



**US Army Corps  
of Engineers®**

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**OAKLAND HARBOR TURNING BASINS WIDENING, CA  
NAVIGATION STUDY  
DRAFT INTEGRATED FEASIBILITY REPORT &  
ENVIRONMENTAL ASSESSMENT**

**APPENDIX D:  
REAL ESTATE PLAN**

**PREPARED FOR THE  
SAN FRANCISCO DISTRICT  
SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS**

**NOVEMBER 2021**

**PREPARED  
BY THE  
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DRAFT

## **1. Introduction:**

This draft Real Estate Plan (Appendix D) is prepared in accordance with ER 405-1-12, and supports the Oakland Harbor Turning Basins Widening Navigation Feasibility Study (Oakland Harbor Study). The study evaluated multiple variations (alternatives) and completed the Tentatively Selected Plan (TSP) Milestone on September 28, 2021. This draft Real Estate Plan describes the Recommended Plan (Alternative D-2). Additional details and adjustments to the recommended plan is expected after further engineering analysis is performed during upcoming milestones and the Pre-construction, Engineering and Design (PED) phase, thereby potentially affecting and changing the final acquisition area(s), administrative costs, and/or land costs. The details discussed below are draft and are based on currently available preliminary engineering data.

### **Non-Federal Sponsors**

A Feasibility Cost Sharing Agreement was executed on 01 July 2020 with the Port of Oakland as the non-federal sponsor. The Oakland Harbor Study is cost shared 50% federal and 50% non-federal.

## **2. Project Description:**

The Oakland Harbor Study began with the 1998 Oakland Harbor Navigation Improvement (-50-Foot) Project Study for § 203 of the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662, 100 Stat. 4098 (Nov. 17, 1986), 33U.S.C. §2231), with construction being completed in 2009. As a result of this construction, both the inner and outer harbors are maintained to a -50-foot MLLW. The Outer Harbor channel provides access to the Port of Oakland's berthing areas, which serve deep-draft vessels including container, break-bulk, bulk, roll-on/roll-off, and U.S. government vessels. The Inner Harbor Channel is maintained to this same level with the turning basin located approximately 2.5 miles from the Inner Harbor entrance. This investigation arises from inefficiencies currently experienced by vessels in the harbor, specifically the turning basins, where the current fleet exceeds the maximum dimensions of the constructed -50-foot Oakland Harbor Navigation Project. These inefficiencies are projected to continue in the future as vessel sizes are expected to increase.

The Tentatively Selected Plan (TSP) is D-2 – Inner and Outer Harbors, with beneficial placement (no SF-DODS) and electric dredges. The TSP would modify the width of the Inner Harbor Turning Basin and the Outer Harbor Turning Basin. These improvements will allow vessels to operate within the Port of Oakland more efficiently and allow large vessels to call more frequently.

## **3. Description of Land, Easements, Rights-of-Way, Relocation, and Disposal Areas (LERRDs):**

The project is located at the Port of Oakland, on the eastern side of the San Francisco Bay in the counties of Alameda and San Francisco, California. It includes the Entrance Channel –

Oakland Bar, the Outer Harbor Channel and its Outer Harbor Turning Basin, the Inner Harbor Channel, and its Inner Harbor Turning Basin.

The real estate cost estimate for the TSP was developed in accordance with ER 405-1-12 and based upon footprints delineating project requirements developed for feasibility level design by the San Francisco District Engineering Division. The Tentatively Selected Plan were reviewed for LERRDs requirements and include the types of acquisition as follows:

The Tentatively Selected Plan would require an estimated 2,500 linear feet of bulkhead, the removal and placement of 1,750,000 cubic yards of dredged material and would impact approximately 4.9 acres of fast land (land that is above the high-water mark) at the Alameda Site, 0.2 acres of fast land at Schnitzer Steel, and 2.3 acres of fast land at Howard Terminal. This totals approximately 7.4 acres of fast land. The Tentatively Selected Plan would also exercise navigational servitude, as applicable, for construction within the waterways.

For construction site access and access route: the outer harbor laydown area can be accessed via 880N/7th Street, 80W/Maritime Street, 880S/W.Grand Ave. The inner harbor can be access via 880N/Market St., 880S/Broadway Ave., 980W/12Street.

The staging areas can be located within the limits of the area impacted by construction activity. Further delineations of the areas can be considered during the next study milestones and during the PED phase of the project. Including the turning basins expansions, site access, equipment staging areas, and material staging areas, an overall estimated area of 25 acres needs to be acquired for the proposed project.

