



**US Army Corps
of Engineers®**

Public Notice

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**Notice No: Dunkirk Breakwater Repair
2023**

Expires: January 20, 2024

OPERATIONS AND MAINTENANCE DUNKIRK OUTER BREAKWATER REPAIR

DUNKIRK HARBOR

CHAUTAUQUA COUNTY, NEW YORK

This Public Notice has been prepared in conformance with U.S. Army Corps of Engineers (USACE) regulation, "Practice and Procedure: Final Rule for Operation and Maintenance of Army Corps of Engineers Civil Works Projects involving the Discharge of Dredged Materials into Waters of the United States or Ocean Waters," 33 Code of Federal Regulations (CFR) 337.1. Its purpose is to specify what dredged/fill materials would be discharged into waters of the United States by implementation of the proposed action, and advise all interested parties of the proposed project and to provide an opportunity to submit comments, or request a public hearing.

The proposed repair project is located on the Dunkirk Outer Breakwater within the Dunkirk Harbor. Dunkirk Harbor is a deep draft navigation project that was completed in 1943 (Figure 1). The Dunkirk Outer Breakwater shelters Dunkirk Harbor and its associated features from severe lake storms and waves. The breakwater provides necessary shelter from lake waves, allowing commercial vessels to navigate and serve industry at the harbor. In addition, the structure enables small vessels and recreational boats to navigate to and from the marina. The shoreline along Dunkirk Harbor is protected from erosion by the Outer Breakwater.

Recent breakwater inspections in August of 2022 indicated that the breakwater has deteriorated through wave action since the last repairs were made to the structure (Figures 2 and 3). Thus, the breakwater is at risk of no longer providing adequate protection to the interior of Dunkirk Harbor from severe lake storms and waves. Reconstruction of this structure is necessary to restore the breakwater to its original condition so it can provide adequate protection to the Dunkirk Harbor navigation channel and shoreline.

The Outer Breakwater is comprised of a timber crib substructure and three distinct superstructures built between 1899 and 1931 (Figures 4 and 5). Most of the breakwater superstructure consists of laid up stone, specifically from Stations (Sta) 6+00 to 11+62 and Stas 12+62 to 25+00, for a total length of 1,800 feet and crest elevation of +8.3 feet above low water datum (LWD). Notably, from Stas 11+62 to 12+62, a 100-foot repair was made in 1925 using precast concrete units as a shoreline protection experiment. The remainder of the outer breakwater from Stas 25+00 to 28+12 consists of a concrete monolith cap at a crest elevation of +10.3 feet above LWD.

The proposed repair consists of a rubble-mound overlay at two distinct reaches along the Dunkirk Outer Breakwater, reaches 1 and 2. Reach 1 extends from Sta (Sta) 6+00 to Sta 25+00. This reach is a laid-up stone super structure with a crest elevation of +8.3 feet above LWD. Reach 2 extends from Sta 25+00 to the east head of the breakwater at Sta 28+12. This reach is a concrete superstructure with crest elevation of +10.3 feet above LWD. Both reaches have a stone-filled timber crib substructure. The overlay has a crest height of +10.3 feet above LWD, which is 2 feet higher than the existing crest shown from the 1930s as-built drawings (i.e., +8.3 feet above LWD). The higher crest is specifically from Sta 6+00 to Sta 25+00. This new crest elevation was warranted for structural stability of the rubble-mound overlay and to minimize the footprint on the lakebed. In addition, the proposed repair includes a wraparound of the east head of the outer breakwater. The east end of the breakwater as-built crest elevation is +10.3 feet above LWD. The new rubble mound overlay wrap around will match the as-built elevation of +10.3 feet above LWD. The slope of the rubble mound overlay is 1-foot Vertical:2.5 feet Horizontal (1V:2.5H) along the east face on the lakeside, and then transitions to 1V:2H slope on the harborside. The total length of the eastern wrap around is approximately 315 feet (Figures 6). The proposed repair plan does not include excavation of the lakebed as the new structure will rest on the existing lakebed.

Water Quality Certification (WQC) from the New York State Department of Environmental Conservation (NYSDEC) is required to discharge this fill material, pursuant to Section 401 of the Clean Water Act. A copy of this Public Notice has been provided to NYSDEC requesting WQC for the discharges associated with this maintenance repair operation.

The New York State Office of Parks, Recreation & Historic Preservation (NYSOPRHP) Cultural Resources Information System (CRIS) was reviewed for National Register listed properties at or near the proposed maintenance repair site. No known historic properties, cultural resources, or archeologically sensitive areas were identified as per the CRIS. Additional information concerning historic properties should be submitted to the Corps before the end of the comment period of this notice.

1 1 Low Water Datum (LWD) for Lake Erie is 569.2 feet above mean sea level at Rimouski, Quebec, Canada (IGLD 1985).

The Corps will forward the submitted information to the NYSOPRHP for their review.

