US Army Corps of Engineers
Buffalo District
BUILDING STRONG®

Operations and Maintenance
Rocky River East Pier Repair in Lakewood, OH

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National Environmental Policy Act Scoping Information & Clean Water Act Section 404(a) Public Notice

Buffalo District, U.S. Army Corps of Engineers

478 Main Street

Buffalo New York, 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.” The purpose of this scoping document is to disseminate information regarding the U.S. Army Corps of Engineers (USACE) proposed Rocky River East Pier (“East Pier”) Repair project, and to elicit any concerns of potential affected parties. This information has been prepared in accordance with Department of Defense NEPA Implementing Procedures (2025).

Additionally, this scoping document serves as the public notice pursuant to Section 404(a) of the Clean Water Act (CWA). It is being administered in conformance with 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. The purpose of this public notice 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 federal repair project is located on the Rocky River East Pier (Figure 1). Rocky River Harbor is in Cuyahoga County, Ohio, along the southern shore of Lake Erie at the mouth of the Rocky River, roughly eight miles West of Cleveland metropolitan area. The Rocky River Harbor was authorized by the 1872, 1937, and 1965 River and Harbor Acts. The existing East Pier is 900 feet in length and is adjacent to an entrance channel that is 100 feet wide and 10 feet deep. The proposed repair of the East Pier would be conducted under USACE operations and maintenance authority, as amended by the Water Resources Development Act (WRDA) 2022 Sec. 8101 (authorizing a repair or maintenance activity at a jetty or breakwater to exceed its original authorized dimensions to ensure the structure meets its authorized purpose, including protecting a project from changes in wave action or height). The pier protects the entrance channel to the Rocky River from shoaling and waves. The Rocky River harbor is a shallow draft recreational harbor serving a public Metro Park with a recreational boat launch, the private Cleveland Yachting club, seasonal charter boats, and private homes overlooking Rocky River and Lake Erie.

2 Need for Action

The East Pier provides protection for the Rocky River Harbor entrance channel. The laid-up and rubble mound stone structure was constructed in phases in 1879, 1881, and 1941; and the last rehabilitation was completed in 2000. The 2000 repair of the pier involved extensive stone replacement and structural upgrades across three main segments: the Outer Light, Outer Leg, and Inner Leg, focusing on the lake-facing side of the pier. For all sections, the repair raised the

crest elevation to +8.5 feet LWD[1] and used a consistent 1V:2H slope on the lake-facing side. Following the 2000 repair, the structure has experienced continued deterioration from prolonged exposure to wave action and seasonal ice damage.

The 2024 breakwater inspection of the structure by USACE indicated that the structure crest height had reduced below the design crest height of +10 LWD, sporadic presence of voids, as well as missing armor stone. A field investigation conducted by Stantec on April 29, 2025, confirmed that much of the 2000 repair remains intact on the lake-facing side slope of the structure (Stantec, 2025). However, significant vegetation overgrowth, woody debris accumulation, and slope degradation were observed, particularly along the channel side of the pier and southern reach near Clifton Beach. If this damage is not addressed, the pier's compromised condition threatens its ability to carry out its authorized purpose of protecting the harbor to ensure safe navigation into Rocky River Harbor and to protect nearby shoreline assets. The USACE has identified the need for a resilient repair of the Rocky River East Pier that can withstand the environmental conditions of Lake Erie, including ice loading and wave action.

Figure 1. Proposed Project Location

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

3 Proposed Project

The proposed action (Alternative 2) consists of constructing a rubble-mound armor stone overlay along the full 900-foot channel-facing side of the pier (Figure 2). The 2000 rehabilitation effort addressed only the beach-facing side of the structure, leaving the channel side largely unrepaired. Over time, the channel-facing slope has been exposed to waves, currents, and ice action and now shows the most significant signs of degradation. For this reason, the current design targets the channel side to restore structural stability using modern engineering and loading criteria. The overlay would be built at a shallower, more stable design slope of 1V:2.5H, with updated crest elevations that satisfy current wave, water-level, and ice-loading requirements (Figure 3).

The resulting footprint exceeds the original breakwater dimensions because the elevated crest height and shallower 1V:2.5H design slope provides greater resistance to wave and ice forces, improving long-term structural stability. Achieving this more robust slope geometry requires a wider base than the original, steeper configuration. The total additional repair area covers approximately 36,000 square feet, encompassing the entire channel-side overlay and the associated beach-side taper.