At the Alameda Site, four of the warehouse bays would be impacted.

The disposal sites for the material tentatively are Keller Canyon, Kettleman Hills and Montezuma. The dredging material that is Class II would require rehandling at Berth 10.

The non-Federal sponsors will acquire the minimum interests in real estate to support the construction and subsequent operation and maintenance of the future USACE project. We anticipate the acquisition of Channel Improvement Easements; however, Fee acquisition will be acquired if additional rights are needed for the project.

Once the project partnership agreement (PPA) process is complete, the San Francisco District Engineering Division will prepare the final design for advertisement and construction. During this process the tract register, and tract maps will be updated to reflect any modifications to include final staging areas, access requirements, construction haul routes, and recreation features. This information will be used for future crediting purposes.

#### **4. LERRDs Owned by the Non-Federal Sponsor and Crediting:**

The project proposes to widen the existing turning basins to relieve inefficiencies currently experienced by vessels in harbor, specifically the turning basins where the current fleet exceeds the maximum dimensions of the constructed -50-foot Oakland Harbor Navigation Project. The NFS is currently believed to have ownership for the lands located at Howard Terminal. Any existing ownership and existing real estate easements would have to be reviewed and verified for sufficiency to meet project requirements.

Credit will only be applied to LERRDs owned and/or held by the sponsors that fall within the “project footprint,” namely the LERRDs required for the TSP. Lands outside of the project requirements and that may be acquired for the sponsor’s own purposes which do not support the minimum interests necessary to construct, operate and maintain the Project would not be creditable LERRDs. Only land deemed necessary to construct, operate and maintain the plan would be creditable. The value of potentially creditable lands owned by the sponsors is included in the TSP’s cost estimate. We do not believe these lands have been provided for the previous project.

## 5. Standard Federal Estates and Non-Standard Estates:

The non-Federal sponsor will be required to acquire the minimum interest in real estate that will support the construction and subsequent operation and maintenance of the proposed USACE project. The following standard estates (with definitions) are identified as required for the project:

Temporary Work Area Easement (TWAE): A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_), for a period not to exceed \_\_\_\_\_, beginning with date possession of the land is granted to the United States, Sonoma County Water Agency, for use by the United States, State Coastal Conservancy and/or Santa Clara Valley Water District, its representatives, non-Federal sponsors, agents, and contractors as a (borrow area) (work area), including the right to (borrow and/or deposit fill, spoil and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the \_\_\_\_\_ Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Road Easement: A (perpetual [exclusive] [non-exclusive] and assignable) (temporary) easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_) for the location, construction, operation, maintenance, alteration replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B); <sup>1</sup> subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Fee: The fee simple title to (the land described in Schedule A) (Tracts Nos. \_\_\_\_ and \_\_\_\_), Subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Channel Improvement Easement: A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. \_\_\_\_, \_\_\_\_, and \_\_\_\_ ) for the purposes as authorized by the Act of Congress approved \_\_\_\_\_, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate; dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

## **6. Description of any Existing Federal Projects in or Partially in the Proposed Project:**

Construction of both the Oakland Harbor Navigation Improvement -42 -project and the -50-foot project were completed in 1998 and 2016, respectively. It is not anticipated that the land and real estate interests required for the proposed project covered by this report includes lands or rights provided under either the -42-foot project or the -50-foot project, for which the NFS would receive credit.

## **7. Description of any Federally owned Land Needed for the Project:**

There are no federally owned lands needed for this project, although Navigational Servitude will be employed.

