



DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO
ATTENTION OF

Environmental Analysis Team

MAR 12 2015

SUBJECT: Lake County Raw Water Pump Station Section 103 Coastal Storm Risk Management Project, Painesville Township, Lake County, Ohio

Ohio EPA
Division of Surface Water
ATT: 401/IWP/Mitigation Section Manager
P.O. Box 1049
Columbus, Ohio 43216-1049

RECEIVED
MAR 23 2015
OHIO EPA NEDO

OHIO EPA - DSW
2015 MAR 17 AM 10:15

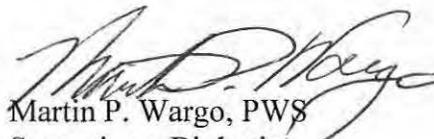
Dear Sir/Madam:

The U.S. Army Corps of Engineers-Buffalo District (USACE) requests Section 401 State Water Quality Certification (WQC) for the proposed construction of shoreline protection for the Lake County Raw Water Pump Station in located Painesville Township, Lake County, Ohio. In accordance with Ohio Administrative Code Chapter 3745-32, we have completed the enclosed Section 401 WQC Application Package (Enclosure 1, four copies). OEPA had previously granted Section 401 WQC for this project on October 24, 2001 (corrected copy issued on November 6, 2001) (Enclosure 2). Due to the amount of time elapsed and design refinements added to the proposed project, reissuance of this certification is requested.

Please advise us regarding your administrative completeness review for this application within fifteen (15) days of your receipt of this request.

Questions or comments regarding this matter should be referred to Mr. William Butler of our Environmental Analysis Team, who may be reached at 716-879-4268 (Fax: 716-879-4225; E-mail: william.e.butler@usace.army.mil), or by writing to his attention at the above address.

Sincerely,


Martin P. Wargo, PWS
Supervisory Biologist
Environmental Analysis Team

Enclosures:

1. Application for Sec. 401 WQC (four copies)
2. Sec. 401 WQC (10/24/01, rev. 11/6/01)

Item 1

Section 401 Water Quality Certification Application Form



Application for Section 401 Water Quality Certification

RECEIVED

MAR 23 2015

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

OHIO EPA NEDO

Section 1: Applicant and Agent Information

	Applicant:	Agent:
Company/ Agency Name:	US Army Corps of Engineers-Buffalo District	Click here to enter text.
Name of Contact:	Martin P. Wargo	Click here to enter text.
Title:	Supervisory Biologist	Click here to enter text.
Technical Point of Contact:	William E. Butler III	Click here to enter text.
Address:	1776 Niagara Street	Click here to enter text.
City, State, Zip:	Buffalo, NY 14207-3199	Click here to enter text.
Phone Number(s):	716.879.4268	Click here to enter text.
Email Address:	william.e.butler@usace.army.mil	Click here to enter text.

Section 2: Project Information

A. Project Name: Lake County Raw Water Pump Station Sec. 103 Coastal Storm Risk Management Project

B. Has Pre-App. Coordination occurred? YES NO Indicate the 401 reviewer: Choose an item. DATE: 3/23/2001

C. Brief Project Description/Purpose: Provide shoreline protection to Lake County Raw Water Pump Station

D. Construction Timeframe (Provide ~start and end dates): July 2016 January 2017

E. Is any portion of the activity complete now? YES NO Is this an "After-The-Fact" permit application? YES NO
If YES to either, describe the extent of completed portion of the activity below and the unauthorized impacts on waters of the state:
Click here to enter text.

F. Coordinates (degree, minutes, seconds): 41°46' 38" N - 82° 12' 20" W

G. Project Address: Street: Bacon Road City or Town: Painesville
Zip Code: 44077 Township: Painesville County: Lake

H. 12 Digit HUC No.: 041202000200 I. Watershed Name: Lake Erie J. Corps District: Buffalo

K. Proposed impacts to "waters of the state":

<input type="checkbox"/> Beach Nourish	<input type="checkbox"/> Levees/Berms
<input type="checkbox"/> Blasting	<input type="checkbox"/> Mine Through
<input type="checkbox"/> Breakwater	<input checked="" type="checkbox"/> Revetment
<input type="checkbox"/> Bulkhead	<input checked="" type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Bridge/Culvert	<input type="checkbox"/> Stream Channeliz.
<input type="checkbox"/> Dam	<input type="checkbox"/> Stream Relocation
<input type="checkbox"/> Dredge	<input type="checkbox"/> Water Body Cross
<input type="checkbox"/> Fill	<input type="checkbox"/> Weirs
<input type="checkbox"/> Groin/Jetty	<input type="checkbox"/> Other

L. Other water related permits issued or required include:

Individual 404 Permit – Public Notice # issued on 2/6/15

Nationwide Permit # Choose an item. Choose an item. Click here to enter a date.

Section 10 Permit - Choose an item. Click here to enter a date.

Section 9 Permit - Click here to enter text.

Iso. Wetland Permit Choose an item. Click here to enter a date. Choose an Item.

NPDES Permit – Choose an item. Choose an item. Click here to enter a date.

Permit to Install – Choose an item. : Click here to enter a date.

ODNR Choose an item. Permit - Choose an item. Click here to enter a date.

ODNR Coastal Permit - Choose an item. Click here to enter a date.

Regional Permit - Choose an item. Click here to enter a date.

RECEIVED
MAR 23 2015

Application for Section 401 Water Quality Certification

Section 3: Fees

Are you exempt from fees? YES NO (If YES, leave fee section blank)

Application Fee = \$ 200.00

Review Fee

Wetland	Acres Impacted	x \$500 =	\$ 0.00
Ephemeral Stream	Linear Feet Impacted	x \$5.00 =	\$ 0.00 (\$200.00 minimum)
Intermittent Stream	Linear Feet Impacted	x \$10.00 =	\$ 0.00 (\$200.00 minimum)
Perennial Stream	Linear Feet Impacted	x \$15.00 =	\$ 0.00 (\$200.00 minimum)
Lake	Cubic Yards	x \$3.00 =	\$ 0.00

Total Review Fees = \$ 0.00

Total Fees (\$200 Application Fee + Total Review Fees) = \$ 200.00

Standard Applicant - Is the fee cap (\$25,000) exceeded? YES NO

If YES, \$12,500 (\$12,700) is due with application and \$12,500 (\$12,300) is due at time of 401 WQC issuance

County, Township or Municipal Corp. - Is the fee cap (\$5,000) exceeded? YES NO

If YES, \$2,500 (\$2,700) is due with application and \$2,500 (\$2,300) is due at time of 401 WQC issuance

If fee cap is not exceeded:

DUE AT TIME OF 401 WQC APP. SUBMITTAL - APPLICATION FEE AND 1/2 OF REVIEW FEE = \$ ~~200.00~~ Exempt

DUE AT TIME OF 401 WQC ISSUANCE - 1/2 OF REVIEW FEE (Invoice will be sent) = \$ 0.00

PLEASE MAKE FEE CHECK PAYABLE TO: "TREASURER, STATE OF OHIO"

Section 4: Submitted Documentation

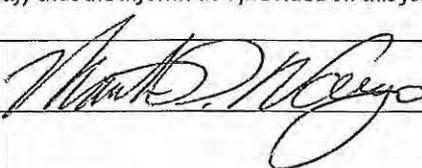
Check all documents/items that have been submitted:

<input type="checkbox"/> U.S. ACOE JD letter	<input checked="" type="checkbox"/> A specific & detailed mitigation plan	<input checked="" type="checkbox"/> US FWS & ODNR T&E Coordination
<input type="checkbox"/> 10 page ORAM forms - impacted wetlands	<input type="checkbox"/> Applicable fees	<input type="checkbox"/> Investigation report of "waters of the US"
<input type="checkbox"/> A DoEU for each undesignated stream *	<input checked="" type="checkbox"/> Site photographs	<input checked="" type="checkbox"/> US ACOE 404 Permit Public Notice
<input checked="" type="checkbox"/> Descriptions, schematics & appropriate economic information for all three alternatives (Preferred, Minimal Degradation and Non Degradation)		

*DoEU - Determination of Existing Use (See pages 6 and 11 in the Instructions)

Section 5: Applicant and Agent Signature

I hereby designate and authorize the agent/consultant identified in Section 1 to act on my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application:

Applicant Name		Applicant Signature	
Application is hereby made for a Section 401 Water Quality Certification. I certify that the information provided on this form and all attachments related to this project are true and accurate to the best of my knowledge:			
Applicant Name	Martin P. Wargo	Applicant Signature	
Agent Name		Agent Signature	

For Internal Ohio EPA Use

Reviewer:	
Project ID #	154683
Date Received:	3/17/15
CR Due:	4/10/15

Item 2

Lake Impact Table



Application for Section 401 Water Quality Certification — Proposed Lake Impacts

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

Other Water Body ID	Coastal Erosion Area?	Impact Type	Preferred Alternative			Minimal Deg. Alternative			Placement of Dredged Material into a:
			Cubic Yards of Fill/Dredged Material	Lakeward Extent (linear ft.)	Shoreline Impacted (linear ft.)	Cubic Yards of Fill/Dredged Material	Lakeward Extent (linear ft.)	Shoreline Impacted (linear ft.)	
Lake Erie	YES	Revetment	28000.00	15.00	600	25400.00	15.00	600.00	Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
Click here to enter text.	Choose an item.	Choose an item.							Choose an item.
TOTALS			28000.00	15.00	600.00	25400.00	15.00	600.00	

RECEIVED
MAR 23 2015
OHIO EPA NEDO

Item 3
Site Photographs



Lake County Raw Water Pump Station Sec. 103

Photograph 1. Typical bluff and beach at pump station looking east (22 October 2009)



Lake County Raw Water Pump Station Sec. 103

Photograph 2. Typical bluff and beach at pump station looking west (22 October 2009)



Lake County Raw Water Pump Station Sec. 103

Photograph 3. Typical bluff and beach west of pump station looking east (22 October 2009)



Lake County Raw Water Pump Station Sec. 103

Photograph 4. Looking west from top of bluff at pump station (22 October 2009)



Lake County Raw Water Pump Station Sec. 103

Photograph 5. Pump Station looking west (22 October 2009)



Lake County Raw Water Pump Station Sec. 103

Photograph 5. Pump Station looking east (22 October 2009)

RECEIVED
MAR 28 2015
OHIO EPA NEDO

Item 4
Correspondence

United States Department of the Interior

FILE COPY



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

August 19, 2013

Department of the Army
Buffalo District, Corps of Engineers
Attn: Keith Sendziak
1776 Niagara Street
Buffalo, New York 14207-3199

TAILS# 03E15000-2013-I-1128

Re: Scoping Document – Lake County Raw Water Pump Station – Section 103 Coastal Storm Damage Reduction Project

Dear Mr. Sendziak,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

ENDANGERED SPECIES COMMENTS: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

If you have additional questions or require further assistance with your project proposal, please contact me at the following number (614) 416-8993, x12. In addition, you can find more information on natural resources in Ohio, and a county list of federally threatened and endangered species in Ohio, by visiting our homepage at: <http://www.fws.gov/midwest/ohio>.

Sincerely,

Mary Knapp, Ph.D.
Field Supervisor



DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
 1776 NIAGARA STREET
 BUFFALO, NEW YORK 14207-3199

To: U.S. Fish and Wildlife Service, Ohio Ecological Services Field Office

FAX: 614-416-8994
 Email: ohio@fws.gov

Request for review pursuant to:

- Section 7(a)(2) of the Endangered Species Act (ESA) of 1973
- Fish and Wildlife Coordination Act (FWCA)

03E15000-2014-I-1813

Date: 21 January 2015 **DA. No.:** 2014-01367
Project Name: Painesville, City of - Water Treatment Intake **USFWS**
County: Lake **TAILS No.:** 03E15000-2014-TA-1813
Corps Contact Name, Keith Sendziak **Project**
Address, Fax No.: 1776 Niagara Street, Buffalo, NY 14207 **Lat./Long.** 41.75372, -81.29666

Listed/candidate species and/or designated critical habitat with potential to occur in proposed project area:

E- Endangered T- Threatened C-Candidate PE- Proposed Endangered PT -Proposed Threatened

- | | |
|---|--|
| <input type="checkbox"/> Clubshell mussel - E | <input type="checkbox"/> Northern monkshood - T |
| <input type="checkbox"/> Copperbelly watersnake - T | <input type="checkbox"/> Northern riffleshell mussel - E |
| <input type="checkbox"/> Eastern massasauga rattlesnake - C | <input checked="" type="checkbox"/> Piping plover - E |
| <input type="checkbox"/> Eastern Prairie fringed orchid - T | <input checked="" type="checkbox"/> Piping plover - Critical Habitat |
| <input type="checkbox"/> Indiana bat - E | <input type="checkbox"/> Rabbitsfoot mussel - C |
| <input type="checkbox"/> Karner blue butterfly - E | <input type="checkbox"/> Rayed bean mussel - E |
| <input type="checkbox"/> Kirtland's Warbler - E | <input checked="" type="checkbox"/> Rufa red knot - T |
| <input type="checkbox"/> Lakeside daisy - T | <input type="checkbox"/> Snuffbox - E |
| <input type="checkbox"/> Mitchell's satyr butterfly - E | <input type="checkbox"/> White cat's paw pearly mussel - E |
| <input type="checkbox"/> Northern long-eared bat - PE | |

The U.S. Army Corps of Engineers has determined the proposed project:

- will result in no effect to _____
- may affect _____
- may affect, but is not likely to adversely affect Piping plover, piping plover critical habitat, rufa red knot
- is likely to adversely affect _____

See attached for the rationale for the above-listed determination(s), project description and applicable permit conditions including any conservation measures that are part of the proposal.