The work would be executed using marine construction methods, with armor stone placement performed from a barge. The estimated armor stone quantity for the proposed action (Alternative 2) – comprising the full channel-side armor stone overlay including buffers for volume loss and neat line tolerances – is approximately 25,000 tons of stone (15,400 cubic yards (CY)). A detailed distribution of armor stone tonnage across the full length of the structure is provided in Table 1. The modifications to the armor stone slope and resulting thickness would result in a medium-to-high change in the structure's footprint. Although the armor stone tonnage required for the proposed action results in a moderate-to-high construction cost, the continuous overlay of well-graded armor stone is expected to reduce long-term maintenance and provide a design life extension of roughly 20 to 50 years.

Table 1. Proposed placement of stone on Rocky River East Pier (Alternative 2)

Start Station	End Station	Length (feet)	Armor Stone (Ton)
10+50	11+00	50	759
11+00	12+00	100	2697
12+00	12+50	50	1490
12+50	13+00	50	1506
13+00	14+00	100	3028
14+00	15+00	100	3013
15+00	15+50	50	1506
15+50	16+00	50	1337
16+00	17+00	100	2353
17+00	18+00	100	2292
18+00	19+00	100	2201
19+00	20+00	100	2336
20+00	20+25	25	483
	Totals	975	25,000

