will be permitted.
12. The work site will be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, cigarette butts, and other discarded items) will be placed in closed containers and properly disposed of off site.

## 2.2.2 Federally Listed Fish and Essential Fish Habitat Protection Measures

The avoidance and minimization measures described below have been incorporated into the project and will serve as mitigation measures to offset potential effects to the six federally listed fish species potentially present in the Action Area and to EFH. These measures are based on the NMFS *Biological Opinion on the Avon MOTEMS Compliance Project*, dated April 15, 2015 (NMFS File No. WCR-2015-2004) and the NMFS *Non-fishing Impacts to Essential Fish Habitat and Recommended Conservation Measures* (Hanson et al. 2003). The following measures will be implemented for the proposed project:

### 2.2.2.1 Pile Removal Restrictions

1. When a vibratory extractor is used during pile removal according to the Deconstruction Plan (e.g., for steel piles), piles will be removed slowly to allow sediment to slough off at or near the mudline and minimize turbidity in the water column. The operator will first vibrate each pile to break the bond between the sediment and pile to minimize the potential for the pile to break, as well as reduce the amount of sediment sloughing off the pile during removal.
2. All removed creosote-treated timber, concrete, and steel piles and timber deck planks will be transported on barges to a marine contractor yard according to the Deconstruction Plan.

### 2.2.2.2 General Endangered and Threatened Species Measures

**Daylight Working.** All work will be during daylight hours and no artificial illumination will be used.

**Work Areas.** Personnel will limit their entry into the immediate vicinity of the project area. All personnel and their equipment will be required to stay within the designated work areas to perform job-related tasks and will be directed to stay out of surrounding areas.

**Compensatory Mitigation.** The proposed project may potentially result in unquantified temporary impacts to habitat for the six federally listed fish species within the Action Area in New York Slough through temporary increase in turbidity and suspension of sediments during pile removal. However, pile removal is not anticipated to result in adverse levels of turbidity or release of contaminants contained in those sediments. Vibratory pile removal usually results in relatively low levels of suspended sediments and contaminants because often sediments slough off at the mudline (LSA 2014). In addition, all avoidance and minimization measures described in Section 2.2 will be implemented, including BMPs to contain sediment.

Therefore, the proposed project does not require compensatory mitigation because of the long-term benefit of eliminating a significant source of contamination (e.g., creosote-treated timber piles). Additionally, upon project completion, the increased daylighting of open water and benthic habitat for the six federally listed fish species and EFH outweighs any temporary potential adverse effects from increased sediment and turbidity to these species and to EFH. In addition, temporary impacts to the six fish species related to turbidity during pile removal should be minimal because these species are accustomed to some levels of turbidity in New York Slough during normal storm events.

### 2.3 ACTION AREA

The Action Area is defined in 50 Code of Federal Regulations § 402.02 as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the purposes of this BA, the Action Area was defined by analyzing the potential extent of effects of the proposed project including barge movement and temporary increase in sedimentation in the context of habitat suitability and species sensitivity to human-caused disturbance. The Action Area includes a portion of New York Slough within Suisun Bay adjacent to Pittsburg and is opposite Browns Island (Figures 1 and 2). The Action Area includes the entire project area and extends 100 feet east and west from the outer edges of the Pittsburg terminal and out to the mid-channel of New York Slough (Figure 2). Terminal deconstruction and pile removal will occur from the fixed marine contractor barges in New York Slough except for demolition of the abandoned building from land.



## 3.0 STATUS OF FEDERALLY LISTED SPECIES AND CRITICAL HABITAT

### 3.1 ENVIRONMENTAL BASELINE

#### 3.1.1 Land Use and Topography

The Pittsburg terminal is a dilapidated structure that is no longer in use. The project area is at and below sea level along a tidal slough (Figure 2).

