US Army Corps of Engineers®
Buffalo District

Operations and Maintenance

Oswego East Arrowhead Breakwater Repair

Oswego, New York

Scoping Information

EAXX-202-00-H5P-1730976381

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U.S. Army Corps of Engineers, Buffalo District

478 Main Street

Buffalo, NY 14202

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1. Introduction

Implementation of the National Environmental Policy Act (NEPA) requires that federal agencies initiate "an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action" (40 CFR 1501.7). The purpose of this scoping information is to disseminate information regarding the U.S. Army Corps of Engineers (USACE) Buffalo District's proposed plan to repair the East Arrowhead Breakwater at Oswego Harbor, New York, and to elicit any concerns or comments from any potential affected parties. This information has been prepared as part of the formal scoping process pursuant to NEPA and the Council on Environmental Quality regulations implementing NEPA (40 CFR Part 1500 et seq.).

2. Background

Oswego Harbor is a deep draft commercial harbor located at the mouth of the Oswego River, which flows into Lake Ontario about 59 miles east of Rochester, NY. It is comprised of an outer harbor (280 acres in area) created by the construction of breakwaters, and the lower half-mile of the Oswego River. Authorized depths are 21-25 feet in the outer harbor, 27 feet in the lake approach channel, and 21-24 feet in the Oswego River channel. It ranked 47th among the Great Lakes harbors based on five-year average (2007-2011) tonnage. Major stakeholders include the Port of Oswego, U.S. Coast Guard, NRG Energy, Sprague Energy Corporation, Lafarge Cement, Essroc Cement, and private marinas.

The existing project includes:

- an outer harbor formed by a system of breakwaters, including the outer west breakwater (4,515 feet long); a west arrowhead breakwater (2,700 feet long); an east arrowhead breakwater (2,200 feet long).
- a depth of 27 feet in lake approach channel from deep water in Lake Ontario to the entrance gap in the arrowhead breakwaters.
- a depth of 25 feet in the outer harbor channel which is 800 feet wide through the outer harbor from the entrance gap terminating in a turning basin, and 25 feet deep, about 750 by 1,100 feet in size at mouth of Oswego River.
- a depth of 21 feet in the remainder of the outer harbor between arrowhead breakwaters and the west outer harbor, east of Erie-Lackawanna Railroad coal dock.
- a depth of 21 feet in soft material and 22 feet in hard material in the west outer harbor, west of the east side of Erie-Lackawanna Railroad coal dock.
- a depth of 24 feet in earth and 25 feet in hard material in the river channel from the turning basin to the upstream end of Port of Oswego Authority's east side terminal, a distance of about 1,600 feet; and a depth of 21 feet in the river channel between the upstream end of Port of Oswego Authority's east side terminal and upstream limit of the federal project, at the north line of West Seneca Street.
- an outer and west harbor area where no dredging to be done within 100 feet of breakwaters and 50 feet of established harbor lines. In river channel dredging limits are established parallel to and 50 feet channel ward of established harbor lines.

- a detached breakwater which is 850 feet long at the harbor entrance where the removal of shoals occurs to a depth of 25 feet below low-water datum in approach to entrance. [1]

An overview of the harbor structures and federal navigation channel is given in Figure 1.

