

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name	<u>ASHTABULA RIVER</u>	ProjectID: 05-29
Last Updated:	08/18/04	

City: Ashtabula

County: Ashtabula

State: OH

Country: USA

Bodies of Water: Ashtabula River and Harbor; Lake Erie

US EPA Region: V

Status (Active, Complete, or Monitoring Only): Active

Date On NPL: N/A

ROD/ESD Date: N/A

Operable Unit: N/A

Areas of Concern (length or acres): Lower 2 miles of the Ashtabula River from 1,000 feet upstream of the river mouth to the head of the navigational channel.

Other Characteristics of Water Body: A primary tributary to the Ashtabula River is Fields Brook, a federal Superfund site and reportedly the source of much of the Ashtabula River's contamination. Many areas of the Ashtabula River have not been dredged since 1962 as a result of sediment contamination restricting disposal of the dredged material; this reportedly is negatively impacting commercial shipping and recreational boating activities on the river.

Contaminants of Concern: PCBs and other chlorinated organic compounds; PAHs; heavy metals such as Cd, Pb, Hg, and Zn; other organics, e.g., hexachlorobenzene, hexachlorobutadiene; radionuclides, e.g., uranium, radium, thorium

Source of Contamination: Reportedly, the primary source of contaminants is the Fields Brook tributary (resulting from historical industrial discharges to Fields Brook). Additional sources are direct historical municipal and industrial discharges, commercial development, runoff and leachate infiltration from hazardous waste disposal sites, combined sewer overflows, coal handling facilities, and rail yards.

Contaminated Area Physical Characteristics: River sediment including previously dredged areas (existing navigational channel) and areas never before dredged. Highest levels of contaminants are located near the mouth of Fields Brook with the highest reported concentrations of contaminants being as follows: 56 ppm for As; 2,200 ppm for Cr; 350 ppm for Pb; 4.7 ppm for Hg; 830 ppm for Zn; 120 ppm for PCBs; 22 ppm for HCBd; 32 ppm for HCB; and 306 ppm for chlorobenzenes.

Source: Comprehensive Management Plan, June 2001 (Reference A-1050):

"The transport of the PCB-contaminated sediments has been documented in the area of the Ashtabula River between Station 120+00 and the 5th Street Bridge based on sediment testing (bulk chemistry) performed to determine the suitability of dredged sediment for open lake disposal. The last recorded dredging performed on Area "F" (authorized depth of -18 ft LWD) downstream of the bridge was 1976, and further dredging and open lake disposal was prevented due to the high levels of PCBs present in the sediments. The area of commerce between the mouth of the river and bridge involves the transshipment of materials (coal and stone) that do not contain PCBs (which are not naturally occurring), therefore the contamination is due to the downstream migration of contaminated sediments. It should be noted that the sediments downstream of the 5th Street Bridge are contaminated with both PCBs and PAHs, but the PCBs are the contaminant of concern and are the driving contamination of concern for determining

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Project Name ASHTABULA RIVER

ProjectID: 05-29

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sediment suitability for open-lake disposal. It was the bulk chemistry testing performed in the past and the fact that the levels of PCB contamination precluded dredging due to lack of suitability of the sediment for open lake disposal that had eventually led to the discontinuance of dredging in the area from Station 120+00 to the 5th Street Bridge, since there is no existing disposal facility available for Ashtabula.”

Type of Regulatory Action: A "Partnership Agreement" between US EPA, USACE, Ohio EPA, and local affiliates.

Overall Status Summary: Remediation of the lower Ashtabula River is being evaluated by the Ashtabula River Partnership with the assistance of the USACE-Buffalo District and targets the removal of 696,000 cy of contaminated sediments (150,000 cy TSCA; 546,000 non-TSCA) from a one and one-half mile section of the lower river. The primary source of contaminants to the river is reportedly the Fields Brook tributary, a designated Superfund site, located one and one-half miles upstream of the river mouth. The Partnership distributed a preliminary draft Comprehensive Management Plan (CMP) and an Environmental Impact Statement (EIS) to the USACE in Fall 1998 for comment; reportedly the USACE returned both documents to the Partnership in February 1999 requesting that additional detail be provided in the CMP regarding the environmental benefits of dredging as they relate to the river. Both documents were revised and then reissued for public comment in January 2001. A Final CMP was issued in June 2001.