Figure 2. Rocky River East Pier Proposed Repair Footprint Station 10+50 to 20+25

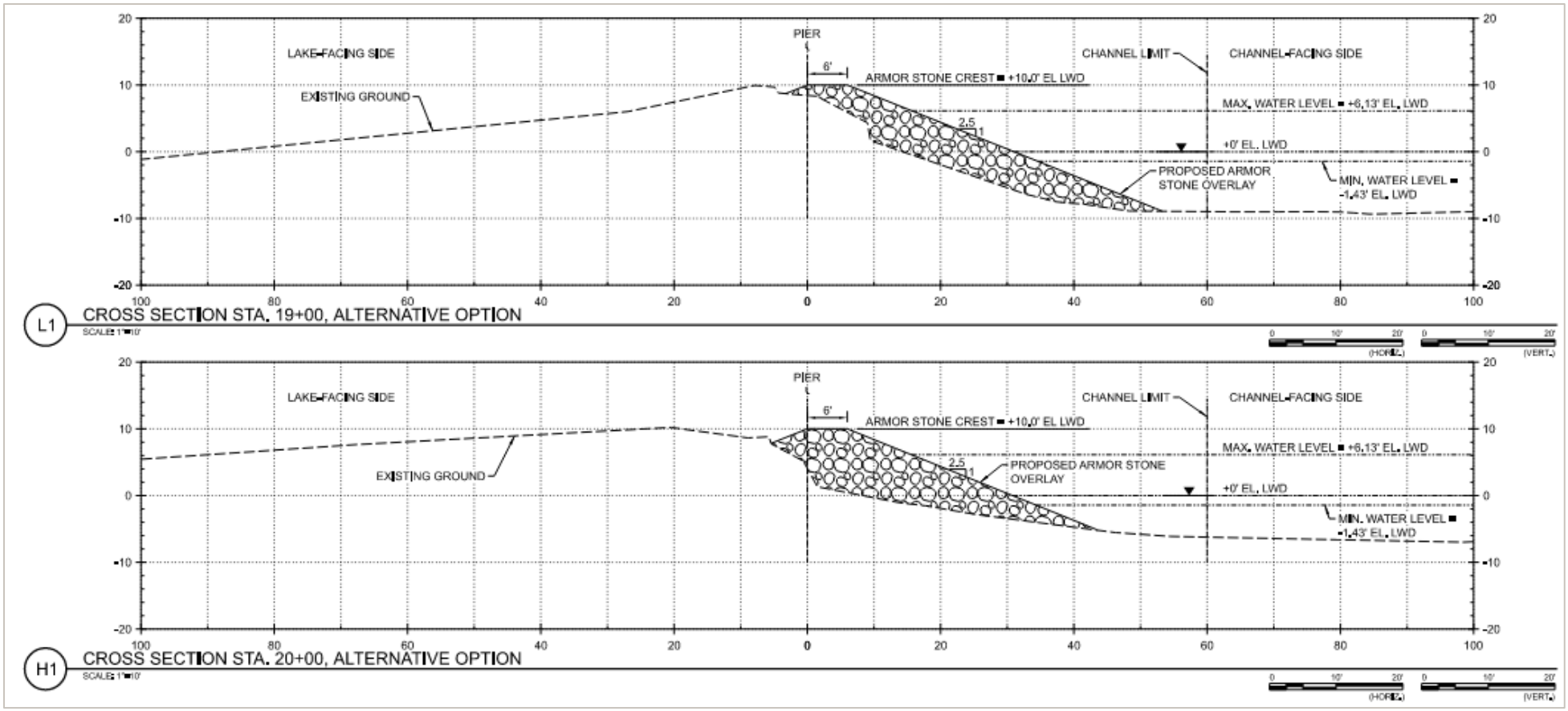

Figure 3. Typical Repair Section (STA 19+00 and STA 20+00)

3.1 Project Alternatives

3.1.1 Alternative 1 (No Action)

The No Action alternative serves as a baseline for comparison for other alternatives. Under this alternative the Rocky River East Pier would remain in its current state with only routine maintenance activities. This alternative does not serve the intended navigational purpose of the Rocky River East Pier and would result in continued deterioration of the breakwater. Without intervention, the structure will remain exposed to damaging wave forces and weathering, ultimately compromising navigation safety and the structural integrity of the pier.

3.1.2 Alternative 2 (Proposed Action)

This alternative proposes constructing a rubble-mound armor stone overlay along the full 900-foot channel-facing side of the pier. Alternative 2 is the proposed action as it provides greater resistance to wave and ice forces, improving long-term structural stability. Further details and justification for this alternative can be found in Section 3.

3.1.3 Alternative 3 (Repair In Kind)

This alternative proposes reconstructing the pier using materials and geometries similar to those used in the most recently known repair in 2000 (Figure 3). The 2000 repair of the pier involved extensive stone replacement and structural upgrades across three main segments: the Outer Light, Outer Leg, and Inner Leg. For all sections, the repair raised the crest elevation to +8.5 feet LWD and used a consistent 1V:2H slope on the lake-facing side. This alternative would include removal of woody debris and vegetation, minor regrading, and placement of new armor stone to match the 2000 design templates. No modifications to crest elevation, armor stone sizing, or slope geometry are proposed under this alternative.

3.1.4 Alternative 4 (Rubble Mound Overlay Along Localized Areas)

This alternative proposes a similar approach to the proposed action (Alternative 2) but uses a targeted rubble-mound overlay to rehabilitate specific areas of structural degradation identified during field inspections. Areas targeted for repairs include the channel-facing side slope of the Inner and Outer Legs where existing armor has displaced or degraded, a total extent of approximately 400 to 500 linear feet. Alternative 4 would require 15,000 tons (9,300 CY) of armor stone placement. The removal of woody vegetation and accumulated debris is required to restore access to the structure and prepare a stable foundation for stone placement.

