

**DEPARTMENT OF DEFENSE
UNITED STATES ARMY**

**DRAFT FINDING OF NO PRACTICABLE ALTERNATIVE FOR
PIER 2 MODERNIZATION AND REPAIR DESIGN CHANGES AT
MILITARY OCEAN TERMINAL CONCORD, CA**

1.0 Introduction

The Department of the Army (Army) proposes to modernize and repair Pier 2 at Military Ocean Terminal Concord (MOTCO), California. Elements of the proposed action must be located within the 100-year floodplain. Pursuant to Executive Order (EO) 11988, *Floodplain Management*, the Army must find that there are no practicable alternatives to the proposed implementation of the project elements sited in the 100-year floodplain and take all practicable measures to minimize harm to or within the floodplain. The practicability of a given alternative is evaluated by considering pertinent factors, such as community welfare, environmental impact, and feasibility, in light of the overall project purposes.

This preliminary finding incorporates the analysis and conclusions in the February 2015 *Final Environmental Impact Statement (EIS) for the Modernization and Repair of Piers 2 and 3 at Military Ocean Terminal Concord (MOTCO), California* and the analysis developed in the January 2017 *Supplemental Environmental Assessment (SEA) for Pier 2 Modernization and Repair Design Changes at MOTCO, California*. The incorporation of the EIS includes the agency and public review process for the EIS and April 14, 2015, Record of Decision.

MOTCO is an Army Military Surface Deployment and Distribution Command munitions and general cargo transshipment facility located in north central Contra Costa County, California. MOTCO is in the East San Francisco Bay region, approximately 10 nautical miles inland past the Carquinez Strait that connects Suisun Bay to San Pablo Bay.

2.0 Notice of Floodplain Involvement

Executive Order 11988 requires Federal agencies to determine whether a proposed action would occur within a floodplain. The 100-year floodplain represents those areas that could be inundated in the event of high flood water levels expected to occur once every 100 years from the combination of heavy rainfall, high tides, and storm surges. An engineering-level analysis of the 100-year floodplain was conducted in support of the SEA, which concluded that the 9.0 feet mean lower low water mark is the 100-year floodplain for the Pier 2 project. This is consistent with, but more precise than, Federal Emergency Management Agency Flood Insurance Rate Maps for MOTCO.

3.0 Description of the Proposed Action and Floodplain Impacts

The Record of Decision (ROD) for the Final EIS selected EIS Alternative 1 for the modernization and repair of Piers 2 and 3 at MOTCO, which included the following elements: considerable demolition of existing Pier 2 and reconstruction of structural elements, replacement of pier-side infrastructure and supporting facilities at Pier 2, upgrades to shore-side roads and electrical infrastructure in the immediate vicinity of Piers 2 and 3, repair of existing piles at Pier 3, and maintenance dredging waterward of Pier 2. As there would be no additional fill or new activities located in the floodplain, the EIS and ROD concluded that no impacts to floodplains would occur and a Finding of No Practicable Alternative (FNPA) was not relevant at that time.

As implementation of the proposed project progressed, the Army identified changes in the proposed Pier 2 layout that would result in more efficient pier operations and a reduction in construction costs. The changes to the final design warranted the preparation of an SEA specific to Pier 2 proposed actions. Whereas the EIS analysis was largely based on constructability and

preliminary concept design information, the SEA analysis uses more detailed information from the 100 percent design of Pier 2. Compared to the EIS, these changes largely included consolidating the west and forklift trestle layout to a single trestle and reducing the Pier 2 footprint (including piers and trestles), withdrawing Pier 2 maintenance dredging as a component of the project, relocating the electrical substation outside the floodplain, and additional specifics on repairs to White Road. The rest of the overall project (including all activities in relation to Pier 3) is the same as was identified in the ROD.

