



The commercial harbor for Menominee, Michigan and Marinette, Wisconsin, comprises the 2.5-mile navigable reach of the Menominee River between its mouth and the privately owned dam, and a dredged channel to open water in Green Bay.



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STUDY AREA

Menominee Harbor, Michigan & Wisconsin



* Outer Approach Channel currently maintained to maximum 300' width.

Figure 1. Menominee Harbor Existing Authorized Depths



FINAL ALTERNATIVES ARRAY

Alternative 1, the No Action alternative, is analyzed for comparison with the action alternatives. Taking no action would mean continuing current operations and restrictions at Menominee Harbor with no improvements to the Federal navigation channel. All physical conditions at the time of this analysis are assumed to remain. The No Action is the base condition to measure action alternatives.

Alternative 2 consists of deepening the Lower Reach of the Federal navigational channel to 22 feet below LWD +/- 2 feet overdepth.

Alternative 3 consists of deepening the Lower Reach of the Federal navigational channel to 24 feet below LWD +/- 2 feet overdepth.

Alternative 4 consists of deepening the Lower Reach of the Federal navigational channel to 26 feet below LWD +/- 2 feet overdepth.

Alternative 6 consist of deepening the entire Federal channel (2.7 miles) to 26 feet below LWD +/- 2 feet overdepth. Alternative 6 is also considered the sponsor supported plan.



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Figure 2. Alternatives. Note Alternative 5, which consists of deepening the harbor to 28 feet, was screened out of the final alternatives array because it was not cost efficient due to a lack of commercial transportation benefits from the additional 2 feet.



TENTATIVELY SELECTED PLAN: ALTERNATIVE 6

Authorization:
Alternative 6: Deepening upper and lower reach of the federal navigation channel to 26 Feet

553,000 cubic yards of dredged material

51,000 cubic yards of bedrock excavated

Dredged material management includes a combination of upland and open water placement.