The U.S. Army Corps of Engineer's requests:

- USFWS concurrence with our determination
- Additional assistance to make our determination

Date USFWS response due: _____ (for LOPs - 15 days; for SPs - length of PN; for NWP - 10 days).

The U.S. Fish and Wildlife Service:

- | | |
|--|--|
| <input type="checkbox"/> Requests additional time for review | <input type="checkbox"/> Has no comments pursuant to FWCA |
| <input checked="" type="checkbox"/> Concurs with your determination and has no further ESA comments | <input type="checkbox"/> Will provide FWCA comments separately |
| <input type="checkbox"/> Considered potential impacts to Candidate Species and has no further comments | <input type="checkbox"/> No concurrence needed |

USFWS Contact(s):

Jerome M. Applegate
Jerome M. Applegate

Date:

1/22/2015



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



September 10, 2014

Ms. Katherine Fontaine
Burgess & Niple
5085 Reed Rd.
Columbus, OH 43220

TAILS: 03E15000-2014-TA-1813

Dear Ms. Fontaine,

This letter is in response to your August 12, 2014 correspondence regarding the proposed City of Painesville new water intake, to be located in Lake Erie at 9565 Headlands Road, Mentor, Lake County, Ohio. The project will require work along a sand beach adjacent to Lake Erie and in-water work for approximately 4,000 feet.

LISTED SPECIES COMMENTS: The proposed project lies within the range of the federally listed endangered **piping plover** (*Charadrius melodus*), and within the vicinity of designated critical habitat for the plover. Piping plover habitat includes sand or pebble beaches with sparse vegetation along the shore of Lake Erie. Designated critical habitat exists at Headlands Dunes State Nature Preserve in Lake County, Ohio, just east of the project area. While piping plovers do not currently nest in Ohio, migrating plovers can be expected to stop-over along the shore of Lake Erie during the period of time between April 1-May 31 and July 15-October 31 each year, which incorporates spring and fall migration periods. Because the project area currently supports a sand beach that appears to be suitable as piping plover migration stop-over habitat, this area should not be disturbed during the period of time when plovers could be expected to occur here.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no work on any portion of the parcel should occur until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the piping plover, for our review and concurrence.

Due to the project location and onsite habitat, the project should have no effect on any other federally listed endangered or threatened species.

PROPOSED SPECIES COMMENTS: The proposed project lies within the range of the **rufa red knot** (*Calidris canutus rufa*), a species that is currently proposed to be listed as federally threatened. The red knot is a shorebird that known to migrate through Ohio during the spring and fall. Red knot migratory stopover habitat includes sand, gravel, or cobble beaches, and mudflats along the shore of Lake Erie. Suitable habitat for the red knot exists within the project

area. Transient red knots can be expected to stop-over along the shore of Lake Erie during the period of time between April 1 and October 31 each year, which incorporates spring and fall migration and the nesting season. We recommend that impacts to the sand beach be avoided during the time of year when red knots may be present.

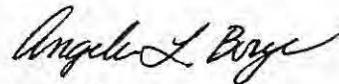
Pursuant to section 7(a)(4) of the ESA, federal action agencies are required to confer with the Service if their proposed action is likely to jeopardize the continued existence of a proposed species, including the rufa red knot (50 CFR 402.10(a)). Federal action agencies may also voluntarily confer with the Service if the proposed action may affect a proposed species. Nevertheless, species proposed for listing are not afforded protection under the ESA; however as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and "take" applies regardless of an action's stage of completion. If the federal agency retains any discretionary involvement or control over on-the-ground actions that may affect the species after listing, section 7 applies.

MIGRATORY BIRD COMMENTS: The project lies within the range of the **bald eagle** (*Haliaeetus leucocephalus*), a species protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) and the Migratory Bird Treaty Act (16 U.S.C. 703-712). A bald eagle nest exists approximately 1/3 mile east of the project area. Further, bald eagles are known to forage in Lake Erie, and may winter and stage along the shoreline, utilizing trees as perches. Because no impacts to trees or forests are proposed, and because no work is proposed within 660 feet of the nest location, no impact to this species is expected. Relative to this species, this precludes the need for further action on this project as required by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

INTERJURISDICTIONAL FISHERIES COMMENTS: No in-water work should occur between April 15 and June 30 to protect fish spawning activities of interjurisdictional fish species.

If project plans change, if portions of the proposed project were not evaluated, or if additional information on listed or proposed species or their critical habitat becomes available, this finding may be reconsidered and it is our recommendation that you reinitiate coordination with this office. If you have questions, or if we can be of further assistance in this matter, please contact Megan Seymour at 614-416-8993 ext. 16, or Megan_Seymour@fws.gov. We recommend that the project be coordinated with the Ohio Division of Wildlife due to the potential for the project to affect state listed species. Contact Nathan Reardon, Environmental Review Coordinator with the Division of Wildlife, at (614) 265- 6741 or at nathan.reardon@dnr.state.oh.us.

Sincerely,



Angela Boyer
Acting Field Supervisor

cc: Nathan Reardon, ODNR-DOW



REPLY TO
ATTENTION OF

Environmental Analysis Team

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

FEB 26 2015

SECTION 103 SHORELINE PROTECTION PROJECT
LAKE COUNTY RAW WATER PUMP STATION
PAINESVILLE TOWNSHIP
LAKE COUNTY, OHIO

This Public Notice has been prepared and distributed pursuant to Section 404(a) of the Clean Water Act (33 USC 1344). Its purpose is to specify what fill materials will be discharged into the waters of the United States by implementation of the proposed project. This notice provides an opportunity for any person who may be affected by such discharge to submit comments or request a public hearing.

The area that is considered in this notice is located in Painesville Township, Lake County, Ohio. The proposed work site is located along the southern shore of Lake Erie at the Lake County Raw Water Pump Station at the north end of Bacon Road (Figures 1 and 2).

The proposed project is authorized under Section 103 of the 1962 Rivers and Harbors Act (P.L. 87-874). This legislation provides the U.S. Army Corps of Engineers (USACE) authority to construct small shore and beach restoration and protection projects not specifically authorized by Congress. An investigation to determine the applicability of Section 103 was initiated in response to a letter dated December 1, 1994 from the Lake County Board of County Commissioners.