Based on a review of the available environmental data, we have determined that the proposed work will not affect any species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the designated critical habitat of any such species. Therefore, unless additional information indicates otherwise, no further formal consultation pursuant to Section 7 of the Endangered Species Act Amendments of 1978 will be undertaken with the U.S. Fish and Wildlife Service.

This work would be undertaken in a manner consistent, to the maximum extent practicable, with the New York State Department of State (NYSDOS) Coastal Resources Management Program. A Coastal Management Program Federal Consistency Determination has been submitted to the NYSDOS documenting this determination.

The decision whether to perform this maintenance repair project will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative factors thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

This activity is being coordinated with the following agencies, as well as other appropriate Federal, State and local agencies, Indian nations and organizations:

New York State Department of Environmental Conservation
New York State Historic Preservation Office
New York State Department of State
U.S. Coast Guard
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency

Any interested parties and/or agencies desiring to express their views concerning this proposed maintenance repair project may do so by filing their comments, in writing, no later than 30 days from the date of this notice. Any person who has an interest which may be affected by this project may request a public hearing. The request must be submitted in writing to the undersigned within 30 days of the date of this Public Notice. The request must clearly set forth the interest which may be affected, and the manner in which the interest may be affected, by this activity.

Interested parties are encouraged to contact the USACE with their comments regarding the proposed maintenance repair project. Please review this Public Notice and send your comments in writing within 30 days to the following email address:

dunkirkbwrepair@usace.army.mil

Or via regular mail to:

U.S. Army Corps of Engineers, Buffalo District
Environmental Analysis Section
478 Main Street
Buffalo, NY 14202
ATTN: Environmental Analysis – Dunkirk Outer Breakwater

This Public Notice is published in conformance with 33 CFR 337.1. All fill material discharge would be performed in conformance with Sections 313 and 404 of the Clean Water Act (33 USC 1323 and 1344, respectively).