#### 3.1.2 Land Cover Types

The primary cover type within the Action Area is a derelict overwater marine structure and open water. The project area also includes a small area of shoreline, composed of riprap littered with woody debris that supports little vegetation dominated by ruderal non-native plants, such as iceplant (*Carpobrotus chilensis*), black mustard (*Brassica nigra*), fennel (*Foeniculum vulgare*), and wild oat (*Avena* sp.). Non-native trees, such as myoporum (*Myoporum laetum*), are scattered along the shoreline above the tidal zone. There is also a sparse growth of bulrush (*Schenoplectus* sp.) along portions of the shoreline.

#### 3.1.3 Fish and Wildlife

Fish and wildlife species observed in the Action Area during the field visit included various species of birds that have adapted to human-modified landscapes throughout the San Francisco Bay Area and include mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), and northern mockingbird (*Mimus polyglottos*). The aquatic habitat in New York Slough provides habitat for various fish species in addition to the six federally listed species addressed in the BA; examples include white sturgeon (*Acipenser transmontanus*), starry flounder (*Platichthys stellatus*), and the non-native striped bass (*Morone saxatilis*). The adjacent aquatic habitat in New York Slough also provides foraging and loafing habitat for various species of ducks, double-crested cormorants (*Phalacrocorax auritus*), gulls, terns, and other waterbirds. Diving ducks, such as greater scaup (*Aythya marila*) and ruddy duck (*Oxyura jamaicensis*), likely forage in the waters adjacent to the Pittsburg terminal. Dabbling ducks, such as mallard (*Anas platyrhynchos*) and American wigeon (*Anas americana*), also likely forage in the shallows adjacent to the Action Area.

#### 3.1.4 Wildlife and Plants Not Present in Action Area

LSA biologists determined no suitable tidal/brackish marsh habitat is present in the Action Area by analyzing sources from Section 1.3 (e.g., CNDDDB) and from the field visit. Therefore, coastal marsh species, including salt marsh harvest mouse (*Reithrodontomys raviventris*), are not present in the Action Area and will not be affected by the proposed project (Table A). In addition, no submerged aquatic vegetation is present within the Action Area (e.g., pond weed). Finally, the proposed project will not take place within or adjacent to eelgrass beds (Merkel & Associates, Inc. 2009).

## 3.2 SPECIES ACCOUNTS

### 3.2.1 North American Green Sturgeon – Southern Distinct Population Segment

#### 3.2.1.1 Status and Biology

The North American green sturgeon southern DPS was federally listed as threatened on April 7, 2006 (71 Federal Register [FR] 17757); this listing took effect on June 6, 2006. The southern DPS includes all populations originating from coastal watersheds south of the Eel River, with the only known spawning population in the Sacramento River. Critical habitat for the southern DPS of green sturgeon was designated by NMFS on October 9, 2009 (74 FR 52300); this designation took effect on November 9, 2009. This designation includes all waters of San Francisco Bay though does not include the Action Area.

Green sturgeon primarily occurs in nearshore oceanic waters, bays, and estuaries. Adults and juveniles are benthic feeders, with juveniles in the San Francisco Estuary known to feed on opossum shrimp (*Neomysis mercedis*) and amphipods (*Corophium* sp.) (Radtke 1966, as cited in Moyle 2002). Spawning occurs in deep, fast water within the main stem of the Sacramento River and some of its larger tributaries. Juveniles spend 1 to 4 years in freshwater and estuarine waters before dispersing to saltwater (Beamesderfer and Webb 2002).

#### 3.2.1.2 Potential for Occurrence

The open waters of Suisun Bay serve as a migratory corridor between the Pacific Ocean and upstream spawning habitat in the Sacramento River and may provide foraging habitat for adult and sub-adult green sturgeon (NMFS 2011). The open waters within and adjacent to the project area provide potential migratory and possibly rearing habitat for this species throughout the year.

