



**US Army Corps
of Engineers®**
Buffalo District

Ashtabula Harbor Western Breakwater Repair Ashtabula, Ohio

Scoping Information



October 2024

U.S. Army Corps of Engineers
Buffalo District
478 Main Street
Buffalo, New York 1202-3278

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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 information is to disseminate information regarding the U.S. Army Corps of Engineers (USACE) proposed breakwater repair project, and to elicit any concerns of potential affected parties. This information has been prepared as part of the formal scoping process pursuant to NEPA and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Part 1500 et seq.).

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.

2. Background

Ashtabula Harbor is located on the south shore of Lake Erie at the mouth of the Ashtabula River, 59 miles east of Cleveland Harbor and 15 miles west of Conneaut Harbor, Ohio (Figure 1). The harbor is located in Ashtabula County, Ohio. Ashtabula Harbor has a pair of east and west arrowhead breakwaters that converge and protect the mouth of the Ashtabula River from wave action on Lake Erie. The west breakwater runs northeast and has a length of 7,890 feet, while the east breakwater runs northwest and has a length of 4,340 feet. This general layout is characteristic of many Great Lakes harbors.



Figure 1: Location of Ashtabula Harbor

Construction of the east and west breakwaters of Ashtabula harbor were approved in 1896, by the Rivers and Harbors Act of 1896. Official construction of the east and west breakwaters began in 1898. That same year, the construction of a 432 foot section, made of timber, of the western breakwater was completed. However construction of the rubblemound breakwaters began in 1899, and was not completed until 1909. Extensions and repairs have continued until the lengths they currently sit at were reached in 1915 (Figure 2). In 1926, less than 30 years after its construction, major deterioration above the water line occurred prompting construction of riprap reinforcement along its lakeward side.