The CMP is a “feasibility-level planning document for a one-time cleanup of contaminated sediments in the lower Ashtabula River and Harbor.” The CMP estimates the lower Ashtabula River to contain 1,000,000 cy of minor to heavily PCB-contaminated sediments containing an estimated 12 tons of PCBs. The CMP recommends the removal of the targeted sediment volume (696,000 cy) by mechanical dredging and dewatering of the removed sediment before disposal at the former RMI Sodium Plant site (State Road site); this is the same disposal location for sediments and soils removed from Fields Brook (Project ID 05-04). The CMP estimates the dredging will require five years to implement; two years for design and infrastructure construction and three years for dredging. The total estimated cost for dredging as presented in the CMP is \$47.6 million, of which \$15 million is part of a cost share provision for the local community. As part of a negotiated agreement, the Fields Brook PRPs will pay the cost share portion for the local community.

Of the total volume of sediment targeted, an estimated 581,000 cy is upriver of the 5th Street Bridge and is primarily contaminated with PCBs. This volume includes the 150,000 cy of sediment classified as TSCA. The remaining 115,000 cy of sediment that is targeted downstream of the 5th Street Bridge is primarily contaminated with PAHs.

The estimated volumes of TSCA and non-TSCA sediment were calculated using the modeling program Groundwater Modeling System. Modeling results showed that an estimated 29,000 cy of sediment existed that contained greater than 50 ppm PCBs. Due to uncertainties in the interpolations methods used by the model, the regulating agencies agreed that 40 ppm PCBs, not 50 ppm PCBs, would be used as the delineation concentration for estimating the volume of TSCA sediment to target. The determination of cutlines considering the practical limitations of the dredging equipment to be used resulted in the final volume of 150,000 cy of sediment that will be removed and disposed of as TSCA material.

Sediment requiring TSCA disposal, i.e., sediment containing 40 or more ppm PCBs, will be disposed in a separate cell from non-TSCA and Fields Brook materials in the former RMI Sodium Plant site landfill. Sediments identified as non-TSCA will be disposed in an existing nearby landfill used for flyash disposal, or, for uncontaminated sediments, open lake disposal may be used.

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name

ASHTABULA RIVER

ProjectID: 05-29

Last Updated:

08/18/04

As described in the CMP, the recommended method of dredging is "Deep Dredge." Dredging is to be performed in a manner that minimizes turbidity and resuspension of sediment. This may include the use of operational controls including limiting the bucket cycle time, prohibiting nighttime dredging operations, and allowing only the partial filling of barges. Silt curtains may also be used if warranted by the project design. Water quality controls are to be used to monitor for the effects of dredging on the water column. Dredged material will be placed in watertight barges for transport to a land based facility for dewatering.

A five to ten acre dewatering facility will be built on property owned by Norfolk Southern and would include a barge mooring area, dredged sediment holding/settling basins, and water treatment and support facilities. Sediment dewatering will take place first on the transport barges, where supernatant will be pumped from the surface of the sediment, and then in impermeable lined earthen settling basins. The supernatant from the settling basins will be collected in a sump from which it will be pumped to a secondary settling basin and allowed to settle. The dewatered sediment will be loaded onto trucks for transport to the landfill. The supernatant will be treated using an onsite modular treatment system comprising flocculation, multi-media filtration, and carbon treatment. State water quality standards will be met for the discharge.

In February 2004, the USACE–Buffalo District issued a Sources Sought Notice for architect and engineering services associated with the project. The scope of the notice covered contaminated sediment dredging, dewatering, water treatment, transportation, and disposal and was intended to collect information from companies having the capabilities to perform the work as designated in the CMP.

As of July 2004, design for the dredging was about 75% complete and is being prepared by the USACE; completion of design is dependant on the level of federal funding made available to the project. The USACE anticipates that design will be completed in early 2005, construction of support facilities will begin in late 2005, and dredging will begin in early 2006 and be completed in 2009.