### 3.2.2 Delta Smelt

#### 3.2.2.1 Status and Biology

Delta smelt is federally listed as threatened and is also State-listed as endangered. This species occurs in the upper San Francisco Estuary (Delta and Suisun Bay), preferring the area between freshwater and brackish water. In the Delta, they are found below Isleton on the Sacramento River and throughout Suisun Bay, moving into channels and sloughs in the spring (February to May) to spawn (Moyle 2002). Prior to spawning, adult delta smelt migrate upstream to river channels and tidally influenced backwater sloughs. Delta smelt spawning occurs in the Sacramento River and in Barker, Lindsey, Cache, Georgiana, Prospect, Beaver, Hog, and Sycamore sloughs (USFWS 1993). Distribution of delta smelt is related to the conditions of the estuary. During drought years when freshwater outflow may be low, smelt can be found higher up in the Sacramento River and in times of high freshwater outflows, smelt can be found lower in Suisun Bay. This distribution pattern occurs for many reasons including changes in food organisms, toxic substances, disease, competition, and predation (Moyle 2002). Since delta smelt are euryhaline (i.e., adapt to live in a large range of salinities), they rear young in shallow estuary waters. The preferred habitat is in the area where brackish water and freshwater converge, and they will shift to stay in this mixed water. At adulthood, delta smelt will move upstream to spawn. Their preferred spawning habitat is submerged tree roots and branches, as well as emergent vegetation, which is needed for egg

attachment. Delta smelt larvae feed on macroinvertebrates on the bottom of the stream until the swim bladder and fins are fully developed. Once fully developed, they move downstream to the mixing area between brackish water and freshwater.

### 3.2.2.2 Potential for Occurrence

Delta smelt are known to occur in Suisun Bay and could occur in the open waters within and adjacent to the Action Area throughout the year. Spawning is unlikely within the Action Area due to the lack of emergent vegetative cover.

### 3.2.2.3 Critical Habitat within Action Area

All waters and submerged lands below ordinary high water of Suisun Bay, including within the Action Area, have been designated as critical habitat for delta smelt (59 FR 65256). Primary constituent elements of designated critical habitat for delta smelt include physical habitat, water, river flow, and salinity concentrations required to maintain delta smelt habitat for spawning, larval and juvenile transport, rearing, and adult migration. Specific areas that have been identified as important delta smelt spawning habitat include Barker, Lindsey, Cache, Prospect, Georgiana, Beaver, Hog, and Sycamore sloughs and the Sacramento River in the Sacramento-San Joaquin River Delta, and tributaries of northern Suisun Bay.

## 3.2.3 Central California Coast Steelhead

### 3.2.3.1 Status and Biology

The Central California coast steelhead DPS was federally listed as threatened on August 18, 1997 (62 FR 43937); the threatened status was reaffirmed on February 6, 2006 (71 FR 834). This DPS includes all naturally spawned anadromous populations below impassable barriers in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chippis Island at the confluence of the Sacramento and San Joaquin Rivers. Critical habitat for this steelhead DPS was designated on September 2, 2005, with an effective date of January 2, 2006. This designation includes Suisun Bay waters to the west of though not within the Action Area.

Steelhead within Suisun Bay may be classified as ocean-maturing or winter steelhead that typically begin their spawning migration during the fall and winter and spawn within a few weeks to a few months from when they enter freshwater (McEwan and Jackson 1996, as cited in Leidy 2007). Steelhead migrate upstream from the ocean after one to four growing seasons at sea (Burgner et al. 1992, as cited in Leidy 2007). Upstream migrating steelhead may be observed within San Francisco Bay and Suisun Marsh/Bay between August and March (Leidy 2007). Ocean-maturing steelhead typically spawn between December and April, with most spawning occurring between January and March (Moyle 2002). Steelhead may not die after spawning like Pacific salmon and thus return to the ocean following spawning to spawn again the following year and potentially a third or fourth time. Juvenile steelhead rear in freshwater for 1 to 4 years before migrating downstream.

### 3.2.3.2 Potential for Occurrence

The open waters within and adjacent to the Action Area provide potential migratory habitat for adult Central California coast steelhead DPS. Adults migrating to and from upstream spawning habitat in Suisun Bay tributaries (e.g., Pacheco Creek) may occasionally pass through the Action Area between August and March.