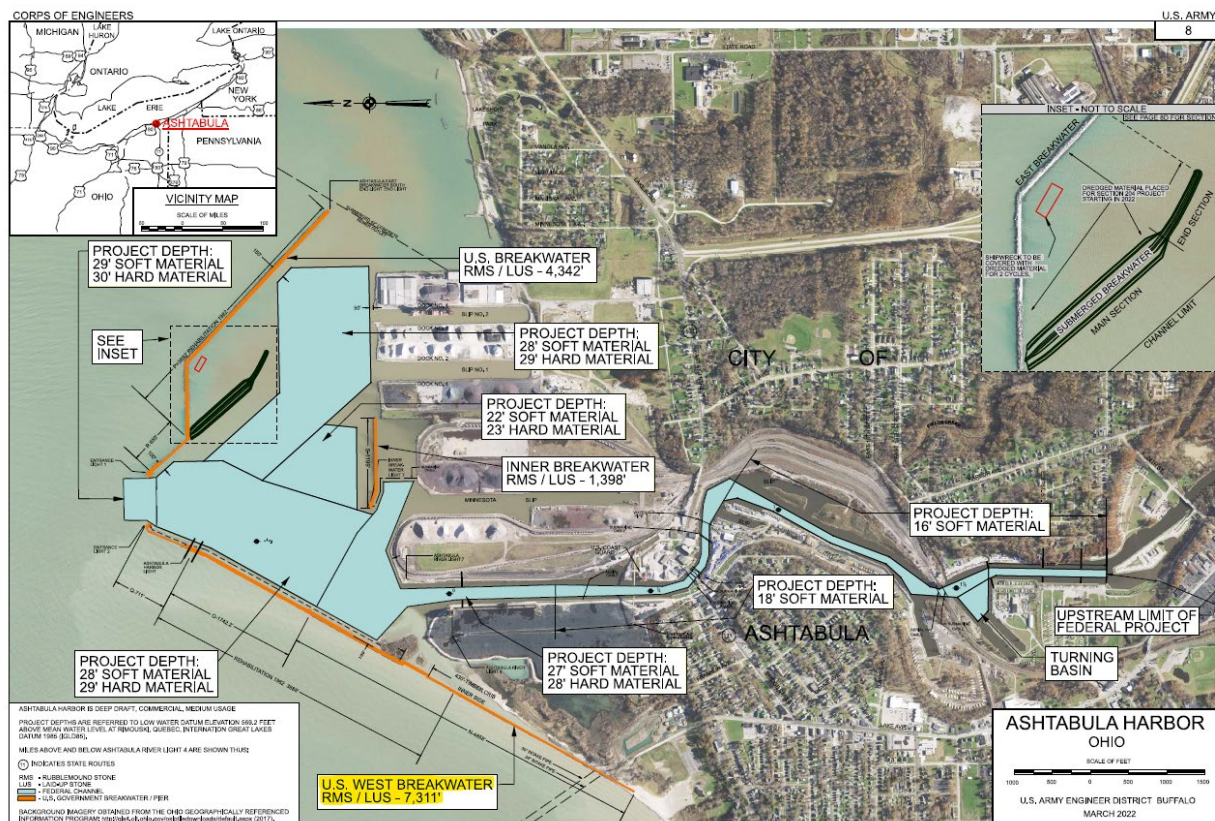


Figure 2: Ashtabula Harbor Federal project map.

The federal navigation channel at Ashtabula Harbor is designed to accommodate commercial and recreational navigation and is maintained by USACE. The Ashtabula Harbor federal navigation channel requires regular maintenance dredging to maintain authorized depths for commercial navigation. Ashtabula Harbor generally requires annual maintenance dredging to facilitate commercial navigation. As sediments are deposited and accumulate as shoals, they can obstruct commercial vessels in the channels, thus requiring regular maintenance dredging.

3. Authority

Construction of the east and west breakwaters of Ashtabula Harbor was initially authorized by the Rivers and Harbors Act of 1896. USACE, Buffalo District is now conducting a project to restore deteriorated portions of the west breakwater under the authority of the Rivers & Harbor Acts of 1896, 1905, 1910, 1919, 1935, 1937, 1945, 1960, and 1965.

4. Need for Action

On 15 June 2016, the Great Lakes Breakwater Assessment Team (BAT) inspected the Ashtabula harbor structures, documenting conditions by video and still photographs. The inspection found the areas between the two lighthouses showed breaching and an observable amount of armor stone loss along the lakeside.

The USACE Great Lakes Regional BAT conducted two above water inspections of the Ashtabula Harbor, one in 2019 and 2023. During the 2019 inspection, two breaches were observed along the West Breakwater totaling 62 ft in Reach N and 80 ft in Reach Q. Reach labels are outlined in Figure 2. Between the 2019 and 2023 inspection, the water levels lowered by 2 ft leading to less severe observable reaches. During the 2023 inspection, there was one 15 ft breach in Reach N and one 40 ft breach in Reach Q. The West Breakwater Reach Q was observed to have multiple locations of core loss below the waterline, and significant displacement of lakeside slope stones, leading to widespread cap stone displacement. The West Breakwater Reach O has moderate lowering of the crest height and loss of stone contact with general degradation of a 1962 stone rehabilitation project. The AWBW in its existing state is compromised and has a reduced capability to protect the harbor from significant wave and storm events.

5. Proposed Actions

Alternative 1: No Action

The USACE is required to consider the option of “No Action” as one of the alternatives to comply with the requirements of NEPA. No action assumes that no project would be implemented by the federal government to achieve the planning objectives. No action, which is synonymous with the Without Project Condition, forms the basis from which all other alternative plans are measured. Under this alternative, the federal government would do nothing to address the need for management or repair of the west breakwater at Ashtabula Harbor.

Alternative 2:

The AWBW repair consists of a rubble-mound overlay at 1V (vertical) on 2H (horizontal) slope along the lakeside of the existing structure up to the design crest elevation of +10 feet low water datum (LWD). The project will include placement of new stone along deteriorated portions of the breakwater up to the crest elevation. The head of the structure is vulnerable to high wave

energy requiring an armor stone 8 ton to 17 ton (with a slope of 1V:2H) (Table 1, Zone 4). The remainder of the west breakwater is known as the 'trunk' of the breakwater and requires a smaller armor stone of 5.3 ton to 12 ton (Side slope 1V:2H) (Table 1, Zones 1-3). This alternative's reach extends from Station 40+00 to Station 46+21 and will wrap around the northern end of the northern lighthouse (Figures 3 and 4). The repair footprint has been broken up into four repair zones: zone 1 is station 40+00 to 41+50 (Figure 5), zone 2 is station 41+75 to 42+00 (Figure 6), zone 3 is station 42+25 to 44+25 (Figure 7), and zone 4 is station 44+25 to 46+21 (Figure 8).