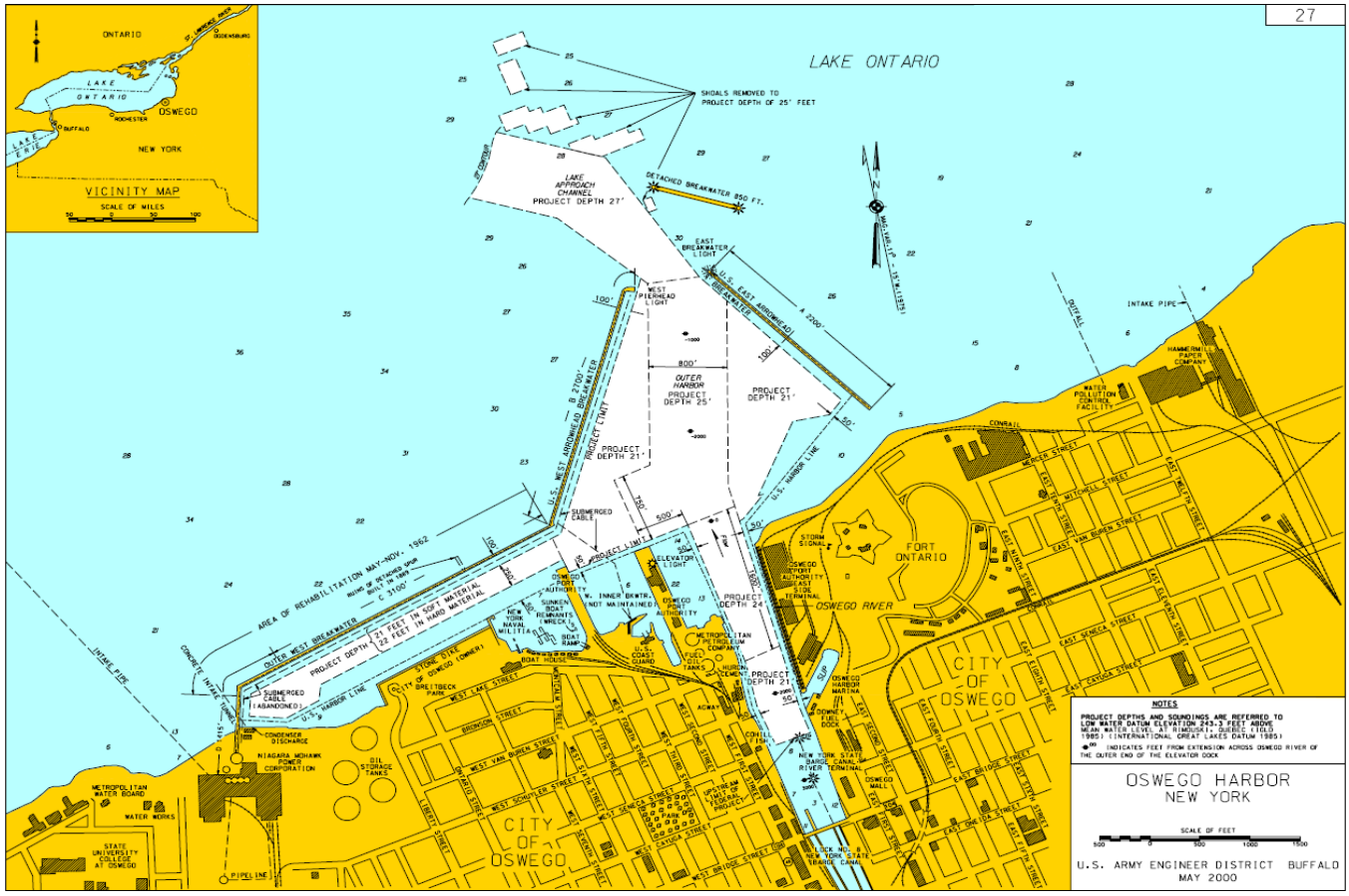

Figure 1. Oswego Harbor Overview

Oswego, NY was founded on the southern shore of Lake Ontario at the mouth of the Oswego River; at that time it possessed no natural harbor. In 1827, a project was started by the U.S. Government that extended jetties about 230 feet into the lake, one from each side of the river mouth. These jetties are 2,050 feet apart. The outer ends of these jetties were joined by a breakwater with an entrance channel of 250 feet in width. Construction of the outer breakwater began and was completed in 1882, comprising of a shore arm (910 feet), lake arm (4,871 feet), and a wing (244 feet). In 1883, spurs projecting from the lake face of the West Breakwater were constructed. In 1907, repair of the outer breakwater began by placing one-to-five-ton riprap and capping stone, which continued until 1930. In 1930, modification to the harbor system began by construction of an arrowhead breakwater system. The West Arrowhead is about 2,700 feet long and the East Arrowhead about 2,200 feet long with an entrance opening of about 650 feet. A