## 3.2.4 California Central Valley Steelhead

### 3.2.4.1 Status and Biology

The California Central Valley steelhead DPS was federally listed as threatened on February 6, 2006 (71 FR 834). Central Valley steelhead are strictly a winter-run species, entering freshwater tributary streams of the Sacramento and San Joaquin Rivers to spawn between August and October. Presently, the decline of Central Valley steelhead is related to the construction of dams on spawning streams limiting, or preventing, access to traditional spawning grounds. Additionally, water diversions and historical pollution have contributed to the decline of the species.

### 3.2.4.2 Potential for Occurrence

The open waters within and adjacent to the Action Area provide potential migratory habitat for adult California Central Valley steelhead DPS. Adults migrating to and from upstream spawning habitat in the Sacramento and San Joaquin River tributaries may occasionally pass through the Action Area between August and October.

### 3.2.4.3 Critical Habitat within Action Area

Critical habitat for this steelhead DPS was designated on September 2, 2005, with an effective date of January 2, 2006. This designation includes Delta waterways and estuarine areas serving as migration corridors and includes Suisun Bay and New York Slough within the Action Area (NMFS 2005).

## 3.2.5 Central Valley Spring-Run Chinook Salmon

### 3.2.5.1 Status and Biology

The Central Valley spring-run Chinook salmon ESU was federally listed as threatened on September 16, 1999 (64 FR 50393); the threatened status was reaffirmed on June 28, 2005 (70 FR 37160). The ESU includes all naturally spawned populations of spring-run Chinook salmon in the Sacramento River and its tributaries, including the Feather River, as well as the Feather River Hatchery spring-run Chinook program.

Immature spring-run Chinook salmon enter rivers from the ocean in the spring and early summer, with the peak migratory period from May through June. Spawning occurs from late August through October in just a few streams in the Sacramento and Klamath drainages (Moyle 2002). Juveniles emerge from November through March, with some migrating downstream soon after emergence and others waiting until the following fall as yearlings. Migrating adult spring-run Chinook salmon are present in the Sacramento River between March and July (NMFS 2011).

### 3.2.5.2 Potential for Occurrence

Open waters within and adjacent to the Action Area provide potential habitat for upstream-migrating adult Central Valley spring-run Chinook salmon during the spring and early summer and downstream-migrating juveniles during the late summer and early fall.

### 3.2.5.3 Critical Habitat within Action Area

Critical habitat for this Chinook salmon ESU was designated on September 2, 2005, with an effective date of January 2, 2006. This designation includes Delta waterways and estuarine areas serving as migration corridors and includes Suisun Bay and New York Slough within the Action Area.

## 3.2.6 Sacramento River Winter-Run Chinook Salmon

### 3.2.6.1 Status and Biology

The Sacramento River winter-run Chinook salmon ESU was federally listed as endangered on January 4, 1994 (59 FR 440); the endangered status was reaffirmed on June 28, 2005 (70 FR 37160). The ESU includes all naturally spawned populations of winter-run Chinook salmon in the Sacramento River and its tributaries, as well as two artificial propagation programs at the Livingston Stone National Fish Hatchery (NFH) and a captive broodstock program maintained at Livingston Stone NFH and the University of California's Bodega Marine Laboratory.

Adult Sacramento River winter-run Chinook salmon enter San Francisco Bay from November through June and spawn primarily from mid-April to mid-August, peaking in May and June in the Sacramento River reach between Keswick Dam and the Red Bluff Diversion Dam (NMFS 2011). Juveniles migrate to the Pacific Ocean only after rearing in freshwater for 4 to 7 months and occur in the delta from October through early May.

### 3.2.6.2 Potential for Occurrence

Open waters within and adjacent to the Action Area provide potential habitat for upstream-migrating adult Sacramento River winter-run Chinook salmon from the winter to early summer and downstream-migrating juveniles from the fall through late spring.