Remedial Action Planned: ☒

Risk Assessment: ☒

Remedial Action Implemented: ☐

Status of Dredging ☐

PRPs: ☒

Contacts: ☒

References: ☒

Modeling: ☒

Fishing Advisory: ☒

Key Conditions: confined disposal facility, dredging, extended (>1 mile) river, Great Lakes AOC, hydrodynamic modeling

REMEDIAL ACTION PLANNED

Project Name	<u>ASHTABULA RIVER</u>	ProjectID: 05-29
Last Updated:	08/18/04	
Target Sediment Cleanup Standards (TSCS):	Navigational areas will be dredged based on mass removal; other areas have target levels established.	
How TSCS Established:		
Target Bank and Floodplain Cleanup Levels (if applicable):		
Other Target:		
Environmental Sample Data References:	<ul style="list-style-type: none">• Sediment:• Water:• Fish:	
Estimated Target Volume:	150,000 cy TSCA; 546,000 cy non-TSCA	
Planned Disposal Method:	An upland confined disposal facility; reportedly disposal of non-TSCA material will be at a nearby landfill constructed to contain flyash and TSCA material may be disposed of at the landfill being constructed for Fields Brook TSCA material. Material considered uncontaminated may qualify for open lake disposal.	
Estimated Calendar Time to Implement Remedy:	2005 to 2009	
Estimated Time to Implement Remedy:	5 years (two for design and preparatory construction; three years for dredging)	
Estimated Cost to Implement Remedy:	\$47.6 million	
Stated Remedial Action Objectives (and Source):		
Measures of Success to be Used:		
Planned Monitoring and Restoration:		
Agency Position on Sediment Removal (and Source):		

RISK ASSESSMENT

Project Name ***ASHTABULA RIVER***

ProjectID: 05-29

Last Updated: 01/06/03

RA Type: Human Health Baseline

RA Status: Complete

RA Objectives: “As one part of the ARCS program, baseline human health risk assessments are being prepared for five AOCs: Ashtabula River . . . The objectives of the risk assessments are to 1) estimate the magnitude and frequency of human exposures to sediment-derived contaminants in the AOC, and 2) estimate the risk of adverse effects resulting from both typical and reasonable maximum exposures (i.e., the highest exposure that is reasonably expected to occur at a site) to contaminants. Risk estimates are determined for both noncarcinogenic (i.e., chronic or subchronic effects) and carcinogenic (i.e., probability of an individual developing cancer over a lifetime) effects resulting from direct and indirect exposures to sediment-related contaminants. These risk estimates are made using conservative assumptions about exposure scenarios when complete data are not available. Thus, the risk estimates are designed to be over protective of human health.”

***Company
Performing RA:*** ASci Corporation, Athens, GA

RA Reference Report: Reference A-915

***RA Summary and
Conclusions:*** “This assessment focused on one pathway by which residents of the lower Ashtabula River were likely to be exposed to sediment-derived contaminants: the consumption of contaminated fish. Other exposure pathways were determined to be either incomplete (e.g., ingestion of sediments) or insignificant in terms of risk (e.g., ingestion of surface water during infrequent swimming events).”

“Noncarcinogenic risk as represented by the Hazard Index (HI), were below levels of concern (i.e., less than 1) for most of the typical and reasonable maximum exposure scenarios. For fish collected from the Ashtabula Harbor, only the consumption of whole carp under the subsistence exposure scenario resulted in a significant risk (HI=2). The subsistence consumption of large mouth bass fillets, bluegill fillets, and whole carp (HI=1, 2, and 20, respectively) collected from below Fields Brook could pose a potential noncarcinogenic risk to anglers and their families; the reasonable maximum consumption of carp at this site was also of concern (HI=3). The estimated risks were mostly attributable to methyl mercury and copper contamination.”

“A carcinogenic risk estimate could not be calculated for the consumption of small/large mouth bass collected from the Ashtabula Harbor and for bluegills collected from both the river and harbor; this was because no carcinogens were detected in these fish fillets. The upper-bound carcinogenic risk estimates associated with the consumption of large mouth bass fillets collected below Fields Brook were below concern levels (i.e., less than 10⁻⁶) under all three exposure scenarios. Methylene chloride was the carcinogen detected in the bass for which a toxicity value was available. The consumption of whole carp was of concern at both the harbor and river under all three exposure scenarios (ranging from 4x10⁻⁶ to 3x10⁻³). The carcinogenic risk from consuming carp was attributable to PCB contamination.”

“The human health risks attributable to carp consumption were probably overestimated because the risk estimates were based on data derived from whole carp instead of fillets. In addition, the data were also based on raw fish; different preparation and cooking techniques may reduce concentrations of hydrophobic organic contaminants (e.g., PCBs) in fish if the fat is trimmed away prior to cooking.”