Estimated Construction cost \$111M

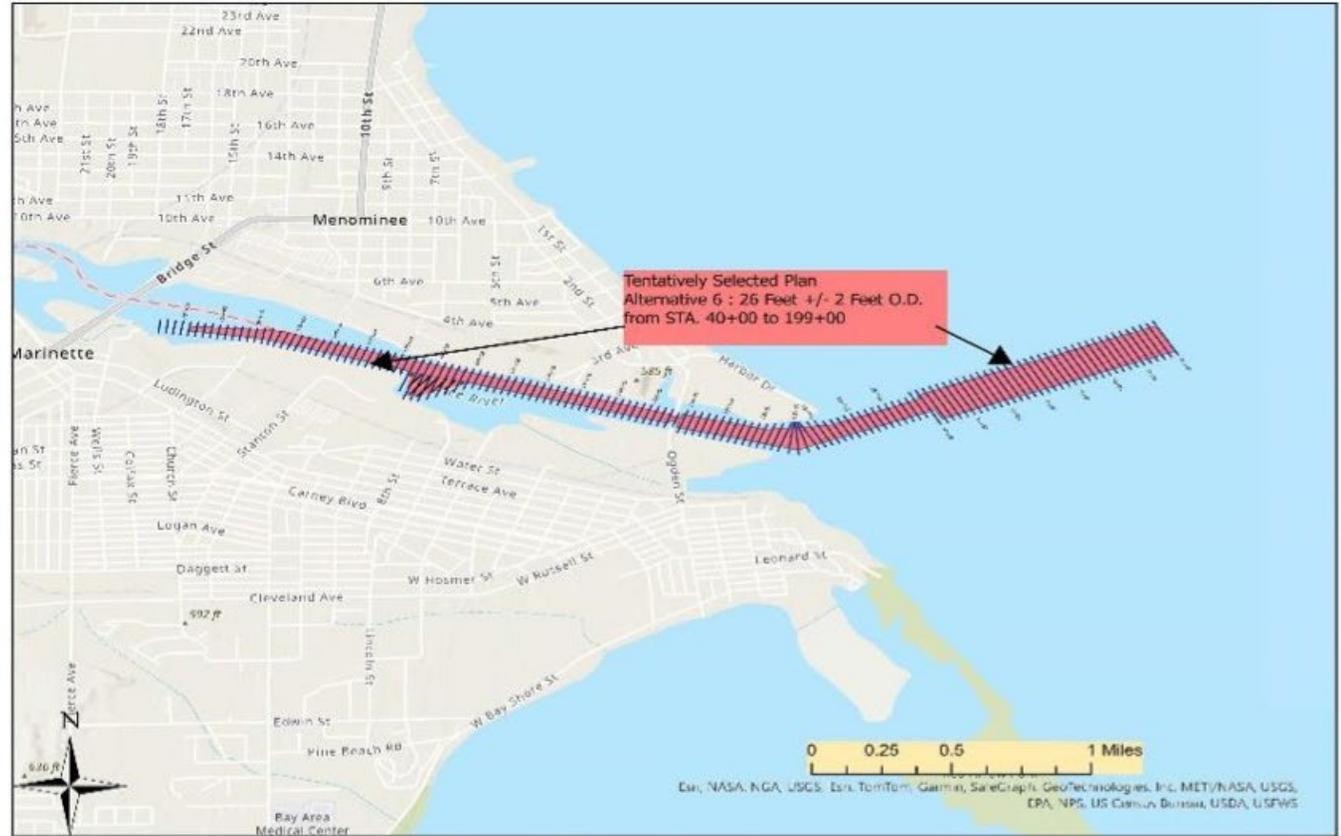
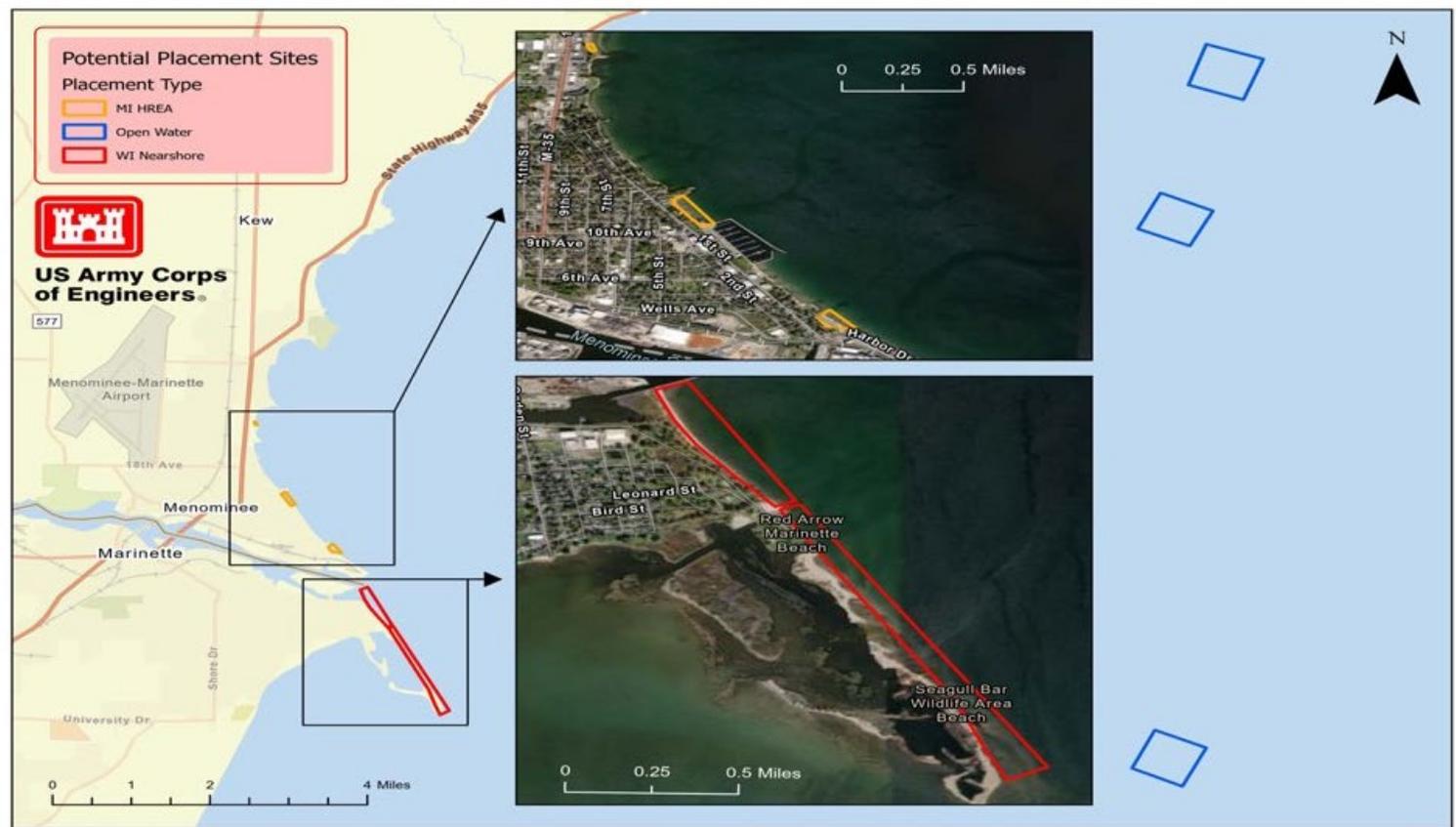


Figure 3. Tentatively Selected Plan (TSP).



DREDGED MATERIAL PLACEMENT SITES



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Figure 4. Dredged material placement sites considered. NOTE: The nearshore placement alternative was dropped from further consideration because the grain size of the dredged material was not suitable to nearshore placement.



DMMU-6

Consists of approx. 7,500 cyds
Of PFOA exceedance

DMMU-3

Consists of approx. 15,000 cyds
Of non-natural woody debris



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Dredged Material Management Units (DMMUs) of concern to the states re open-water placement.

Figure 5. Two areas where the dredged material is not considered suitable for open-water placement by both states, Michigan and Wisconsin.