### 3.2.6.3 Critical Habitat within Action Area

Critical habitat for this Chinook salmon ESU was designated on June 16, 1993 and includes within the Action Area (Suisun Bay): the Sacramento River from Keswick Dam, Shasta County, to Chipps Island at the westward margin of the Sacramento-San Joaquin Delta; all waters from Chipps Island westward to the Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait; all waters of San Pablo Bay westward of the Carquinez Bridge; and all waters of San Francisco Bay (north of the San Francisco-Oakland Bay Bridge) from San Pablo Bay to the Golden Gate Bridge (NMFS 1993).

### 3.3 ESSENTIAL FISH HABITAT

Suisun Bay waters within the Action Area including New York Slough are considered to be EFH for a variety of fish species covered under the Pacific Coast Groundfish and Pacific Salmon FMPs, including the following species associated with estuaries: leopard shark, spiny dogfish, California skate, starry flounder, English sole, and Chinook salmon. Groundfish species occur in various marine and estuarine habitats from the intertidal to the continental slope, on sand or mud bottoms, in rocky reef areas, or in the water column. Anadromous salmonids, such as Chinook and Coho salmon, are managed under the Pacific Salmon FMP. These species use freshwater streams and rivers for spawning. Young salmon then migrate to the ocean for feeding and growth, and return to their natal waters to spawn.

## 4.0 EFFECTS OF THE PROPOSED PROJECT ON FEDERALLY LISTED FISH

This section identifies potential temporary adverse effects of the proposed project on the six federally listed fish species and EFH during the Pittsburg terminal deconstruction and pile extraction. No permanent effects from the proposed project are anticipated with the implementation of avoidance and minimization measures described in Section 2.2.

### 4.1 TEMPORARY EFFECTS TO FISH FROM TERMINAL DECONSTRUCTION AND PILE REMOVAL

#### 4.1.1 Turbidity and Increased Sedimentation

The proposed project, including pile extraction using methods in the Deconstruction Plan, is expected to create temporary increases in turbidity in the adjacent water column from increased sedimentation around the piles being removed. Short-term, localized turbidity effects on anadromous salmonids may potentially interfere with visual foraging, increase susceptibility to predation, and interfere with migratory behavior. Green sturgeon may be affected but are likely less susceptible to turbidity effects than the other five federally listed fish species in this BA because they forage on bottom sediments (NMFS 2011). Minor and localized elevated levels of turbidity from pile removal will be temporary and are not expected to result in harm, injury, or behavioral responses that impair migration or make federally listed fish species more susceptible to predation.

#### 4.1.2 Contaminants

The current level of environmental contaminants in the open waters within the Action Area is unknown, but the suspension of sediments associated with removal of creosote-treated terminal piles may temporarily increase contaminant levels in the water column. However, such minor and localized elevations in contaminants should be quickly diluted to levels that are unlikely to adversely affect federally listed fish.

In the long term, removal of creosote-treated piles from the Pittsburg terminal area will have a beneficial effect on water quality in the Action Area. Pilings treated with creosote have been shown to adversely affect both hard-bottom and sediment-dwelling benthic invertebrates and fish in the San Francisco Estuary through the release of polycyclic aromatic hydrocarbons (USEPA 2008, as cited in NMFS 2011).

#### 4.1.3 Toxic Chemicals

Equipment refueling, fluid leakage, equipment maintenance, and terminal deconstruction activities from five marine contractor barges in New York Slough within Suisun Bay pose some risk of contamination of aquatic habitat and subsequent injury or death to federally listed fish species. However, due to general construction environmental protection measures identified in Section 2.2.1, risk of aquatic habitat contamination is expected to be minimal and adverse effects on federally listed fish species are not expected.

#### 4.1.4 Conclusions

The proposed project **may affect but is not likely to adversely affect** green sturgeon southern DPS, delta smelt, Central California coast steelhead DPS, Central Valley steelhead DPS, Central Valley spring-run Chinook salmon ESU, and Sacramento River winter-run Chinook salmon ESU. Although these fish species may occur in the open waters of Suisun Bay including New York Slough adjacent to the project area during terminal deconstruction and pile removal, the avoidance and minimization measures in Section 2.2 will be implemented to reduce these effects. In addition, the long-term benefits of removing the contamination source (i.e., dilapidated terminal), as well as the increase in daylighting open water and benthic habitat for these federally listed fish species after the terminal has been deconstructed, greatly outweigh any temporary adverse effects.