Repairs to the breakwater south of the southern lighthouse were not identified as critical to serve a navigable purpose. Furthermore, the breakwater structure south of the island formation at the mouth of the Ashtabula River does not serve a navigable purpose and will not be considered for repair.

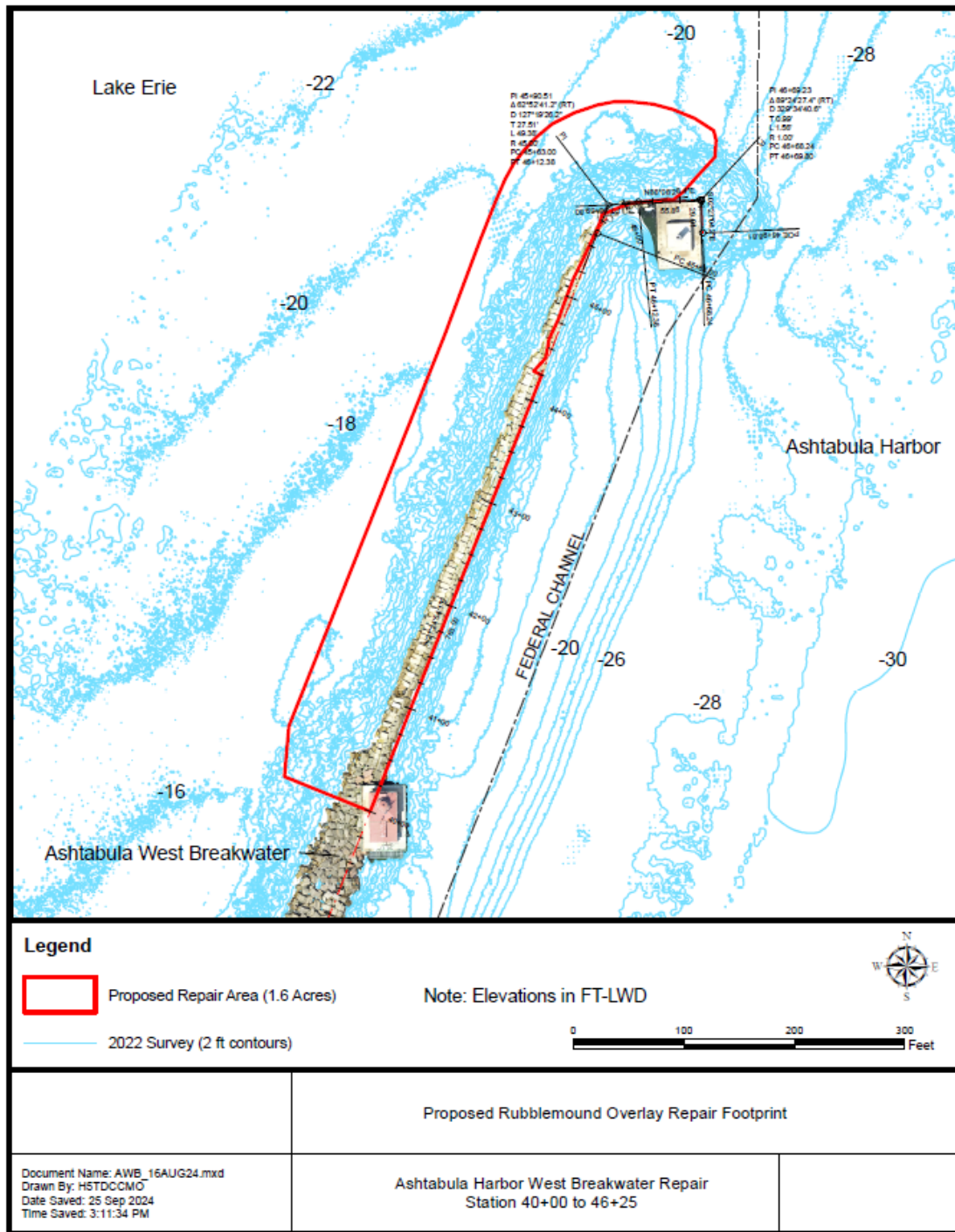


Figure 3: Alternative 2 proposed rubble mound overlay repair footprint.