1 Low water datum (LWD) is 243.3 feet above mean water level at Father Point, Quebec, Canada

portion of the Outer West Breakwater was removed east of the junction with the West Arrowhead and both arrowhead breakwaters were completed by 1933

3. Need for Action

The Oswego East Arrowhead Breakwater repair plans consist only of essential repairs to allow the structure to continue to serve its intended function and does not include any additions or betterments that would constitute a change in the project's original purpose. The entirety of the of the structure has settled and been damaged since construction; however, until now funding has not yet been identified to execute repairs. Without repairs, the breakwater would ultimately fail to provide required protection to commercial and recreational harbor users. Figure 2 shows the project location in Oswego Harbor.

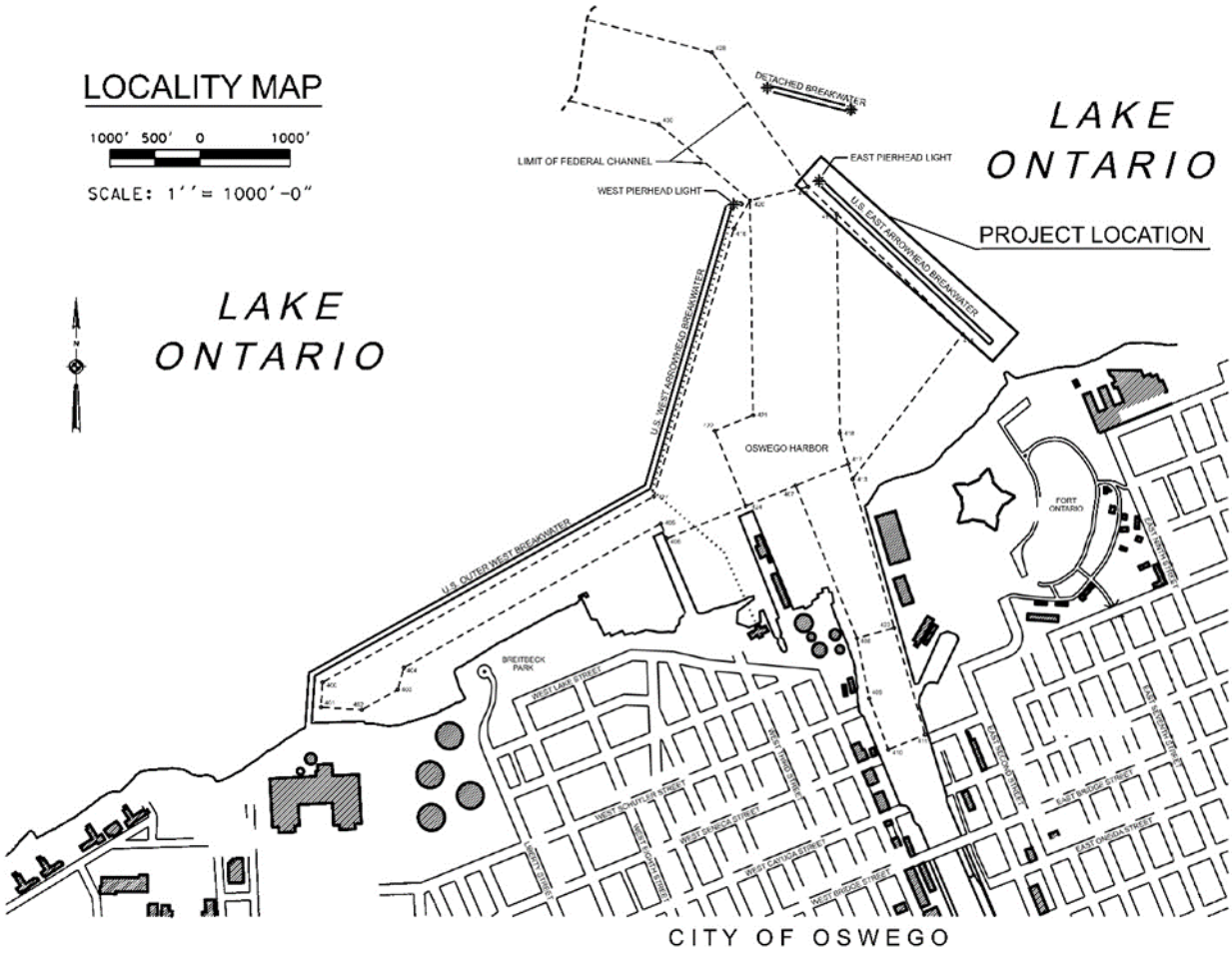

Figure 2. Project location in Oswego Harbor

4. Alternatives Under Consideration

The four repair alternatives under consideration are presented below (Table 1). The goals of the project alternatives are primarily the repair of the east arrowhead breakwater including replacing

and/or resetting the existing stones, preventing further deterioration of the timber crib, and providing better protection against wave attenuation. The alternatives are presented below.

Table 1 - Repair alternatives under consideration

Alternative	
Alternative #1 – No Action	This alternative would entail no changes to the current deteriorated east arrowhead breakwater.
Alternative #2 – Replace in Kind	This alternative would replace the east arrowhead breakwater with the existing original cut stone design. This would involve removing and replacing the existing stones with new stone fill.
Alternative #3 – Rubble Mound Overlay	This alternative would involve covering the existing breakwater with a rubble mound stone overlay. The overlay will restore the original structure crest elevation of +8 ft LWD. Given the geotechnical properties of the substrate, the overlay will rest on the existing substrate with a toe stone placed at the toe for stability.
Alternative #4 – Steel Sheet Pile (SSP) Encasement	This alternative would wrap the existing structure with steel sheet pile. This would increase the current footprint of the structure to and would necessitate substantial backfill to complete the repair.

5. Environmental Impacts

Future conditions with the no-action alternative and anticipated potential effects with the proposed action will be assessed in an environmental assessment for several social, economic, and environmental categories including:

- Biological Resources
- Recreation
- Cultural Resources
- Socioeconomics
- Transportation
- Geology & Soils