## 4.2 NOISE ANALYSIS OF PILE REMOVAL METHODS

LSA biologists and a senior noise specialist analyzed potential adverse effects to federally listed species in New York Slough and surrounding areas from noise associated with pile removal from derrick barges for the proposed project (Section 2.1.2). It is expected that noise levels, both underwater and above the surface, generated from vibratory pile removal or direct pull from derrick barges are significantly lower than impact pile driving.

### 4.2.1 Underwater Vibratory Pile Driver Noise

The following information is associated with pile installation whereas this project will entail extraction of piles. Vibratory installation of piles consistently produces sounds above 150 dB<sub>rms</sub>, and sometimes above 180 dB<sub>peak</sub>. However, the sounds from vibratory hammers differ from those of impact hammers not only in intensity, but in frequency and impulse energy (total energy content of the pressure wave). Most of the sound generated by impact hammers is concentrated between 100 and 800 Hz, the frequencies thought to be most harmful to aquatic animals, while the sound energy from the vibratory hammer is concentrated around 20 to 30 Hz. Additionally, during the strike from an impact hammer, the sound pressure rises much more rapidly than during the use of a vibratory hammer (Washington Fish and Wildlife Office 2012). Depending on the location of the vibratory installation, sound pressure levels may not exceed ambient sound levels. Vibratory installation of steel piles in a river in California resulted in sound pressure levels that were not measurable above the background noise created by the current.

### 4.2.2 Airborne Vibratory Pile Driver Noise

In addition to underwater noise impact, the removal of piles using vibration extraction has the potential to create noise impacts above the surface as well. In May 2013, noise measurements were gathered as part of the *Pile-Driving Noise Measurements at Atlantic Fleet Naval Installations – Final Report* (Illingworth & Rodkin, Inc. 2017). The results of the monitoring show that during pile removal, at a distance of 27 meters or 88.5 feet, maximum noise levels approached 85 dBA L<sub>max</sub>, while average noise levels approached 81 dBA L<sub>eq</sub> for the duration of the activity.



Once the distance to the sensitive receptor is determined, reference noise levels can then be adjusted for distance using the following equation:

$$Leq \text{ (at distance } X) = Leq \text{ (at ref distance)} - 20 * \log_{10} \left( \frac{X}{ref \text{ dist}} \right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA.

The nearest location for the potential of sensitive habitat is on Browns Island, north of the project site. The shoreline of Browns Island is approximately 810 feet from the project site. At this distance, noise levels would have the potential to approach 57 dBA  $L_{eq}$ . This noise level is 3 dBA below the US Fish and Wildlife accepted standard of 60 dBA  $L_{eq}$ . Once propagated to the center of the island at a distance of approximately 3,800 feet, the noise level would be reduced to 43 dBA  $L_{eq}$ .

Based on the above information, these activities are not anticipated to adversely affect aquatic species including federally listed fish (Table A) in New York Slough. Tesoro will implement avoidance and minimization measures including BMPs to minimize any effects from pile removal to federally listed species and their open water habitat (Section 2.2). Additionally, no adverse effects to bird species in the Action Area or on Browns Island are anticipated from pile removal noise (Figure 2).

### 4.3 CRITICAL HABITAT

The proposed project **may affect but is not likely to adversely affect** designated critical habitat for delta smelt, Central Valley steelhead DPS, Sacramento River winter-run Chinook salmon ESU, and Central Valley spring-run Chinook salmon ESU within the Action Area. Potential adverse effects associated with the project include temporary impacts on water quality and temporary reduction in migration and foraging areas due to turbidity generated from in-water pile removal activities. These temporary impacts are not expected to adversely affect the critical habitat for these four fish species because any effects to water quality, migration space, and foraging habitat will be temporary.