The final proposed action with regard to Pier 2 includes the following elements:

- Total Pier 2 final footprint of 159,225 square feet (SF), which is a reduction of 33,405 SF from the existing 192,630 SF of Pier 2;
- A 27-month construction and demolition period;
- Installation of 927 piles (793 24-inch and 134 16-inch octagonal concrete piles);
- Removal of an estimated 4,514 creosote timber piles;
- Structural rehabilitation of 36,500 SF of the east trestle (including removal of rail, removal and replacement of some pavement surface and deck panels, and other miscellaneous repairs);
- Regrading and repaving 1,350 linear feet of White Road (including raising the elevation from approximately 8 to 10 feet to 10 to 12 feet);
- Converting the current west trestle approach to a standard intersection (White Road/Anderson Road intersection);
- Consolidating the west and forklift trestle layout to a single trestle perpendicular to the west end of the main platform;
- Reconstructing 3,930 SF of the east trestle approach to smoothly transition from the trestle to White Road;
- Construction of a new electrical substation at the south end of the existing Pier 2 parking lot (with approximately 1,936 SF concrete pad foundation) with new electrical lines installed to connect the substation with existing electrical lines in a conduit installed within approximately 1.1 linear feet of existing disturbed roadbeds;
- Demolition of Building 160 and associated pavement and utilities;
- Relocation of a modular building (Building 100) from its present location on the north side of White Road near the pedestrian trestle to the Pier 2 parking area south of White Road;
- Shoreline protection, to include rock slope protection to address erosion east of the Port Chicago National Memorial and repair and integration of existing rock slope protection with the new west trestle; and
- Implementation of a Habitat Restoration Plan, including a greater than 2:1 wetlands mitigation ratio (approximately 0.57 acre restoration for the estimated 0.26-acre area of unavoidable impact to intertidal wetlands).

Assessment of Direct Impact to 100-Year Floodplain

Under the final proposed action at Pier 2, portions of the project would occur within the 100-year floodplain as shown in the enclosed figure. Specifically, the new west trestle approach, portions of the White Road repairs, the electrical feeder lines for the electrical substation, shoreline protection, and the 1.32-acre wetland restoration area would be within the 100-year floodplain. The total area of the new Pier 2 project footprint within the floodplain is estimated to be 1.05 acre. There would be approximately 6,365 cubic yards of new landside fill associated with the project, some of which would be within the 100-year floodplain. In addition, the Habitat Restoration Plan includes excavation and fill removal to restore the marsh plain within the 1.32-acre wetlands restoration area, which is also within the 100-year floodplain. The Army evaluated the action pursuant to EO 11988 and determined that there are no practicable alternatives outside of the floodplain for the siting of White Road repairs, the west trestle approach, and the electrical lines for the substation due to the existing location of Pier 2 and supporting infrastructure. Due to MOTCO's mission to serve as a transshipment facility, and thus its requirement for coastal access, it is not feasible to consider pulling all operations out of the floodplain. However, the Army has carefully considered each action proposed within the floodplain and has relocated non-floodplain-dependent project elements where practicable. Specifically, the substation was once sited within the floodplain, but was relocated outside the floodplain in the design revisions consistent with EO 11988 guidance to modify actions where practicable in order to minimize potential harm to or within the floodplain. Additionally, alternative means of construction were considered but dismissed. Specifically, the potential for the segment of White Road to be elevated above the 100-year floodplain level was evaluated, but not carried forward as the grade changes would be too severe to allow for safe transport of explosive materials with the frequent use of specialized units called reach stackers and other vehicles that weigh up to 192,000 pounds. Use of a pile-supported structure vice fill in these portions of the floodplain is the appropriate engineering solution given the transition of the trestle approach and the floodplain flow conditions along the roadway. Additionally, the proposed shoreline protection and implementation of the Habitat Restoration Plan would protect these features from flood-induced erosion.

The loss of floodplain volume would not result in an observable loss in flood carry capacity, increase in surface water elevation, or flowrates elsewhere in the basin during a storm event. Suisun Bay is an open system that can absorb storm surge over a very large area. Likewise, the drainage is well defined in this basin and there are no upstream users in Contra Costa County that would be affected by any loss of floodplain capacity.

Finally, with the application of engineering and design techniques, the minimal construction proposed to occur within the 100-year floodplain will not be vulnerable to loss or significant destruction in a storm event. The shoreline protection methods incorporated into the design of the west trestle and portions of White Road as well as implementation of the Habitat Restoration Plan would prevent excessive flood-induced erosion.