The affected area encompasses a 600-foot section along the Lake Erie shoreline fronting the Lake County Raw Water Pump Station (Figures 1 and 2). The pump station is situated atop a 50-foot high bluff that rises above a 10- to 60-foot wide sand and gravel beach. Frequent Lake Erie storms have eroded the bluff and caused major bluff failure and the loss of several nearby residences, roads, and utilities. Currently, the pump station is located within 65 feet of the bluff; its access road is less than 10 feet from the bluff. The Ohio Department of Natural Resources' (ODNR) 1997 Coastal Erosion Area map for the project area estimates an average shoreline recession rate of 1.7 feet per year. A maximum recession rate of 12.3 feet per year has been measured at this section of shoreline.

The recommended plan would involve the construction of stone riprap shore protection along the base of the bluff (Figure 3). The protection would extend for a distance of approximately 600 feet along the shoreline and would extend to an elevation of 15 feet above

LWD¹.

A 15-foot wide gravel construction/maintenance access road would be cut at a 10 percent grade from the top of the bluff. Geotextile filter fabric would be placed along the revetment alignment to prevent the washing out of the finer material through the structure and into the lake. Over the fabric, a two-foot thick cover of underlayer stone would then be placed, followed by a 4.5-foot layer of armor stone. The toe of the revetment would be keyed into shale bedrock to a minimum depth of two feet. Figure 4 presents a typical cross section of the revetment.

Above the revetment, the bluff would be graded to a 1V:1.5H slope. To protect the slope, an erosion control blanket would be laid over the groomed slope, then covered with topsoil and seeded. Along the top of the bluff, suitable trees, shrubs, and/or vines could also be planted to provide food, cover, and nesting areas for local wildlife species, including migratory birds. This landscaping plan would be coordinated with the ODNR-Division of Wildlife.

Based on consultation with the National Park Service, Ohio Historical Society (State Historic Preservation Office), Lake County Historical Society, and Great Lakes Historical Society, no registered properties, or properties listed as being eligible, for inclusion in the National Register of Historic Places would be affected by the proposed construction activities.

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

Preliminary assessment of the impacts of the project [as discussed in the Section 404(b)(1) Evaluation applying the guidelines for specification of disposal sites for dredged or fill material in 40 CFR 230] concludes that the proposed construction would not cause unacceptable disruption to the water quality uses of the affected aquatic ecosystem.

On March 23, 2001, the USACE-Buffalo District initially submitted an application to the Ohio Environmental Protection Agency (OEPA) for Water Quality Certification, or waiver thereof, in accordance with Section 401 of the Clean Water Act. OEPA issued WQC for the project on October 24, 2001, however this certification has subsequently expired. Therefore, a new WQC is being requested.

To the maximum extent practicable, the work would be undertaken in a manner consistent with the State of Ohio Coastal Management Program. The USACE-Buffalo District submitted a Coastal Management Program Federal Consistency Determination to the Ohio Department of Natural Resources (ODNR) for their concurrence. On February 2, 2002, ODNR

¹Low water datum (LWD) for Lake Erie is 569.2 feet above mean sea level at Rimouski, Québec, Canada.

concluded with a Federal Consistency Determination that was previously submitted by USACE to Ohio Department of Natural Resources (ODNR). This determination has been re-evaluated and revised to reflect the current project plans and is being submitted to ODNR for their concurrence. Ten of these management policies have been considered to be relevant to the proposed project. USACE-Buffalo District's evaluation of the project has determined that, to the maximum extent practicable, it would be consistent with the State of Ohio Coastal Management Program (Appendix I).

This project is being reviewed under the following applicable laws:

- a. National Environmental Policy Act of 1969, as Amended, 42 USC 4321, *et seq.*
- b. Clean Air Act of 1955, as Amended, 42 USC 7401, *et seq.*
- c. Clean Water Act of 1977, as Amended ((Federal Water Pollution Control Act), 33 USC 1251, *et seq.*
- d. Water Protection and Flood Prevention Act, 16 USC 1001, *et seq.*
- e. Fish and Wildlife Coordination Act of 1958, as Amended, 16 USC 661, *et seq.*
- f. Endangered Species Act of 1973, as Amended, 16 USC 1531, *et seq.*
- g. Land and Water Conservation Fund Act, as Amended, 16 USC 4601-11, *et seq.*
- h. Federal Water Project Recreation Act, as Amended, 16 USC 406-1 (12), *et seq.*
- i. Archeological and Historic Preservation Act, as Amended, 16 USC 469, *et seq.*
- j. National Historic Preservation Act, as Amended, 16 USC 470a, *et seq.*
- k. Coastal Zone Management Act of 1972, as Amended, 16 USC 1451, *et seq.*

This Notice is being published in accordance with 33 CFR 325.3. Any person who has an interest that may be adversely affected by the construction of this project, may request a public hearing. The request must be submitted in writing to the District Engineer within 30 days of the date of this Notice and must clearly set forth the interest that may be affected, and the manner in which the interest may be affected by this activity.

Copies of this notice have been sent to the following Federal, State and local agencies and organizations:

Indian Nations:

Delaware Tribe
Miami Tribe
Seneca Nation of Indians
Seneca-Cayuga Tribe
Tonawanda Seneca Nation

Federal:

Senator Sherrod Brown
Senator Rob Portman
Representative Dave Joyce
Advisory Council on Historic Preservation
Federal Emergency Management Administration
U.S. Department of Agriculture:
 Farm Service Agency
 Forest Service
 Natural Resource Conservation Service
U.S. Department of Commerce:
 National Oceanic and Atmospheric Administration
U.S. Department of Energy
U.S. Department of Health and Human Services
U.S. Department of Housing and Urban Development
U.S. Department of the Interior:
 Fish and Wildlife Service
 National Park Service
U.S. Department of Transportation:
 Coast Guard
 Federal Highway Administration
U.S. Environmental Protection Agency

State:

Senator John Eklund
Representative Ron Young
Ohio Department of Health
Ohio Department of Natural Resources
Ohio Department of Transportation
Ohio Environmental Protection Agency
Ohio Historical Society

Local:

Northeast Ohio Areawide Coordinating Agency
Lake County Board of Commissioners
Concord Township
Madison Township
Painesville Township
North Perry Village
Village of Perry

Individuals/Organizations:

All Ohio Realty Corporation
Blackbrook Audubon Society
Ducks Unlimited
Great Lakes Commission
Great Lakes Historical Society
Great Lakes Sport Fishing Council
JJI Technologies LLC
Lake County Historical Society
League of Ohio Sportsmen
Lower Lakes Marine Historical Society
PET Processors, Inc.
Ohio SeaGrant
Sierra Club
The Nature Conservancy
The News Herald
Trout Unlimited

Any interested parties and/or agencies desiring to express their views concerning the proposed project may do so by filing their comments in writing no later than 4:30 p.m., 30 days from the date of issuance of this Notice. A lack of response will be interpreted as meaning that there is no objection to the proposed work.