### 4.4 ESSENTIAL FISH HABITAT

The proposed project **is not likely to adversely affect** EFH for the Pacific Coast Groundfish and Pacific Salmon FMPs. Temporary, deconstruction-related effects to EFH will be avoided and/or minimized through the implementation of BMPs and other measures identified in Section 2.2. Pile removal may result in a temporary increase in turbidity and sedimentation; however, because such effects will be temporary and New York Slough within the Action Area is already turbid during storm events, this small turbidity increase should be inconsequential. Finally, the long-term benefits to EFH obtained by removing the consistent source of contamination (i.e., creosote-treated timber piles), daylighting open water, and benthic habitat outweigh any temporary adverse effects to EFH.

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## 5.0 CUMULATIVE EFFECTS

Section 7 of the FESA requires the federal action agency to provide an analysis of cumulative effects when requesting initiation of formal consultation. Cumulative effects include the effects of future State, tribal, local, or private actions not involving a federal action that are reasonably certain to occur in or adjacent to the project area. Future federal actions that are unrelated to the proposed project are not considered in this analysis, because they require separate consultation pursuant to Section 7. Federal actions may include granting a permit for a project, authorizing funds for the project, or actually implementing the project. Cumulative effects are defined as environmental change that results from the incremental effects of several projects that may be individually minor, but which become significant when considered collectively.

The proposed project will not contribute to cumulative effects on federally listed species or critical habitat within or adjacent to the Action Area. The Pittsburg terminal deconstruction is the only proposed project in the Action Area and no projects that might be permitted without federal actions (and FESA Section 7 consultations) are planned for the foreseeable future in the Action Area.

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## 6.0 CONCLUSIONS

This BA forms the basis for the conclusions on the effects of the proposed project on the 22 federally listed species in Table A. In addition, conclusions regarding effects on designated critical habitat for four of the six federally listed fish species, as well as effects on EFH, are based on the information contained herein. Effect determinations are summarized below in Table B.

**Table B: Effect Determinations for Federally Listed Species, Designated Critical Habitat, and Essential Fish Habitat Potentially Affected by the Proposed Project**

Species or Designated Habitat	Determination	Rationale
<b>Federally Listed Species (Endangered Species Act)</b>		
North American green sturgeon (southern DPS)	May affect, not likely to adversely affect	Pile removal and other terminal deconstruction effects will be minimized through the implementation of BMPs and other conservation measures, but species may occur in Suisun Bay year-round.
Delta smelt	May affect, not likely to adversely affect	Pile removal and other terminal deconstruction effects will be minimized through the implementation of BMPs and other conservation measures, but species may occur in Suisun Bay year-round.
Steelhead (Central California coast and Central Valley DPSs)	May affect, not likely to adversely affect	Pile removal and other terminal deconstruction effects will be minimized through the implementation of BMPs and other conservation measures. Species is unlikely to occur in Action Area during non-migratory time of year.
Chinook salmon (Sacramento River winter-run and Central Valley spring-run ESUs)	May affect, not likely to adversely affect	Pile removal and other terminal deconstruction effects will be minimized through the implementation of vibratory pile removal, BMPs, and other conservation measures. Species is unlikely to occur in Action Area during non-migratory time of year.
<b>USFWS-designated Critical Habitat (Endangered Species Act)</b>		
Delta smelt critical habitat	May affect, not likely to adversely affect	Temporary water quality and turbidity effects and reduction in migratory and foraging space due to pile removal will be short term in duration and will not adversely affect species' critical habitat.
<b>NMFS-designated Critical Habitat</b>		
Central Valley steelhead DPS critical habitat	May affect, not likely to adversely affect	Temporary water quality and turbidity effects and reduction in migratory and foraging space due to pile removal will be short term in duration and will not adversely affect species' critical habitat.
Sacramento River winter-run Chinook salmon ESU critical habitat	May affect, not likely to adversely affect	Temporary water quality and turbidity effects and reduction in migratory and foraging space due to pile removal will be short term in duration and will not adversely affect species' critical habitat.
Central Valley spring-run Chinook salmon ESU critical habitat	May affect, not likely to adversely affect	Temporary water quality and turbidity effects and reduction in migratory and foraging space due to pile removal will be short term in duration and will not adversely affect species' critical habitat.
<b>Essential Fish Habitat (Magnuson-Stevens Act)</b>		
Pacific Coast Groundfish and Pacific Salmon Fishery Management Plans (FMPs)	May affect, not likely to adversely affect	Pile removal and other terminal deconstruction effects will be minimized through the implementation of BMPs (e.g., controlling sediment and turbidity). Project completion will result in positive effects to EFH.