- Water Resources
- Solid Waste Management
- Contaminated Materials
- Air Quality
- Noise
- Aesthetics
- Health and Safety
- Environmental Justice

6. Public Participation and Interagency Coordination

During the scoping process, stakeholders and interested parties are invited to provide comment on the proposed action. An environmental assessment will be completed to document the

evaluation of the potential social, economic, and environmental benefits and potential adverse impacts that would result from the proposed action.

7. Compliance with Environmental Protection Statutes

a. National Environmental Policy Act. In accordance with the Council on Environmental Quality's "Regulations for Implementing the Procedural Provisions of the NEPA of 1969" (40 CFR 1500-1508) and Engineer Regulation 200-2-2 (Procedures for Implementing NEPA), the USACE will assess the potential environmental effects of the proposed action on the quality of the human environment. Using a systematic and interdisciplinary approach, an assessment will be made of the potential environmental impacts for the proposed action as judged by comparing the with-project and without-project conditions. The impact assessment process will determine if an environmental impact statement is required, or if an environmental assessment and finding of no significant impact is appropriate. This scoping document initiates the NEPA process.

b. Clean Water Act. The project will be evaluated in accordance with the guidelines promulgated by the Administrator of the U.S. Environmental Protection Agency in conjunction with the Secretary of the Army under the authority of Section 404(b)(1) of the Act. A Section 404(a) Public Notice will be issued and any party that may be significantly impacted by the project will be afforded the opportunity to request a public hearing. Under Section 401 of the Act, the USACE will request certification from the New York State Department of Environmental Conservation (NYSDEC) that the proposed discharge is in compliance with established water quality standards.

c. National Historic Preservation Act. Under Section 106 of this Act, this scoping information provides project information to the National Park Service, the New York State Office of Parks, Recreation and Historic Preservation, interested Tribal Nations, historic preservation organizations and others likely to have knowledge of, or concern with, historic properties that may be present within the area of potential effect. In the event an historic property is identified within the project's APE, a Determination of Effects would be submitted separately through the Cultural Resources Information System to initiate consultation with the New York State Office of Parks, Recreation and Historic Preservation.