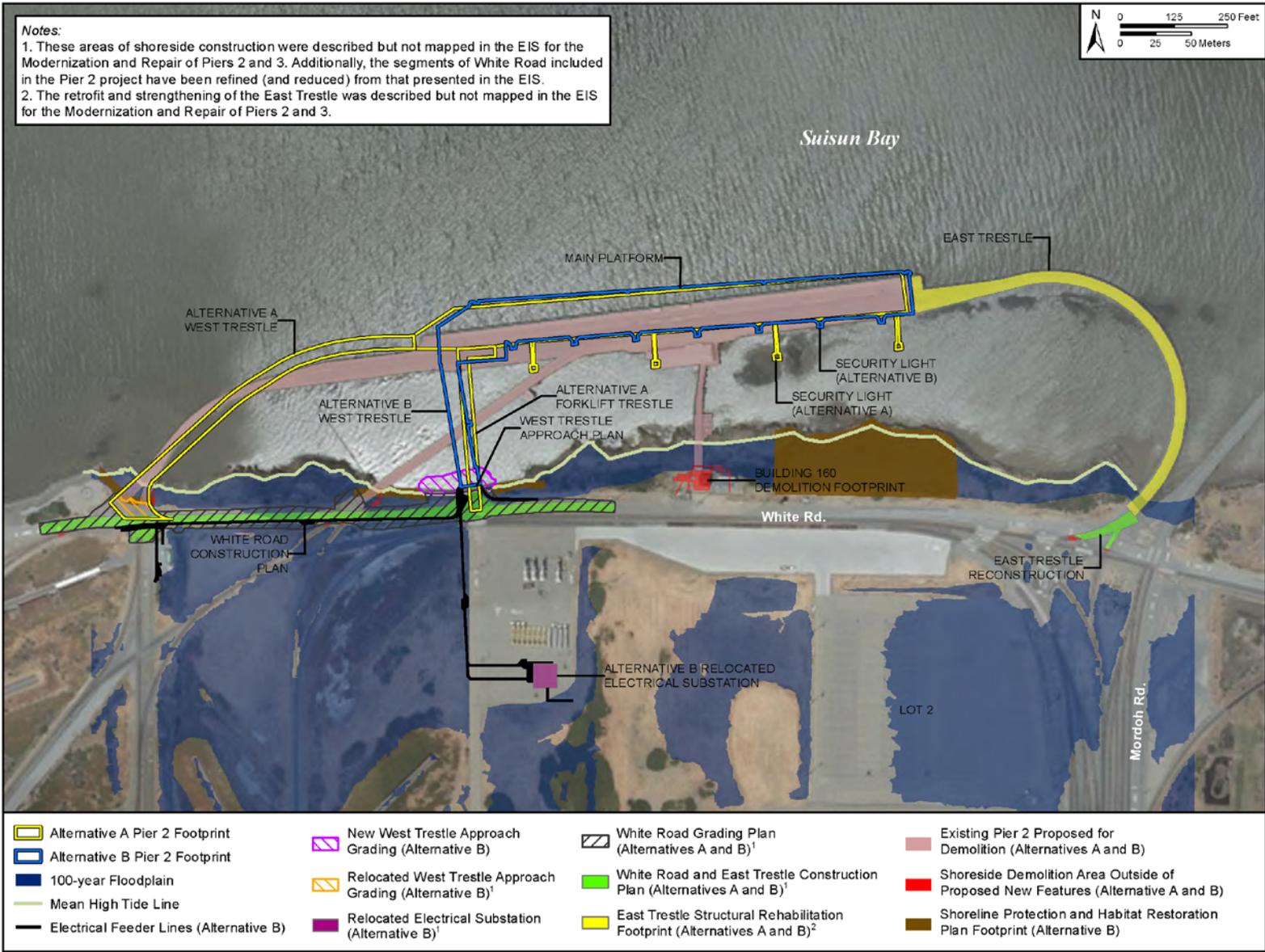
4.0 Finding

Following an evaluation of the impacts associated with the proposed action and the impacts of alternatives to implement the proposed action, I find that there is no practicable alternative to the proposed action. Furthermore, pursuant to EO 11988, and as described above, the Army will take all practicable measures to minimize impacts to and within the floodplain environment. A final decision will not be rendered until after the close of the public comment period for the SEA and until after all timely submitted comments have been considered and appropriately addressed.

Date

Mr. Paul D. Cramer
Deputy Assistant Secretary of the Army
Installations, Housing & Partnerships

Enclosure 1: 100-Year Floodplain in the Pier 2 Vicinity



Enclosure 1: 100-Year Floodplain in the Pier 2 Vicinity