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## **APPENDIX A**

### **SPECIES LIST FROM SACRAMENTO FISH AND WILDLIFE OFFICE**

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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
San Francisco Bay-Delta Fish And Wildlife  
650 Capitol Mall  
Suite 8-300  
Sacramento, CA 95814  
Phone: (916) 930-5603 Fax: (916) 930-5654  
[http://kim\\_squires@fws.gov](http://kim_squires@fws.gov)

In Reply Refer To:

August 08, 2018

Consultation Code: 08FBDT00-2018-SLI-0331

Event Code: 08FBDT00-2018-E-00607

Project Name: Pittsburg Wharf Demolition

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-



## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**San Francisco Bay-Delta Fish And Wildlife**

650 Capitol Mall

Suite 8-300

Sacramento, CA 95814

(916) 930-5603

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## Project Summary

Consultation Code: 08FBDT00-2018-SLI-0331

Event Code: 08FBDT00-2018-E-00607

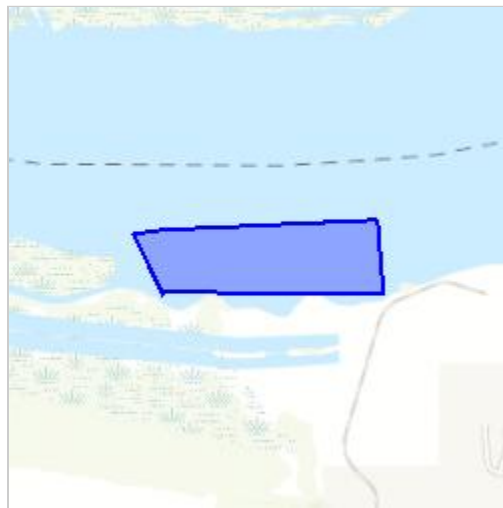
Project Name: Pittsburg Wharf Demolition

Project Type: \*\* OTHER \*\*

Project Description: Demolition of dilapidated Pittsburg Wharf including removing old piles and wharf; all work will be done from water

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.04153442050006N121.90413360013409W>



Counties: Contra Costa, CA

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## Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/613">https://ecos.fws.gov/ecp/species/613</a>	Endangered

### Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4240">https://ecos.fws.gov/ecp/species/4240</a>	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8104">https://ecos.fws.gov/ecp/species/8104</a>	Endangered

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## Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5524">https://ecos.fws.gov/ecp/species/5524</a>	Threatened
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
Delta Green Ground Beetle <i>Elaphrus viridis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2319">https://ecos.fws.gov/ecp/species/2319</a>	Threatened
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is <b>proposed</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3394">https://ecos.fws.gov/ecp/species/3394</a>	Endangered
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a>	Threatened

## Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Flowering Plants

NAME	STATUS
Antioch Dunes Evening-primrose <i>Oenothera deltoides ssp. howellii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5970">https://ecos.fws.gov/ecp/species/5970</a>	Endangered
Soft Bird's-beak <i>Cordylanthus mollis ssp. mollis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8541">https://ecos.fws.gov/ecp/species/8541</a>	Endangered

## Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> <a href="https://ecos.fws.gov/ecp/species/321#crithab">https://ecos.fws.gov/ecp/species/321#crithab</a>	Final