d. Coastal Zone Management Act. The Act requires that federal actions reasonably likely to affect any land or water use or natural resource of the coastal zone, regardless of location, be consistent with approved state coastal management programs. A federal consistency determination will be submitted to the New York Department of State - Office of Planning and Development for their concurrence.

e. Endangered Species Act. In accordance with Section 7 of this Act, the USACE is requesting information from the U.S. Fish and Wildlife Service (USFWS) on any listed or proposed species or designated or proposed critical habitat that may be present in the project area. A check of the USFWS Information for Planning & Consultation (IPaC) website indicated the project is located within the range of the federally listed Northern Long-eared Bat (*Myotis septentrionalis*,

endangered), Bog Buck Moth (*Hemileuca maia menyanthevora*, endangered), and Monarch Butterfly (*Danaus plexippus*, candidate). Further coordination with USFWS will determine the projects effect on the listed species.

f. Fish and Wildlife Coordination Act. The USACE is coordinating this study with the USFWS and NYSDEC – Division of Fish and Wildlife. The USACE will collaborate with these agencies to identify any fish and wildlife concerns, relevant information on the study area, obtain their views concerning the significance of fish and wildlife resources and anticipated project impacts, and identify those resources which need to be evaluated in the study. Full consideration will be given to their comments and recommendations resulting from this coordination.

g. Other Coordination Requirements. In addition to the aforementioned federal statutes, the proposed project must also comply with other applicable or relevant and appropriate federal laws. Listed below are environmental protection statutes, executive orders, etc. that may apply to this project. Therefore, an additional intent of this scoping information is to disseminate pertinent project information to meet the applicable coordination/consultation requirements required under their provisions.

List of Environmental protection statues, executive orders, etc.

1. PUBLIC LAWS

a. American Folklife Preservation Act, P.L. 94-201; 20 U.S.C. 2101, *et seq.*
b. American Indian Religious Freedom Act, P.L. 95-341, 42 U.S.C. 1996, *et seq.*
c. Anadromous Fish Conservation Act, P.L. 89-304; 16 U.S.C. 757, *et seq.*
d. Antiquities Act of 1906, P.L. 59-209; 16 U.S.C. 431, *et seq.*
e. Archaeological and Historic Preservation Act, P.L. 93-291; 16 U.S.C. 469, *et seq.* (Also known as the Reservoir Salvage
Act of 1960, as amended; P.L. 93-291, as amended; the Moss-Bennett Act; and the Preservation of Historic and
Archaeological Data Act of 1974.)
f. Archaeological Resources Protection Act, P.L. 96-95 as amended, 16 U.S.C. 470aa, *et seq*.
g. Bald Eagle Protection Act; 16 U.S.C. 668.
h. Clean Air Act, as amended; P.L. 91-604; 42 U.S.C. 1857h-7, *et seq*.
i. Clean Water Act, P.L. 92-500; 33 U.S.C. 1251, *et seq*. (Also known as the Federal Water Pollution Control Act; and P.L.
92-500, as amended.)
j. Coastal Zone Management Act of 1972, as amended, P.L. 92-583; 16 U.S.C. 1451, *et seq*.
k. Comprehensive Environmental Response, Compensation, and Liability Act, P.L. 96-510, 42 U.S.C. 9601, *et seq*.
l. Endangered Species Act of 1973, as amended, P.L. 93-205; 16 U.S.C. 1531, *et seq*.
m. Energy Independence and Security Act, P.L. 110-140, 42 **U.S.C**. 15821, *et seq*.
n. Energy Policy Act, P.L. 109-58, 42 **USC** 13201, *et seq*.
o. Estuary Protection Act, P.L. 90-454; 16 U.S.C. 1221, *et seq*.
p. Farmland Protection Policy Act, P.L. 97-98, 7 U.S.C. 4201, *et seq*.
q. Federal Environmental Pesticide Control Act, P.L. 92-516; 7 U.S.C. 136.