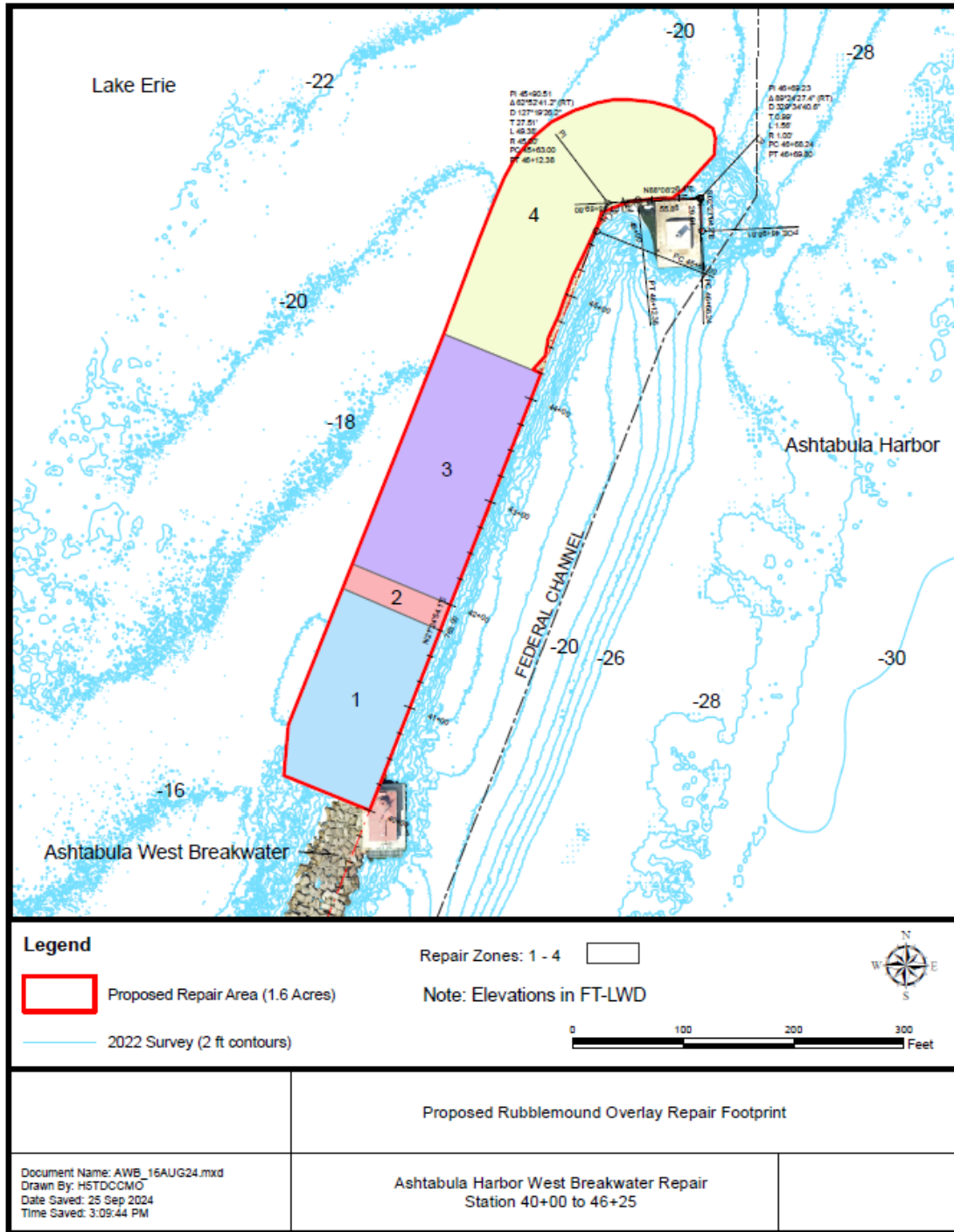


Figure 4: Alternative 2 proposed rubble mound overlay repair footprint with sections.