The point of contact pertaining to this matter is Mr. William E. Butler of our Environmental Analysis Section, who can be contacted by calling 716.879.4268 (FAX: 716.879.4355; E-mail: william.e.butler@usace.army.mil) or by writing to his attention at the above address.



David A. Schulenberg
Acting Chief, Planning Branch

Attachment

FIGURE 1. PROJECT LOCATION

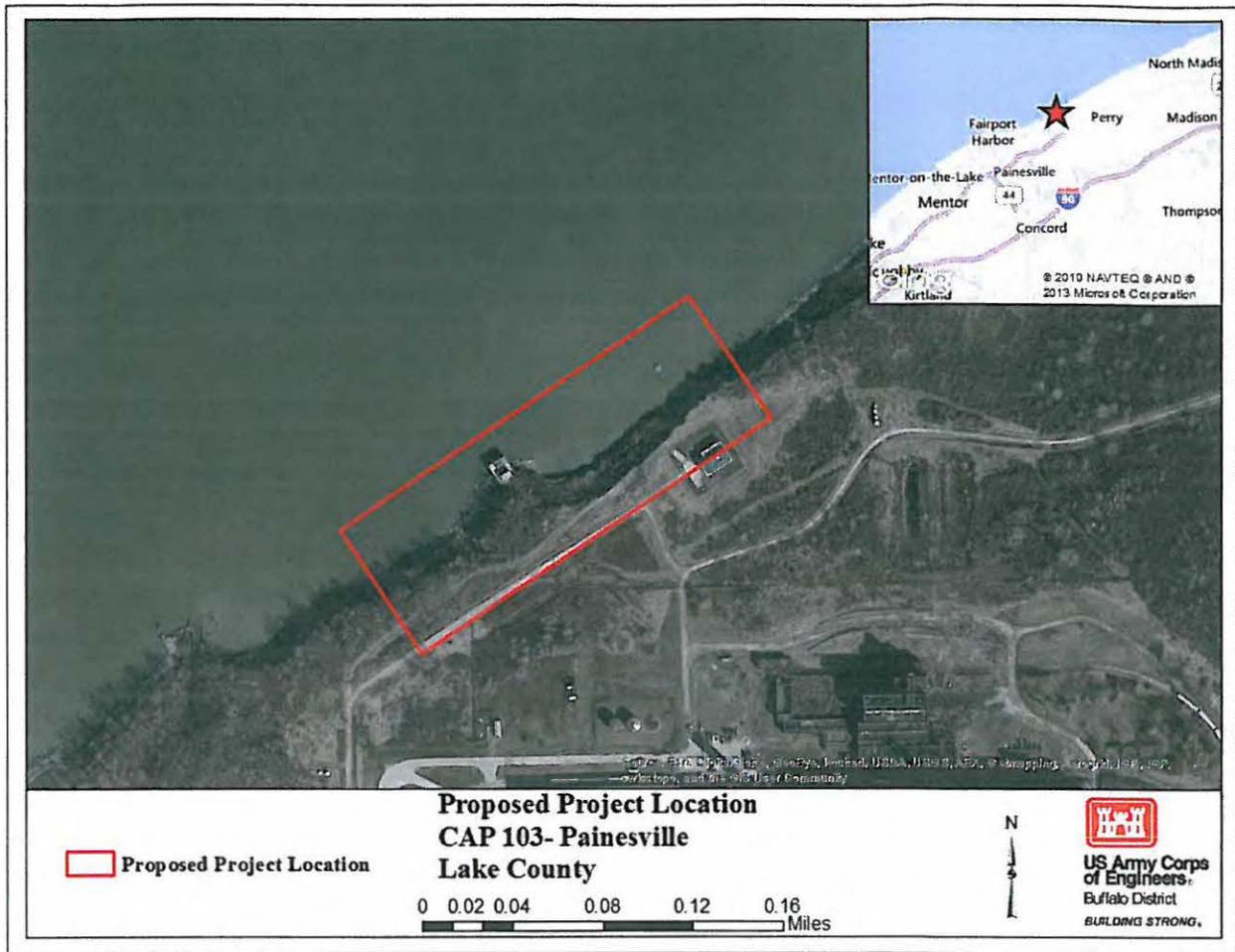


FIGURE 2. AERIAL VIEW

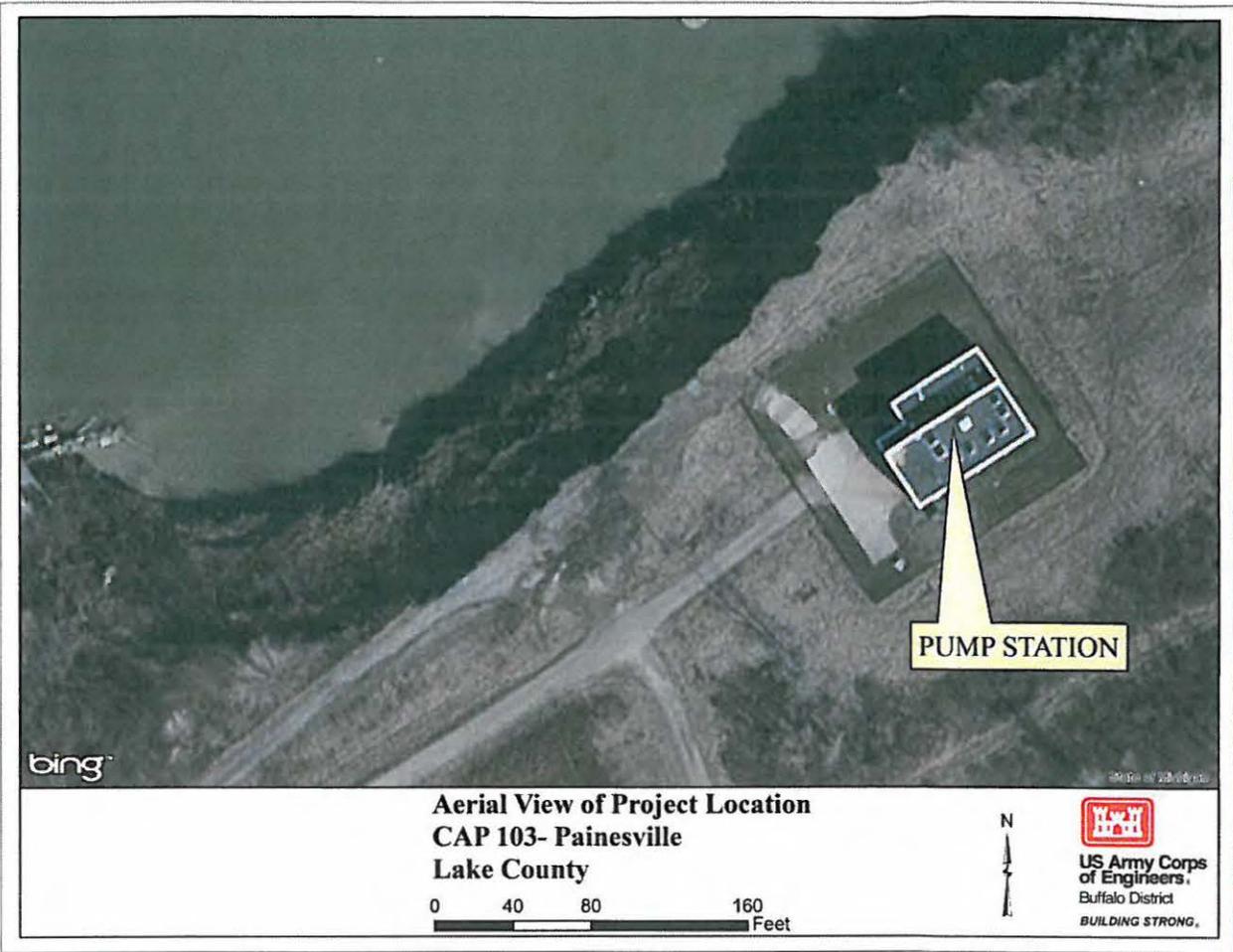
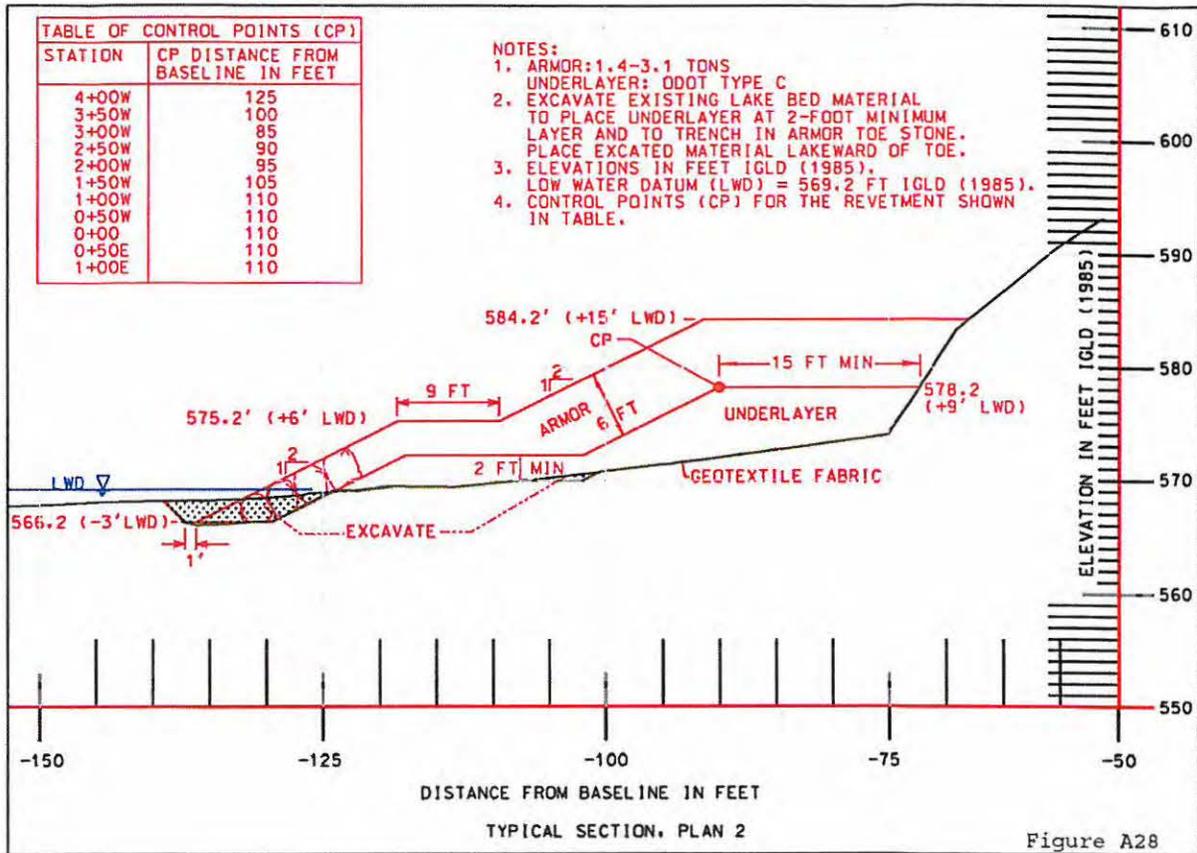


FIGURE 3. PROPOSED PLAN



FIGURE 4. TYPICAL CROSS SECTION



**SECTION 404(b)(1) EVALUATION
SECTION 103 SHORELINE PROTECTION PROJECT
LAKE COUNTY RAW WATER PUMP STATION
PAINESVILLE TOWNSHIP
LAKE COUNTY, OHIO**

1. PROJECT DESCRIPTION

1.1 Location. The project area is located in the Painesville Township in Lake County, Ohio. The proposed work site is located along the southern shore of Lake Erie at the Lake County Raw Water Pump Station at the north end of Bacon Road (Figures 1 and 2).

1.2 General Description.

1.2.1 The recommended plan would involve the construction of stone riprap shore protection along the base of the bluff (Figure 3). The protection would extend for a distance of approximately 600 feet along the shoreline and would extend to an elevation of 15 feet above LWD¹.

1.2.2 A 15-foot wide gravel construction/maintenance access road would be cut at a 10 percent grade from the top of the bluff. Geotextile filter fabric would be placed along the revetment alignment to prevent the washing out of the finer material through the structure and into the lake. Over the fabric, a two-foot thick cover of underlayer stone would then be placed, followed by a 4.5-foot layer of armor stone. The toe of the revetment would be keyed into shale bedrock to a minimum depth of two feet. Figure 4 presents a typical cross section of the revetment.

1.2.3 The proposed revetment would reduce bluff erosion and reduce the supply of sand to the littoral system. It is estimated that 18,000 CY of sand would be excavated along the bluff and eliminated from the littoral system for the life of the project. This loss would be compensated by the placement of an equal volume in the nearshore zone during project construction.