r. Federal Water Project Recreation Act, as amended, P.L. 89-72; 16 U.S.C. 460-1(12), *et seq*.
s. Fish and Wildlife Coordination Act of 1958, as amended, P.L. 85-624; 16 U.S.C. 661, *et seq*.
t. Historic Sites Act of 1935, as amended, P.L. 74-292; 16 U.S.C. 461, *et seq*.
u. Land and Water Conservation Fund Act, P.L. 88-578; 16 U.S.C. 460/-460/-11, *et seq*.
v. Migratory Bird Conservation Act of 1928; 16 U.S.C. 715.
w. Migratory Bird Treaty Act of 1918; 16 U.S.C. 703, *et seq*.
x. National Environmental Policy Act of 1969, as amended, P.L. 91-190; 42 U.S.C. 4321, *et seq*.
y. National Historic Preservation Act of 1966, as amended, P.L. 89-655; 16 U.S.C. 470a, *et seq*.
z. Native American Graves Protection and Repatriation Act, P.L. 101-601, 25 U.S.C. 3001, *et seq*.
aa. Native American Religious Freedom Act, P.L. 95-341; 42 U.S.C. 1996, *et seq*.
bb. Noise Control Act, P.L. 92-574, 42 U.S.C. 4901, *et seq*.
cc. Resource Conservation and Recovery Act of 1976, P.L. 94-580; 42 U.S.C. 6901 et seq.
dd. River and Harbor Act of 1899, 33 U.S.C. 403, *et seq.* (also known as the Refuse Act of 1899)
ee. Toxic Substances Control Act, P.L. 94-469; 15 U.S.C. 2601, *et seq.*
ff. Watershed Protection and Flood Prevention Act, as amended, P.L. 83-566; 16 U.S.C. 1001, *et seq.*
gg. Wild and Scenic Rivers Act, as amended, P.L. 90-542; 16 U.S.C. 1271, *et seq.*

2. EXECUTIVE ORDERS

a. Executive Order 11593, *Protection and Enhancement of the Cultural Environment*, May 13, 1979
b. Executive Order 11988, *Floodplain Management*, May 24, 1977
c. Executive Order 11990, *Protection of Wetlands*, May 24, 1977
d. Executive Order 11514, *Protection and Enhancement of Environmental Quality*, March 5, 1970, as amended by Executive Order 11991, May 24, 1977
e. Executive Order 12088, *Federal Compliance with Pollution Control Standards*, October 13, 1978
f. Executive Order 12372, *Intergovernmental Review of Federal Programs*, July 14, 1982
g. Executive Order 12580, *Superfund Implementation*, January 23, 1987
h. Executive Order 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*, August 3, 1993
i. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, February 11, 1994
j. Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, April 21, 1997
k. Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10, 2001
l. Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007

m. Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009

3. OTHER FEDERAL POLICIES

a. Council on Environmental Quality Memorandum of August 11, 1980: Analysis of Impacts on Prime or Unique
Agricultural Lands in Implementing the National Environmental Policy Act
b. Council on Environmental Quality Memorandum of August 10, 1980: Interagency Consultation to Avoid or Mitigate Adverse Effects on Rivers in the National Inventory
Migratory Bird Treaties and other international agreements listed in the Endangered Species Act of 1973, as amended, Section 2(a)(4)

8. Request for Comments

The purpose of the scoping process is to provide an opportunity for the public and government agencies to comment and provide input to help identify issues related to the proposed project to be addressed in the environmental assessment. If, after this evaluation, it is concluded that the proposed project would have no significant environmental impacts and an environmental impact statement is not required, the USACE Buffalo District Commander will sign a finding of no significant impact (FONSI).

Interested parties are encouraged to contact USACE - Buffalo District with their comments and recommendations regarding the repair of the East Arrowhead breakwater for Oswego Harbor. Please review the study information and send your comments or recommendations in writing within thirty (30) days to the following e-mail address:

Oswego@usace.army.mil

Or via U.S. mail:

U.S. Army Corps of Engineers, Buffalo District
Environmental Analysis Team
478 Main Street
Buffalo, NY 14202