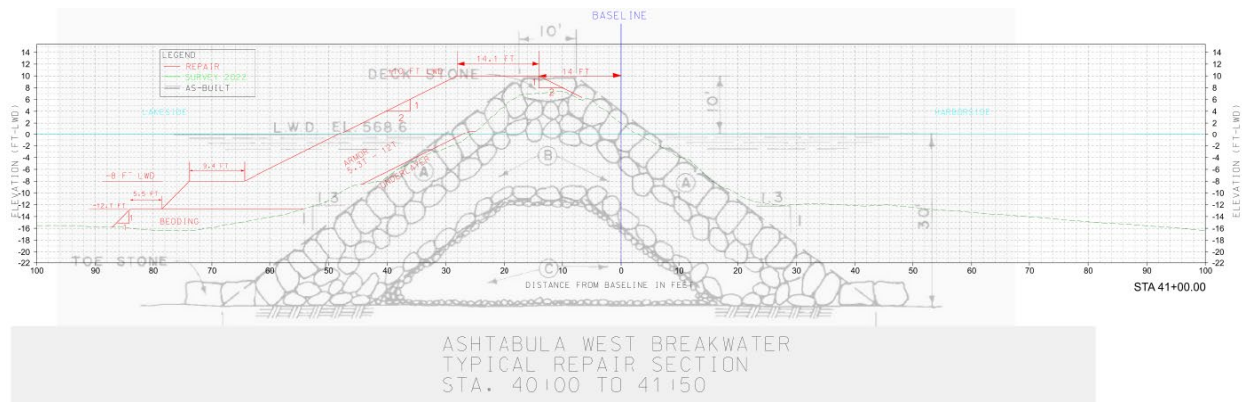


Figure 5: Alternative 2 Typical Repair Cross Section, Zone 1 Stations 40+00 to 41+50.

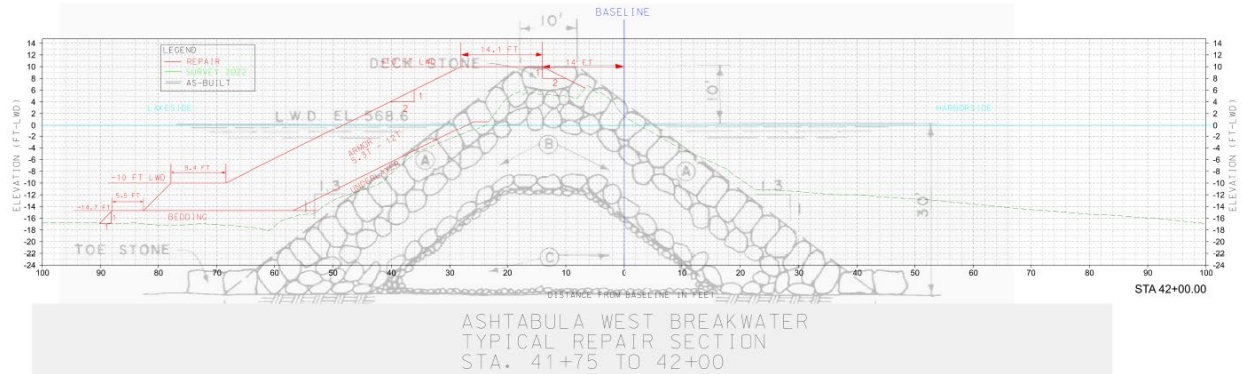


Figure 6: Alternative 2 Typical Repair Cross Section, Zone 2 Stations 41+75 to 42+00.

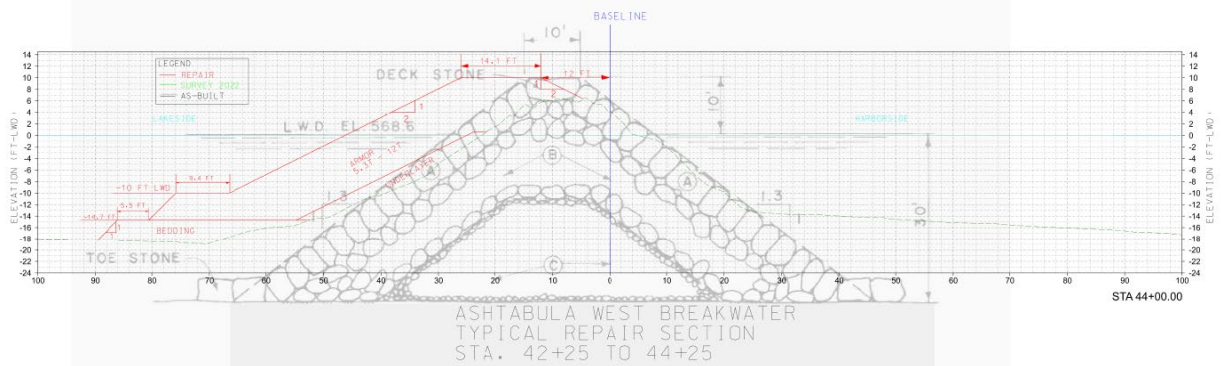


Figure 7: Alternative 2 Typical Repair Cross Section, Zone 3 Stations 42+25 to 44+25.