## **8. Application of Navigational Servitude to the LERRDs Requirement:**

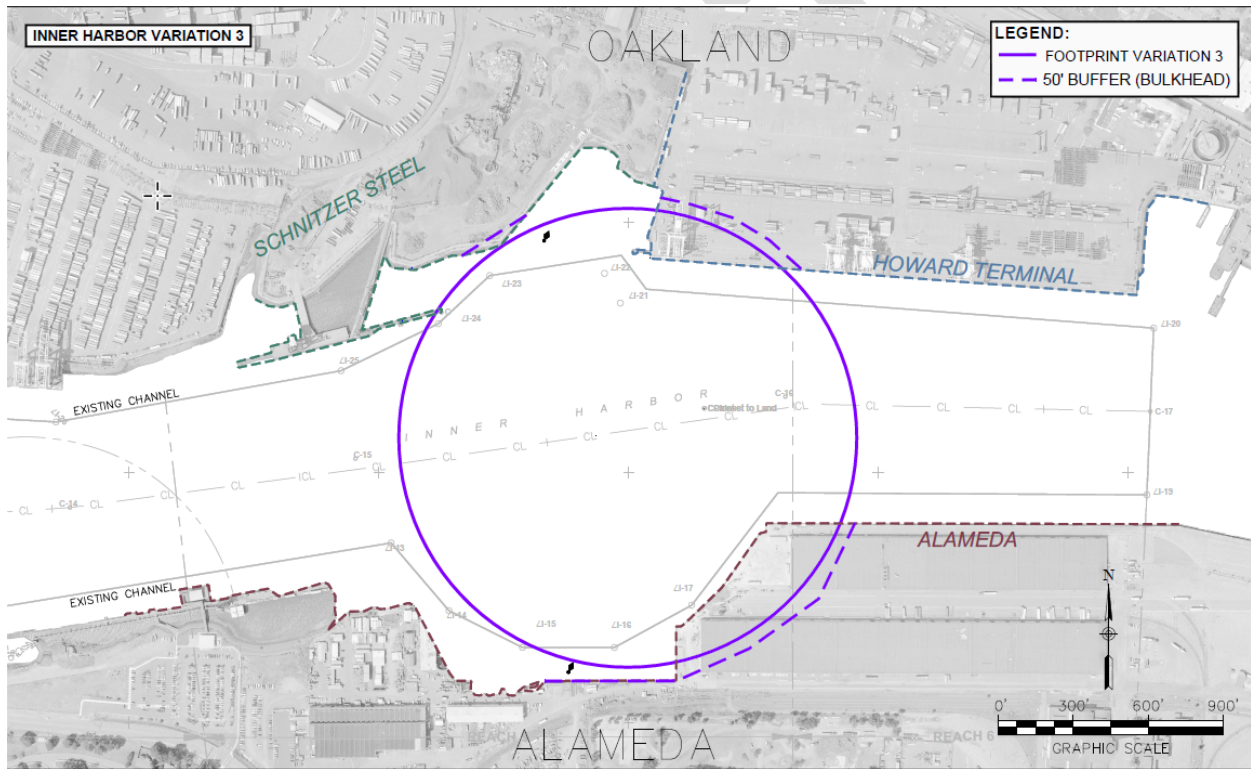
Navigation Servitude per Article I, Section 8 (Commerce Clause) will be applied in this project for the dredging of the Federal channel in the Inner and Outer Harbors where the County of Alameda owns submerged lands. It will further apply in the turning basin where private parties own some of the submerged lands.

As in the past determinations made by legal analyses showed that buildings/structures affected by construction in this area are above the mean high-water mark (MHW) and therefore do not fall within the rights of Navigation Servitude, these structures are subject to relocation assistance. Real estate requirements for the proposed Tentatively Selected Plan includes approximately 7.4 acres of fast land (Fee), 25 acres for staging that includes the expansion areas that will be converted to new waterways (TWAE).