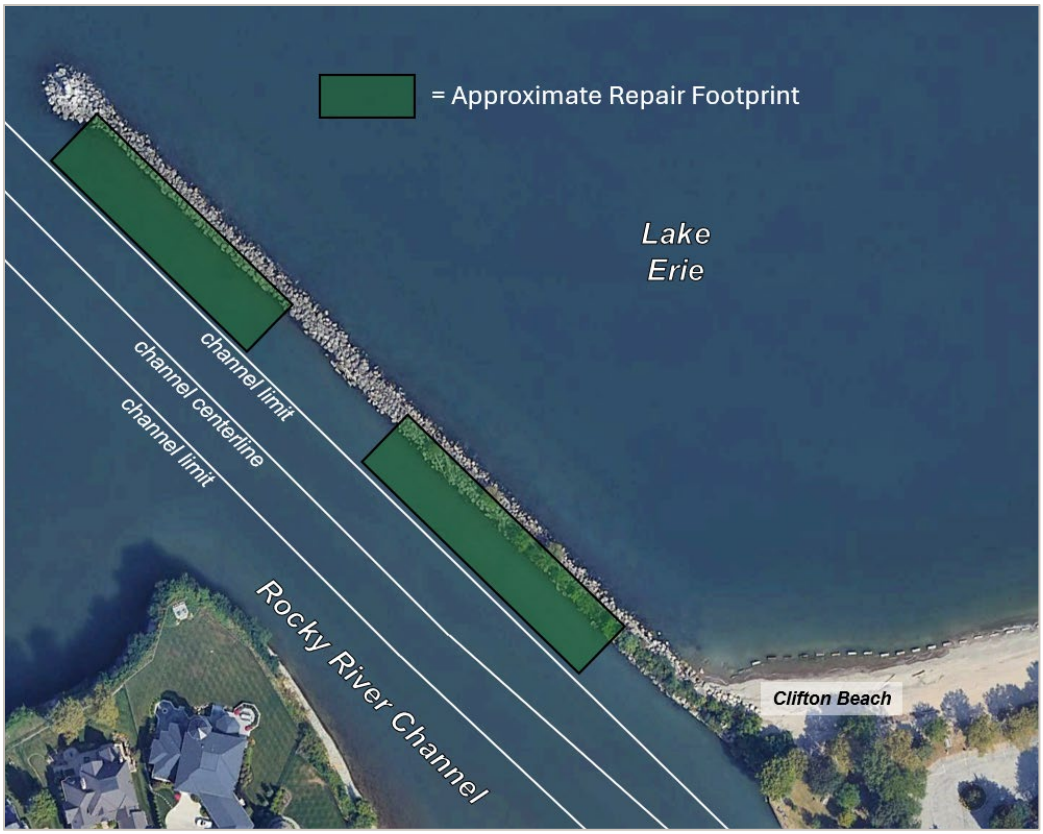

Figure 4. Conceptual Plan View of the Alternative 4

New armor stone would be installed over the existing structure in the areas shown in Figure 4, focusing on the channel-facing side slope, at a recommended slope (i.e. 1V:2.5H) to restore mass stability. This Alternative would reestablish interlocking between units by improving the gradation of armor stone units. In the localized areas of armor stone application, modest increases in crest elevation may be incorporated to enhance structural resilience under design wave and ice loading conditions. Alternative 4 would enhance the resilience and operational life of the structure beyond what's been previously observed following the 2000 repairs. However, the rubble mound overlay would be limited to most degraded areas, making the structure less resilient to future wave action and ice loading than Alternative 2.

3.1.5 Alternative 5 (Steel Sheet Pile Encasement)

This alternative involves removal of woody debris and vegetation and encasing the existing structure in steel sheet piling. Voids would be backfilled and anchorage or tiebacks installed as needed to ensure stability. Although this approach may offer structural containment and efficient use of existing material, potential drawbacks include increased wave reflection off the sheet pile surface. The uniform surface of the steel encasement could cause wave reflection, which may lead to hazardous conditions for vessels navigating within the harbor. The design would require a significant expansion of scope to address geotechnical concerns and foundation stability, making it the most complex alternative under consideration. This alternative may also require the largest increase to the structure footprint depending on factors such as the quantity of fill

material needed, whether it can be sourced through beneficial use of dredged materials, and the potential to recycle existing stone.

4 Impact Assessment

Future conditions and anticipated potential effects of the proposed repair project and alternatives will be assessed and compared to a No Action Alternative. The No Action Alternative represents the anticipated condition that may result from the USACE taking no action to complete the East Pier repair.

The alternatives will be evaluated for several social, economic, and environmental categories, including:

- Fish and Wildlife Resources
- Water Quality
- Geology and Soils
- Contaminate Materials
- Air Quality
- Noise
- Recreation
- Aesthetics
- Historic Properties
- Property Values and Tax Revenues
- Employment
- Community Cohesion and Growth
- Transportation
- Public Facilities and Services
- Health and Safety

5 Public Participation and Interagency Coordination

Throughout the scoping and public notice process, stakeholders and interested parties are invited to provide comment and/or request a public hearing on the proposed alternatives that will be evaluated as part of the Operations and Maintenance (O&M) support to the East Pier repair project. An environmental assessment will be completed to document the evaluation of any potential social, economic, and environmental benefits and potential adverse impacts that may result from the final array of alternatives.