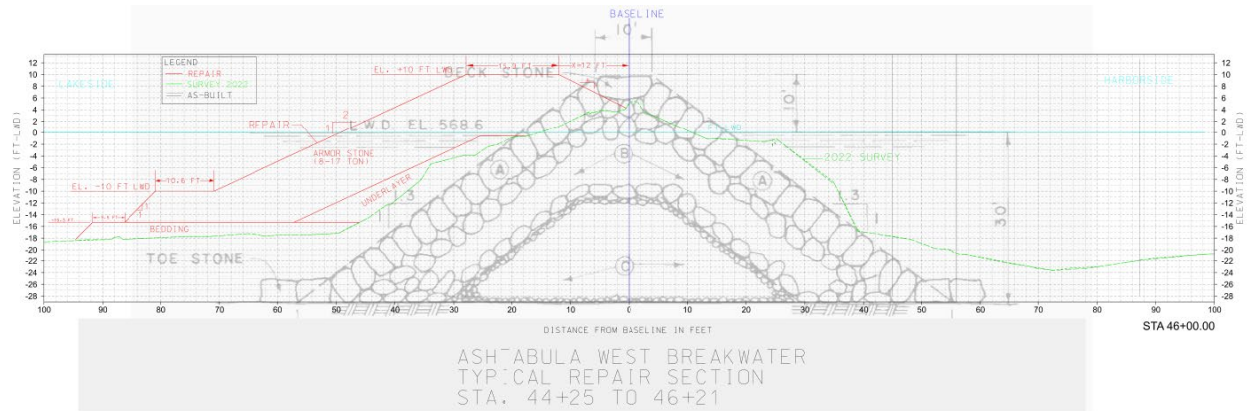


Figure 8: Alternative 2 Typical Repair Cross Section, Zone 4 Stations 44+25 to 46+21.

Table 1: Alternative 2 Stone Quantities

TOTAL FOOTPRINT Repair AREA (Zones 1-4):			1.56 acres					
Zone	Section	Stations	Stone Type	Gradation	Tons	Add 25% more bedding stone for displacement of lake bed during construction(1) (tons)	10 % contingency (armor and underlayer only) Tons	Total (tons)
1	Trunk	40+00 to 41+75	Armor	5.3 - 12 ton quarry stone	2873		287	3160
			Underlayer	0.3 - 1.2 ton	97		10	107
			Bedding	ODOT type C dump rock fill	485	121		606
2	Trunk	41+75 to 42+00	Armor	5.3 - 12 ton quarry stone	1450		145	1595
			Underlayer	0.3 - 1.2 ton	158		16	174
			Bedding	ODOT type C dump rock fill	247	62		309
3	Trunk	42+00 to 44+25	Armor	5.3 - 12 ton quarry stone	5927		593	6520
			Underlayer	0.3 - 1.2 ton	657		66	723
			Bedding	ODOT type C dump rock fill	899	225		1124
ZONES 1 - 3 (all same Armor and Underlayer Gradation)							ARMOR UNDERLAYER Bedding (TYPE C ODOT)	11275 1003 2039
4	Head	44+25 to 46+25	Armor	8-17 ton quarry stone	7946		795	8740
			Underlayer	0.5 - 1.7 ton	1259		126	1385
			Bedding	ODOT type C dump rock fill	1799	450		2249

Notes: (1) Per recommendation from Geotechnical Appendix June 2024, Additional bedding stone is needed to account for initial displacement of lake bed sediments during placement of stone/ construction.

Type C

Type C material has at least 85 percent of the total material by weight larger than a 6-inch (150 mm) but less than an 18-inch (0.5 m) square opening and at least 50 percent of the total material by weight larger than a 12-inch (0.3 m) square opening. Furnish material smaller than a 6-inch (150 mm) square opening that consists predominantly of rock spalls and rock fines, and is that free of soil.