1.2.4 Above the revetment, the bluff would be graded to a 1V:1.5H slope. To protect the slope, an erosion control blanket would be laid over the groomed slope, then covered with topsoil and seeded. Along the top of the bluff, suitable trees, shrubs, and/or vines would be planted to provide food, cover, and nesting areas for local wildlife species, including migratory birds. This landscaping plan would be coordinated with the Ohio Department of Natural Resources (ODNR)-Division of Wildlife.

1.3 Authority and Purpose. This project is authorized under Section 103 of 1962 Rivers and Harbors Act. The investigation to determine the applicability of Section 103 was initiated in response to a letter dated December 1, 1994 from the Lake County Board of County Commissioners.

1.4 General Description of Fill Materials.

1.4.1 *General Characteristics of Material.* The primary materials which would be required to construct the proposed project would be underlayer stone (Ohio Department of Transportation Type "C") and armor stone (1.4 – 3.1 tons per unit). Sand, gravel, cobbles, and shale bedrock would be excavated along the toe of the proposed revetment and side-cast into the nearshore zone.

1.4.2 *Quantity of Material.* Project construction would involve the placement of approximately 5,000 tons of underlayer stone and 9,400 tons of armor stone. Approximately 1,000 cubic yards of sand, gravel, cobbles, and shale bedrock would be excavated along the toe of the proposed structure and side-cast into the nearshore zone. Approximately also 18,000 cy of sand would be placed into the nearshore zone in order to compensate from the loss of an equal amount of beach-building material from the littoral system.

1.4.3 *Source of Material.* Construction materials would be obtained from existing commercial sources. Sand, gravel, and cobbles along the shore are derived from the mass-wasting of the eroding bluff and nearshore deposition of littoral materials.

1.5 Description of the Proposed Discharge Site.

1.5.1 *Location.* All proposed work would be located along the Lake Erie shoreline at the Lake County Raw Water Pump Station in Painesville Township, Lake County, Ohio (Figures 1 and 2).

1.5.2 *Size.* Approximately 0.92 acre of shoreline would be affected by the placement of stone.

1.5.3 *Type of Site.* The proposed discharge site is unconfined.

1.5.4 *Type of Habitat.* The proposed discharge site consists of nearshore shallow water habitat with a sand, gravel and cobble substrate overlying shale bedrock.

1.5.5 *Timing and Duration of Discharge.* Construction of the proposed project is tentatively scheduled for June 30 through November 1, 2015 and should be completed within approximately four months.

1.6 Description of Discharge Method. Construction of the proposed project would be conducted from a 10 percent grade access road to be constructed from the top of the bluff. Construction equipment would first clear and grade the face of the bluff, then place the geotextile filter fabric, Underlayer and armor stone would be placed to the design cross section at the base of the bluff (Figure 4).

2. FACTUAL DETERMINATIONS

The construction materials to be used are chemically inert and physically immobile under existing conditions. These characteristics eliminate the possibility of chemical-biological interaction and any testing specified under 40 CFR Section 230.61 is not applicable in this instance.

2.1 Physical Substrate Determinations.

2.1.1 *Substrate Elevation and Slope.* The uniform 1V:2H slope at base of the proposed revetment of the proposed protection would replace the existing beach slope.

2.1.2 *Sediment Type.* Construction of the proposed project would result in the replacement of sand, gravel and cobble shoreline materials, and exposed bedrock with large stone units.

2.1.3 *Fill Material Movement.* No changes in the substrate as a result of erosion, slumpage, or other movement of the fill are anticipated outside of the discharge site.

2.1.4 *Physical Effects on Benthos.* The placement of fill would adversely affect bottom-dwelling organisms at the site by direct burial of immobile forms or forcing mobile forms to migrate. The submerged portions of the proposed protection would increase local benthic habitat diversity and may increase the diversity of local benthic communities.

2.1.5 *Other Effects.* Some compaction of the existing substrate would occur as a result of project construction.

2.1.6 *Actions Taken to Minimize Impacts.* Stone sizes and the design slope for the proposed project have been selected to provide the required erosion protection and remain stable under anticipated wave conditions.

2.2 Water Circulation and Salinity Determinations.

2.2.1 *Water:*

- a. Salinity - Not applicable.
- b. Water Chemistry - No significant effect.
- c. Clarity - Construction activities would result in a short-term increase in turbidity.
- d. Color - Water color at the project site would be temporarily altered during construction activities.
- e. Odor - No significant effect.
- f. Taste - Water taste may be affected during and for a short period following the completion of construction activities due to the presence of suspended particulates in the water column.
- g. Dissolved Gas Levels - No effect.
- h. Nutrients - No effect.
- i. Eutrophication - No effect.

2.2.2 *Current Patterns and Circulation:*

- a. Current Pattern and Flow – The toe of the proposed revetment may slightly alter nearshore current patterns, particularly during high lake level periods.
- b. Velocity - No effect.
- c. Stratification - No effect.
- d. Hydrologic Regime - No effect.
- e. Erosion – Construction of the proposed project would significantly reduce erosion rates along the project shoreline and decrease sedimentation in the nearshore zone.

2.2.3 *Normal Water Level Fluctuations.* No effect.

2.2.4 *Salinity Gradients.* Not applicable.

2.2.5 *Actions Taken to Minimize Impacts.* The horizontal dimension of the revetment is designed to be the minimum necessary to provide a stable structure. The proposed revetment would reduce bluff erosion and reduce the supply of sand to the littoral system. It is estimated that 18,000 CY of sand would be excavated along the bluff and eliminated from the littoral system for the life of the project. This loss would be compensated by the placement of an equal volume in the nearshore zone during project construction.

2.3 Suspended Particulate/Turbidity Determinations.

2.3.1 *Expected Changes in Suspended Particulates and Turbidity in the Vicinity of the Discharge Site.* Project construction is expected to increase local turbidity during the actual work period. No violations of State water quality standards are anticipated. Elevated suspended particulate levels associated with these activities would be limited to the immediate vicinity of the project site and would dissipate rapidly after completion of the project. Any turbidity plume that might develop would be influenced by wave conditions occurring at the time of project construction.

2.3.2 *Effects on Chemical and Physical Properties of the Water Column:*

- a. Light Penetration - Construction activities and resultant turbidity increases would temporarily decrease light penetration at the project site.
- b. Dissolved Oxygen - No significant effect.
- c. Toxic Metals and Organics - No significant effect.
- d. Pathogens - No effect.

e. Aesthetics - Increased turbidity in the project area may be temporarily aesthetically displeasing. However, the turbidity plume generated should dissipate before affecting widespread areas. In addition, ambient turbidity levels during construction may be sufficiently high so that any temporary increase in turbidity at the project site may not represent an excessive change. The shoreline protection project would help reduce loadings of suspended solids into the lake by reducing bluff erosion thereby contributing to a long-term reduction in turbidity levels. The presence of the protection would present an artificial, man-made appearance; however, the persistent erosion scars along the shoreline would be eliminated.