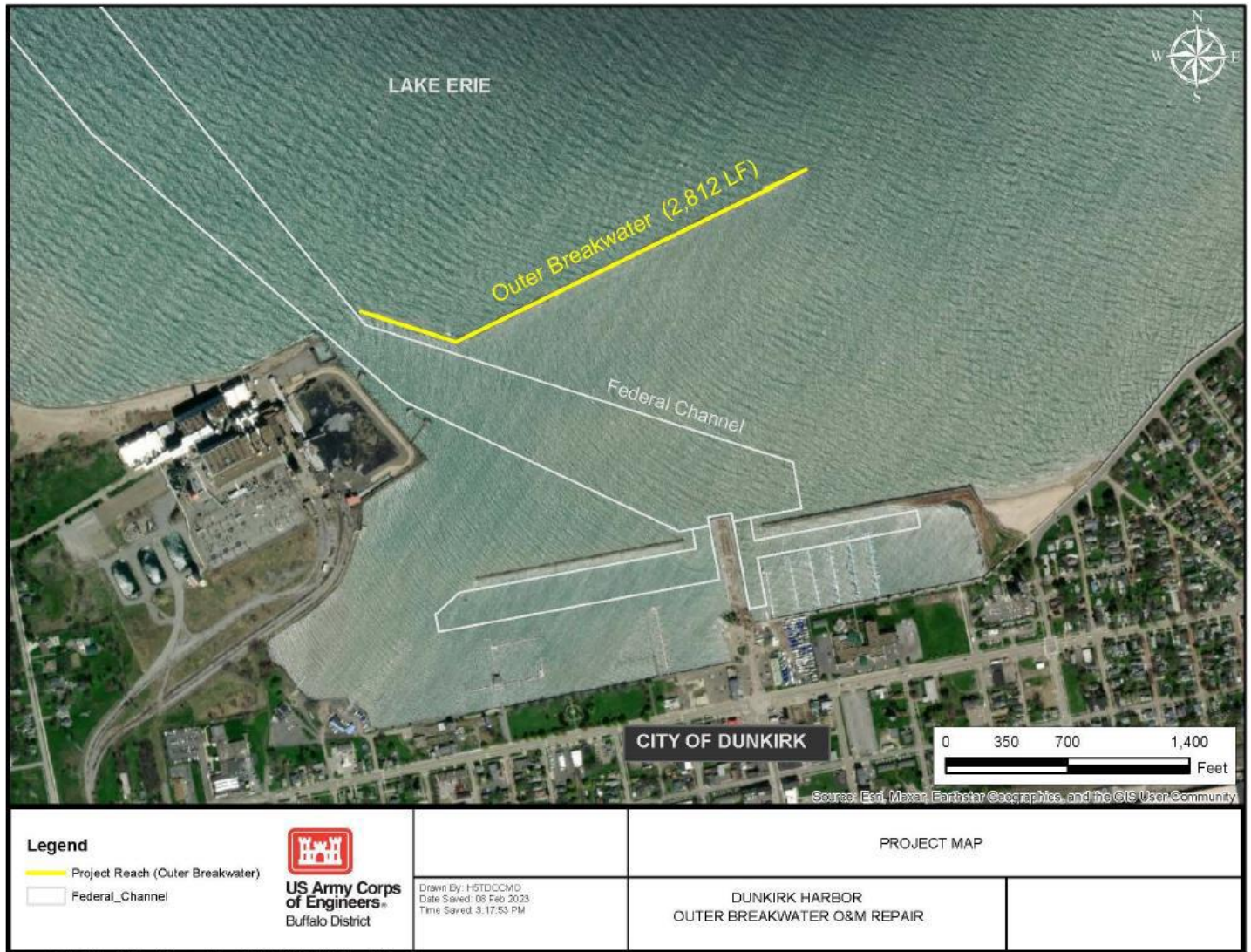


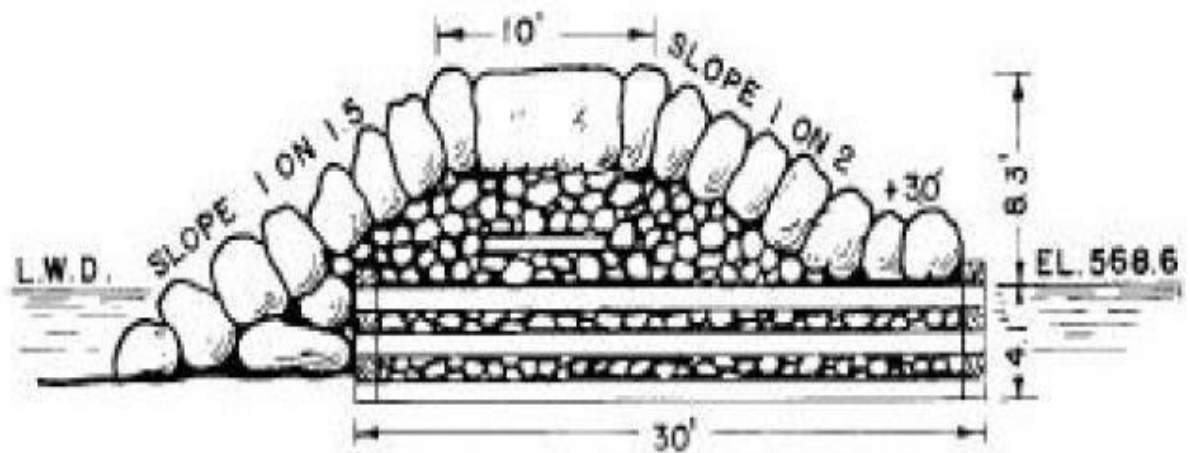
Figure 1. Map of Dunkirk Harbor and associated features.



Figure 2. Eastern head of Outer Breakwater, Dunkirk (USACE August 2022)



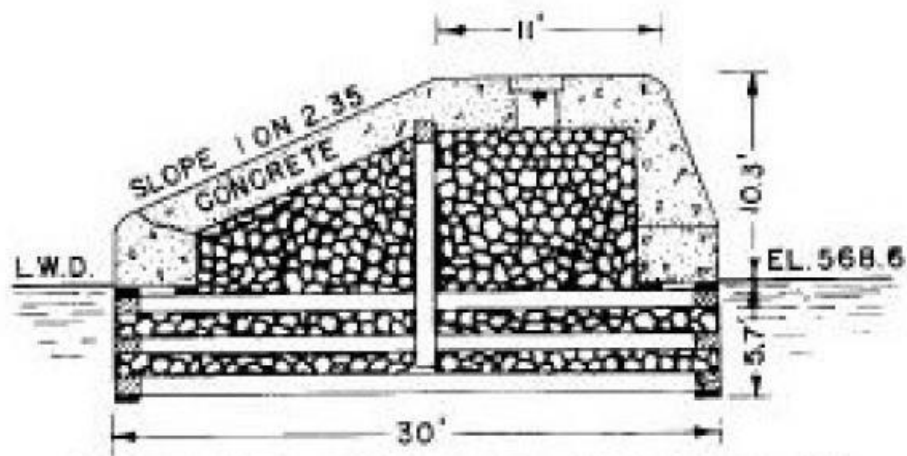
Figure 3. Eastern head of Outer Breakwater, Dunkirk (USACE 3D Model – August 2022)



SECTION OF BREAKWATER -H-

(BUILT IN 1899 STONE SUPER-STRUCTURE IN 1931)

Figure 4. Cross section of existing breakwater showing laid up stone design.



SECTION OF BREAKWATER -G-

(BUILT IN 1899)

Figure 5. Cross section of existing breakwater showing concrete monolith cap.



Figure 6. Dunkirk Proposed Repair Footprint from Station 6+00 to 20+00 (1,400 LF) & Wrap Around East Head