TOTAL FOOTPRINT Repair AREA (Zones 1-4): 1.56 acres

Station 40+00 to 46+25 (Whole structure)

Repair Zone	Armor (CY) includes void space	Underlayer (CY) includes Void Space	Bedding (CY) includes void space
1 to 4	14042	1649	2936

Station 40+00 to 46+25 (Below OHWM +4.2 ft LWD)

Repair Zone	Armor (CY) includes void space	Underlayer (CY) includes Void Space	Bedding (CY) includes void space
1 to 4	9408	1649	2936

Alternative 3

A second repair alternative was considered during the design phase for the Ashtabula West Breakwater. This alternative is also a rubble-mound overlay, however the slope of the repair at the head of the breakwater is flattened to 1V:3H. The advantage of this flatter slope is that the same stone gradation (5.3 ton - 12 ton) could be used for the entire reach of the west breakwater; including the trunk and head of the breakwater. This alternative did not move forward due to a higher cost from more stone tonnage and a larger footprint.

6. Environmental Impacts

Future conditions and anticipated potential effects of the proposed action 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 AWBW repair. The alternatives will be evaluated for several social, economic, and environmental categories, including:

- Fish and Wildlife Resources
- Historic Properties
- Water Quality
- Property Values and Tax Revenues
- Dredged Material Management
- Employment
- Geology and Soils
- Community Cohesion and Growth
- Contaminated Materials
- Transportation
- Air Quality
- Public Facilities and Services
- Noise
- Aesthetics
- Recreation
- Environmental Justice

7. Public Participation, Interagency Coordination, & Scope of Review

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 action that will be evaluated as part of the Operations and Maintenance (O&M) support to the AWBW 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 proposed action.

8. Compliance of the Proposed Federal Action with Environmental Protection Statutes

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

- a. National Environmental Policy Act (NEPA). 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 an interdisciplinary approach, an assessment will be made of the potential environmental impacts of the proposed action(s) by comparing the plans with the "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.

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 of the Clean Water Act (40 CFR 230). If the proposed federal action will result in the discharge of dredged or fill material into a water of the United States, a Section 404(a) public notice would be issued, and the general public afforded the opportunity to comment and/or request a public hearing. In the event of the need for a Section 404 fill, USACE would also request water quality certification from the Ohio Environmental Protection Agency under Section 401 of the Act. This project will also be conducting a 404 (b)(1) analysis to determine the least environmentally damaging alternative.

c. National Historic Preservation Act. Under Section 106 of this Act, this scoping information initiates USACE consultation with the National Park Service, interested Indian 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 Review - Project Summary Form will be provided to Ohio History Connection (State Historic Preservation Office) to initiate consultation, including a description of the APE.

d. Coastal Zone Management Act. The Act requires that federal actions that are 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. Coordination in this regard is being initiated with the Ohio Department of Natural Resources (ODNR) via this scoping information. A formal consistency determination will be submitted to ODNR in the future.

e. Endangered Species Act. 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 consultation with the 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 results of a review of the USFWS Information for Planning and Consultation (IPaC) website indicate that Ashtabula Harbor lies within the range of the federally endangered Indiana bat (*Myotis sodalis*), threatened red knot (*Calidris canutus rufa*), and candidate monarch butterfly (*Danaus plexippus*) (USFWS 2024). The alternatives currently under consideration are not located in designated critical habitat.

f. Fish and Wildlife Coordination Act. The USACE is coordinating this study with the USFWS and ODNR Division of Wildlife. The USACE will coordinate with these agencies to identify any fish and wildlife concerns, identify relevant information on the study area(s), 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 federal laws and executive orders. A comprehensive list is presented on the following page. 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, as applicable.