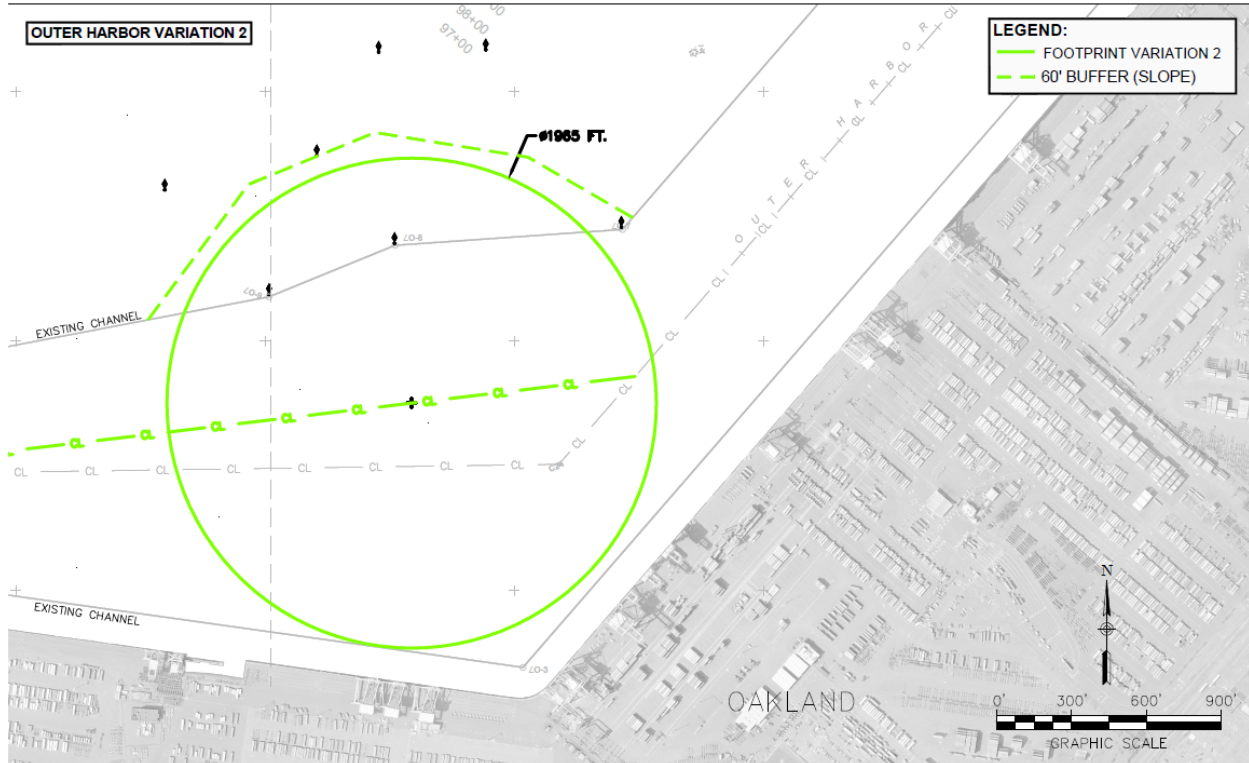
An estimated 21 acres of shallow water subtidal habitat will be affected by the project, and beneficial reuse is expected to be appropriate mitigation for the alteration of shallow water habitat. Although not typically a LERRDs cost, environmental credits may be purchased at approximately \$100,000 per acre for the project. Additional project features, (e.g., maintenance roads, ecosystem restoration, etc.), may require more real estate requirements and will be further defined as the project design develops.

An assessment of the project was completed with these criteria, and it was determined that fee simple would provide sufficient real estate interests to successfully operate and maintain the project while protecting the Federal investment.

## 9. Project Maps:







## 10. Anticipated Increased Flooding and Impacts:

There are no known anticipated flooding impacts. Any updates to H&H modeling will be included later.

## 11. Cost Estimate:

USACE Sacramento District prepared a Cost Estimate for the proposed project. The estimated cost for the Lands, Easements, and Rights-of-Way (LER) and associated administration costs is approximately \$149,477,000, and is broken down in the following tables:

Project Feature	Open Space Area (Acres)	# Ownership	Estate
Inner Harbor Turning Basin	58.25	5	Fee
Outer Harbor Turning Basin	48.08	2	Fee

<b>Inner Harbor Turning Basin and Outer Harbor Turning Basin Cost Estimate</b>	
Total Real Estate Costs w/o Contingencies	\$149,047,000
Admin Costs W/5% Contingency Embedded in Value (Non-Federal)	\$240,000
Admin Costs W/5% Contingency Embedded in Value (Federal)	\$190,000
<i>Total Real Estate Costs W/Admin Costs:</i>	<i>\$149,477,000</i>

The estimated total real estate costs will be refined through further analysis of the project footprint and through a gross appraisal. The estimated costs may change based on those conclusions.

## **12. Relocation Assistance Benefits:**

The non-Federal sponsors must comply with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 *et seq.* (P.L. 91-646, “the Uniform Act”) and provide relocation assistance to qualifying residences and businesses within the project area that are displaced, as defined in the Uniform Act, because of USACE project implementation. Possible displacements will be required for the TSP.

The sponsor has also been advised of PL 91-646 requirements to pay Fair Market Value for property as part of the acquisition necessary for the project and the requirements for documenting expenses for credit purposes.

## **13. Mineral / Timber Activity**

There are no valuable minerals impacted by this project. There was no enhancement for mineral deposits included in the cost estimate.

## **14. Non-Federal Sponsor’s Ability to Acquire:**

The non-Federal sponsor has a real estate staff to acquire the necessary real estate. Most of the real estate required for the project is already owned by the NFS, under the City of Oakland, except for the areas owned by the County of Alameda and owned by private entities.

## **15. Hazardous, Toxic, and Radiological Waste (HTRW):**

Possible HTRW conditions that could impact construction activities have been identified at the Schnitzer Steel facility. Further evaluation of the area is needed to make a final determination.