2.3.3 *Effects on Biota:*

a. Primary Production and Photosynthesis - Temporary increases in turbidity and suspended solids generated during project construction may cause minor decreases in primary production and photosynthesis. Some aquatic macrophytes (aquatic plants) may also be directly covered as a result of construction activities.

b. Suspension/Filter Feeders - The placement of fill along the shoreline may smother bottom-dwelling organisms within the project area. Temporary turbidity may interfere with their feeding.

c. Sight Feeders – Temporary increases in local turbidity levels may induce free-swimming fish species to avoid the project area. These species would return the site shortly after completion of the project.

2.3.4 *Actions Taken to Minimize Impacts.* The contractor would be required to develop and implement an Environmental Protection Plan identifying appropriate measures to avoid, minimize, and respond to accidental spills of petroleum, oil or lubricants. The placement of a geotextile filter fabric would prevent the washing out of finer bluff material through the structure and into the lake. Above the proposed revetment, the bluff face would be covered with an erosion control blanket, then seeded with appropriate grass species to provide vegetative cover to prevent further erosion into the lake.

2.4 Contaminant Determinations. The construction materials or excavated material would not introduce, relocate, or increase any contaminants.

2.5 Aquatic Ecosystems and Organisms Determinations.

2.5.1 *Effects on Plankton.* Only minor short-term adverse impacts would be expected to affect plankton due to limited, temporary increases in turbidity and suspended solid levels during project construction.

2.5.2 *Effects on Benthos.* The placement of fill material would cover and/or destroy immobile bottom-dwelling organisms. However, submerged portions of the proposed protection would increase local benthic habitat diversity.

2.5.3 *Effects on Nekton.* Free-swimming aquatic organisms would temporarily avoid the project area during the construction period. Submerged portions of the proposed protection would provide improved feeding and shelter habitat for these species.

2.5.4 *Effects on Aquatic Food Web.* Only minor, temporary effects on the aquatic food web are expected at the project site, primarily due to the mortality of benthic organisms as discussed in paragraph 2.1.4. Other effects would reflect the mortalities of plankton and nekton from physical impacts. Rapid recolonization of the project site is anticipated.

2.5.5 *Effects on Special Aquatic Sites:*

- a. Sanctuaries and Refuges - Not applicable.
- b. Wetlands - Not applicable.
- c. Mud Flats - Not applicable.
- d. Vegetated Shallows - Not applicable.
- e. Coral Reefs - Not applicable.
- f. Riffle and Pool Complexes - Not applicable.

2.5.6 *Threatened and Endangered Species.* No effect (per project consultation with the USFWS on November 16, 2000).

2.5.7 *Other Wildlife.* Disruption and disturbance by equipment and work crews during construction activities would result in a short-term avoidance of the project area by local wildlife species. Along the top of the bluff, suitable trees, shrubs, and/or vines would be planted to provide food, cover, and nesting areas for local wildlife species, including migratory birds. No significant wildlife habitat would be adversely affected.

2.5.8 *Actions Taken to Minimize Impacts.* A landscaping plan for the project would be coordinated with the ODNR-Division of Wildlife. During construction, the Contractor would be required to minimize turbidity and accidental spills of petroleum, oil or lubricants. To the maximum extent practicable, in-water construction would be avoided between April 15 and June 30 in order to avoid the potential disruption of fish spawning activities.

2.6 Proposed Discharge Site Determinations.

2.6.1 *Mixing Zone Determination.* Since the construction material would consist of inert stone fill, a mixing zone determination would not be applicable for this project.

2.6.2 *Determination of Compliance with Applicable Water Quality Standards.* The proposed discharge would be in compliance with the State of Ohio's Water Use Designations (3745-1-07) and Standards Applicable to All Waters (3745-1-04) in that it would not introduce harmful or toxic conditions or substances. Section 401 Water Quality Certification, or waiver thereof, has been requested from the Ohio Environmental Protection Agency.

2.6.3 *Potential Effects on Human Use Characteristics:*

a. Municipal and Private Water Supply – The major benefit of the proposed project is the protection of the Lake County Water Pump Station from shoreline erosion and the uninterrupted use of the public water supply.

b. Recreational and Commercial Fisheries - No effect.

c. Water-Related Recreation - No effect.

d. Aesthetics - Construction activities would temporarily increase turbidity in the nearshore zone, thereby detracting from the appearance of the area. The presence of the proposed protection would alter the appearance of the shoreline from its sparsely vegetated state to a more uniform slope of large stone units. Erosion scars would be eliminated and the upper bluff would be planted with a continuous vegetative cover. Nearshore turbidity resulting from shoreline erosion would be substantially reduced.

e. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves - No effect.

2.7 Determination of Cumulative Effects on the Aquatic Ecosystem. No effect.

2.8 Determination of Secondary Effects on the Aquatic Ecosystem. No effect.

FINDING OF COMPLIANCE

SECTION 103 SHORELINE PROTECTION PROJECT LAKE COUNTY RAW WATER PUMP STATION PAINESVILLE TOWNSHIP LAKE COUNTY, OHIO

1. No significant adaptations of the Section 404(b)(1) guidelines were made relative to this evaluation.
2. Alternative plans were evaluated for the protection of the Lake County Raw Water Pump Station. Placement of various types of protection along the shoreline (e.g., biotechnical shore protection, beach nourishment, artificial headland breakwater, offshore breakwaters, groins, concrete seawall, steel sheet pile seawall) were considered as alternatives to the recommended plan. Relocation of the plant was also considered as an alternative to constructing the proposed shoreline revetment. However, the benefits to be gained by these plans would not justify their additional economic costs and environmental impacts. Since the recommended plan would yield the greatest net benefits without significant detrimental social or environmental effects, it has been recommended for construction.
3. The planned placement of fill materials at the project site would not violate any applicable State water quality standards. The construction operation would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.
4. Use of the selected fill site would not harm any threatened or endangered species or any designated critical habitat.
5. The proposed placement of fill material would not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, or special aquatic sites. The life stages of aquatic life and other wildlife should not be adversely affected. No significant adverse effects on aquatic ecosystem diversity, productivity and stability, or recreational, aesthetic and economic values would occur.
6. Appropriate steps to minimize potential adverse impacts of the discharge on aquatic systems would be taken. During construction, the contractor would be required to minimize turbidity and accidental spills of petroleum, oil or lubricants. To the maximum extent practicable, in-water construction would be avoided between April 15 and June 30 in order to avoid the potential disruption of fish spawning activities.
7. On the basis of the guidelines, the proposed sites for the discharge of fill materials is specified as complying with these guidelines.