9. Request for Comments

Any interested parties and/or agencies desiring to express their views concerning this proposed AWBW 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 Ashtabula Harbor and send your comments in writing within 30 days to the following e-mail address:

Ashtabula_Harbor_West_Breakwater_Repair@usace.army.mil

or via regular mail to:

U.S. Army Corps of Engineers, Buffalo District Environmental Analysis Team
478 Main Street
Buffalo, NY 14202-3278
ATTN: Ashtabula West Breakwater

10. Federal Environmental Protection Laws, Orders, and Policies

1. PUBLIC LAWS

- (a) American Folklife Preservation Act, P.L. 94-201; 20 U.S.C. 2101, *et seq.*
- (b) Anadromous Fish Conservation Act, P.L. 89-304; 16 U.S.C. 757, *et seq.*
- (c) Antiquities Act of 1906, P.L. 59-209; 16 U.S.C. 431, *et seq.*

- (d) 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.)
- (e) Bald Eagle Act; 16 U.S.C. 668.
- (f) Clean Air Act, as amended; P.L. 91-604; 42 U.S.C. 1857h-7, *et seq.*
- (g) 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.)
- (h) Coastal Barrier Resources Act of 1982, 16 U.S.C. § 3501 *et seq.*; 12 U.S.C. § 1441 *et seq.*
- (i) Coastal Zone Management Act of 1972, as amended, P.L. 92-583; 16 U.S.C. 1451, *et seq.*
- (j) Endangered Species Act of 1973, as amended, P.L. 93-205; 16 U.S.C. 1531, *et seq.*
- (k) Estuary Protection Act, P.L. 90-454; 16 U.S.C. 1221, *et seq.*
- (l) Federal Environmental Pesticide Control Act, P.L. 92-516; 7 U.S.C. 136.
- (m) Federal Water Project Recreation Act, as amended, P.L. 89-72; 16 U.S.C. 460-1(12), *et seq.*
- (n) Fish and Wildlife Coordination Act of 1958, as amended, P.L. 85-624; 16 U.S.C. 661, *et seq.*
- (o) Historic Sites Act of 1935, as amended, P.L. 74-292; 16 U.S.C. 461, *et seq.*
- (p) Land and Water Conservation Fund Act, P.L. 88-578; 16 U.S.C. 460/-460/-11, *et seq.*
- (q) Migratory Bird Conservation Act of 1928; 16 U.S.C. 715.
- (r) Migratory Bird Treaty Act of 1918; 16 U.S.C. 703, *et seq.*
- (s) National Environmental Policy Act of 1969, as amended, P.L. 91-190; 42 U.S.C. 4321, *et seq.*
- (t) National Historic Preservation Act of 1966, as amended, P.L. 89-655; 16 U.S.C. 470a, *et seq.*
- (u) Native American Religious Freedom Act, P.L. 95-341; 42 U.S.C. 1996, *et seq.*
- (v) Resource Conservation and Recovery Act of 1976, P.L. 94-580; 7 U.S.C. 1010, *et seq.*
- (w) River and Harbor Act of 1899, 33 U.S.C. 403, *et seq.* (Also known as the Refuse Act of 1899.)
- (x) Submerged Lands Act of 1953, P.L. 82-3167; 43 U.S.C. 1301, *et seq.*
- (y) Surface Mining and Reclamation Act of 1977, P.L. 95-89; 30 U.S.C. 1201, *et seq.*
- (z) Toxic Substances Control Act, P.L. 94-469; 15 U.S.C. 2601, *et seq.*
- (aa) Watershed Protection and Flood Prevention Act, as amended, P.L. 83-566; 16 U.S.C. 1001, *et seq.*
- (bb) 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 (36 FR 8921; May 15, 1971).
- (b) Executive Order 11988, Floodplain Management. May 24, 1977 (42 FR 26951; May 25, 1977).
- (c) Executive Order 11990, Protection of Wetlands. May 24, 1977 (42 FR 26961; May 25, 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 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, August 3, 1993.
- (h) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.

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.
- (c) Migratory Bird Treaties and other international agreements listed in the Endangered Species Act of 1973, as amended, Section 2(a)(4)

References

History of Ashtabula Harbor, Ohio. U.S. Army Corps of Engineers, Buffalo District, Buffalo, NY. 1941.

U.S. Army Corps of Engineers (USACE). 2023. Fact Sheet, Ashtabula Harbor, Ohio, US Army Corps of Engineers, Buffalo District, Buffalo, NY. Chrome-extension://efaidnbmnnnibpcajpcgiclfindmkaj/https://lre-ops.usace.army.mil/OandM/factsheets/AshtabulaHarbor.pdf

U.S. Fish and Wildlife Service (USFWS). 2024, September 3. *Information for Planning and Consultation*. Retrieved from Information for Planning and Consultation: <https://ipac.ecosphere.fws.gov/>.