## 16. Real Estate Acquisition Schedule:

The below table shows the tentative real estate acquisition schedule:

<b>REAL ESTATE ACQUISITION SCHEDULE</b>	
<b>TASK</b>	<b>DATE</b>
Project Partnership Agreement Execution	December 2025
Sponsor’s Notice to Proceed with Acquisition	January 2026
Authorization for Entry for Construction	April 2027
Certification of Real Estate	May 2027
Sponsor Submits LERRDs Crediting Package	TBD (Based on PPA terms)
Review and Approval of Applicable LERRDs Credit	TBD (Based on PPA terms)

The following table serves as the construction/implementation schedule for the project from which the real estate acquisition schedule is based:

<b>CONSTRUCTION/IMPLEMENTATION SCHEDULE</b>	
<b>TASK</b>	<b>DATE</b>
Chief of Engineering Report Approval	July 2023
Design Agreement	October 2023
Pre-Construction Engineering & Design	October 2023 – October 2025
Project Partnership Agreement Execution	December 2025
Real Estate Acquisition	December 2025 – May 2027
Construction	June 2027 – December 2029

## 17. Description of Facility and Utility Relocations:

Cost engineering provided the following lists for potential facility or utility relocations and estimated costs associated with those relocations. The Port of Oakland currently owns the site commonly referred to as “Howard Terminal,” and received separate consideration from the other lands within the Inner Harbor Turning Basin and Outer Harbor Turning Basin for tracking purposes. Additional survey work may need to be completed to identify all facility and utility relocations required for the project.

Any conclusion or categorization contained in this report that an item is a utility or facility relocation to be performed by the non-federal sponsor as part of its LERRDs responsibilities is preliminary only. The government will make a final determination of the

relocations necessary for the construction, operation, or maintenance of the project after further analysis and completion and approval of final attorney's opinions of compensability for each of the impacted utilities and facilities.

<b>Port of Oakland/Howard Terminal Facility Utility Quantities</b>		
<b>Activity</b>	<b>Qty</b>	<b>UOM</b>
6" Sanitary Pipe Removal	425	LF
8" Sanitary Pipe Removal	200	LF
Sanitary Manhole Removal	3	EA
3" Water Pipe Removal	100	LF
4" Water Pipe Removal	500	LF
6" Water Pipe Removal	50	LF
8" Water Pipe Removal	500	LF
Fire Hydrant Removal	9	EA
12" Storm Pipe Removal	200	LF
15" Storm Pipe Removal	160	LF
18" Storm Pipe Removal	280	LF
72" Storm Pipe Removal	120	LF
Catch Basin/Storm Structure Removal	4	EA
Light Pole Removal and Relocate	1	EA

<b>Other Lands within Inner Harbor Turning Basin and Outer Harbor Turning Basin – Facility Utility Quantities</b>		
<b>Activity</b>	<b>Qty</b>	<b>UOM</b>
6" Sanitary Pipe Removal	665	LF
Sanitary Manhole Removal	4	EA
6" Sanitary Pipe Removal and Relocate	1000	LF
Sanitary Manhole Removal and Relocate	5	EA
2" Gas with Valve Removal	665	LF
2" Gas with Valve Removal and Relocate	1000	LF
Electrical Conduit with 4.16 KV Cable Removal	665	LF
Electrical Manhole Removal	4	EA
Electrical Conduit with 4.16 KV Cable Removal and Relocate	1000	LF
Electrical Manhole Removal and Relocate	5	EA
10" Water Line Removal	1050	LF
Valve Removal	6	EA
Fire Hydrant Removal	3	EA
10" Water Line Removal and Relocate	1550	LF
Valve Removal and Relocate	8	EA
Fire Hydrant Removal and Relocate	4	EA
6"-10" Storm Drain Pipe Removal	650	LF
Storm Inlet Removal	9	EA
10" Storm Drain Pipe Removal	500	LF
8" Storm Drain Pipe Removal	330	LF
Catch Basin/Storm Structure Removal	4	EA
<i>Total Utility Relocation Cost w/o Contingencies:</i>	<i>\$1,753,300</i>	
<i>Total Utility Relocation Cost W/36% Contingencies:</i>	<i>\$2,384,000</i>	

## 18. Total Estimated Costs for Project:

The total estimated costs of the Inner Harbor Turning Basin and Outer Harbor Turning Basin are as follows:

<b>LERRD Costs</b>	<b>Total</b>
LER	\$149,477,000
Relocations	\$2,384,000
Disposals	\$0
<i>Total LERRDs:</i>	<i>\$152,128,000</i>

The estimated total LER costs will be refined through further analysis of the project footprint and through a gross appraisal. The estimated LER costs (and subsequent estimated total LERRDs costs) may change based on those conclusions.