The East Pier repair designs have been based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. This reflects the national concern for both protection and utilization of important resources. The benefit which is reasonably expected to accrue from the proposal has been balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal have

been considered including the cumulative factors thereof; among those 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 and organizations:

- Ohio Department of Natural Resources
- Ohio Environmental Protection Agency
- Ohio Historic Preservation Office
- U.S. Department of the Interior, Fish and Wildlife Service
- U.S. Environmental Protection Agency

6 Compliance with Environment Protection Statutes

6.1 Applicable Environmental Protection Statutes

The East Pier repair has been evaluated for compliance with all other applicable environmental protection statutes, executive orders, *etc*. including:

Clean Water Act, as amended (Federal Water Pollution Control Act Amendments of 1972) (33 USC 1251 et seq.). 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. This document serves as a Section 404(a) Public Notice affording any party that may be significantly impacted by the project the opportunity to request a public hearing. Following Section 404(a) public notice, a Section 404(b)(1) Evaluation will be completed for the proposed discharge of fill material into Lake Erie. Under Section 401 of the Act, the USACE will request certification from the Ohio Environmental Protection Agency that the proposed discharge is in compliance with established water quality standards.

Coastal Zone Management Act of 1972, as amended (16 USC 1451 et seq.). The proposed action is an ongoing federal activity that was initiated prior to the Ohio Coastal Management Program and does not involve changes to the specific purpose of the project. The Ohio Department of Natural Resources does not require Coastal Zone Management Act federal consistency review when the repair is limited to maintaining or rebuilding the structure. Therefore, the repair has been determined to be in compliance with this act.

Clean Air Act, as amended (40 CFR, Subpart B, 42 USC 7401 – 7671 g). The project area is a nonattainment area for ozone thresholds per the 2015 USEPA guidelines. Due to the project area's nonattainment status for Ozone, a Record of Non-Applicability (RONA) will be completed to demonstrate that the precursors to ozone (NOX and VOC emissions) will not exceed the current thresholds.

Endangered Species Act of 1973, as amended (16 USC 1531 et seq.). In accordance with Section 7 of this Act, 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. If this consultation with USFWS identifies any such species or critical habitat, then USACE will conduct a biological assessment to determine the proposed project's effect on these species or critical habitat.

The USFWS web sites and Information for Planning Consultation ([https://ecos.fws.gov/ipac/], accessed August 2025) have been reviewed to generate the following list of federally threatened and endangered species that are/or may be present at the project location:

- Indiana Bat (*Myotis sodalist*); Federally Endangered
- Monarch Butterfly (*Danaus plexippus*); Proposed Threatened
- Red Knot (*Calidris canutus rufa*); Federally Threatened

Fish and Wildlife Coordination Act (16 USC 661 et seq.). The USACE is coordinating this proposed project with the USFWS to identify any fish and wildlife concerns, identify relevant information on the proposed project area, obtain their views concerning the significance of fish and wildlife resources and anticipated project impacts, and identify any additional resources which need to be evaluated. Full consideration will be given to their comments and recommendations resulting from this coordination.

National Environmental Policy Act (NEPA). In accordance with Department of Defense National Environmental Policy Act Implementing Procedures, 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 information constitutes an initial request for public and agency input into this NEPA review process.

National Historic Preservation Act. Under Section 106 of this Act, this scoping information initiates USACE consultation with the Ohio Historic Preservation Office, interested tribal nations, historic preservation organizations and others who are likely to have knowledge of, or concern with, historic properties that may be present within the area of potential effect (APE). A Section 106 consultation form will be submitted to the Ohio Historic Preservation Office for the proposed project.

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. Section 7 presents a list of potentially applicable environmental protection statutes, executive orders, etc. Therefore, an additional intent of this document is to disseminate pertinent project information to meet the applicable coordination/consultation requirements required under their provisions.

6.2 Federal Environmental Protection Laws, Executive Orders, and Policies

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 U.S.C. 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; 7 U.S.C. 1010, *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.*

7 Request for Comments

The purpose of the scoping process is to provide an opportunity for the public and government agencies to comment on and provide input to help identify issues related to the proposed effort to be addressed in the environmental assessment. If, after this evaluation, it is concluded that the proposed effort 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). Any interested parties and/or agencies desiring to express their views concerning this proposed East Pier repair project may do so by submitting 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 the proposed discharge of fill material may request a public hearing. 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 USACE – Buffalo District with their comments regarding the proposed breakwater repair at Rocky River East Pier and send your comments in writing within 30 days to the following e-mail address:

RockyRiverEastPier@usace.army.mil

or via mail to:

U.S. Army Corps of Engineers,
Buffalo District Environmental
Analysis Team 478 Main Street
Buffalo, NY 14202-3278
ATTN: Rocky River East Pier