POTENTIALLY RESPONSIBLE PARTIES

Project Name **ASHTABULA RIVER**

ProjectID: 05-29

PRP Name: PRP INFORMATION NOT RELEASED

PRPID:

Street Address:

City:

State:

KEY CONTACTS

Project Name **ASHTABULA RIVER**

ProjectID: 05-29

Last Name: KEY CONTACT INFORMATION NOT RELEASED

Contact ID:

First Name:

Title:

Company:

Address:

City:

State:

Postal Code:

Work Phone # :

Other Phone #:

Fax # :

Email Address:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: A

ReferenceID: 151

Title: *Information Summary, Area of Concern: Ashtabula River, Ohio - ARCS (Assessment and Remediation of Contaminated Sediments)*

Location: AEM

Category: Contaminated Sediments: Overview of Issues

Prepared by/Author: H.E. Tatem, D.L. Brandon, C.R. Lee, J.W. Simmers and J.G. Skogerboe

Preparer/Author Address: U.S. Army Corps of Engineers
U.S. Army Engineer Waterways Experiment Station
Environmental Laboratory
3909 Halls Ferry Road
Vicksburg, MS 39180-6199

Prepared For: US EPA, Great Lakes National Program Office, Chicago, IL 60604.

Date Published: December 1990

Key Words and Phrases:

Reference Type: A

ReferenceID: 298

Title: *Ashtabula River Partnership: Fact Sheet*

Location: AEM

Category: Site Update

Prepared by/Author: Natalie Farber

Preparer/Author Address: Ohio EPA

Prepared For: General Public

Date Published: 1996

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: A

ReferenceID: 915

Title: *Baseline Human Health Risk Assessment: Ashtabula River, Ohio, Area of Concern*

Location: AEM

Category: Risk Assessment

Prepared by/Author: Judy L. Crane

Preparer/Author Address: AS&I Corporation
Athens, GA 30613

Prepared For: Environmental Research Laboratory, Office of Research and Development,
US EPA, Athens, Georgia 30613

Date Published: December 1992

Key Words and Phrases:

Reference Type: A

ReferenceID: 917

Title: *Ashtabula River, Ohio, Sedimentation Study, Report 4, Numerical Model*

Location: AEM

Category: Contaminated Sediments: Investigation/Delineation

Prepared by/Author: Ronald E. Heath; Allen M. Teeter; Gary E. Freeman; William L. Boyt

Preparer/Author Address: US Army Corps of Engineers
Army Engineer Waterways Experiment Station
Engineer Research and Development Center
Vicksburg, MS

Prepared For: General Public

Date Published: September 1999

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: A

ReferenceID: 918

Title: ***Remedial Action Plan - Stage I Investigation Report Executive Summary***

Location: AEM

Category: Contaminated Sediments: Investigation/Delineation

Prepared by/Author: Ohio EPA

Preparer/Author Address: Division of Water Quality Planning and Assessment
Lazarus Government Center
122 South Front Street
Columbus, OH 43215-1099

Prepared For: Ashtabula River Remedial Action Plan Advisory Council

Date Published: December 1991

Key Words and Phrases:

Reference Type: A

ReferenceID: 1097

Title: ***Ashtabula River Partnership Preliminary Final Comprehensive Management Plan, Volumes I and II***

Location: AEM

Category: RI/FS

Prepared by/Author: Ashtabula River Partnership

Preparer/Author Address:

Prepared For:

Date Published: June 2001

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: A

ReferenceID: 1098

Title: *Initial Appraisal Report - Water Resources Development Act of 1990, Section 312, Ashtabula, Ohio*

Location: AEM

Category: RI/FS

Prepared by/Author: U S Army Corps of Engineers - Buffalo District

**Preparer/Author
Address:**

Prepared For:

Date Published: November 1994

**Key Words and
Phrases:**

Reference Type: A

ReferenceID: 1133

Title: *Value Engineering Study Summary Report*

Location: AEM

Category: Remedial Design

Prepared by/Author: (1) USACE Office of the Chief Engineers Value Engineering Study Team; (2) OVEST

**Preparer/Author
Address:**

Prepared For: Ashtabula River Partnership

Date Published: December 2002

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 139

Title: *Ashtabula River Partnership - Committee Structure*

Location: AEM

Category: Miscellaneous

Prepared by/Author: Ashtabula River Partnership

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: November 19, 1996

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: B

ReferenceID: 141

Title: *Great Lakes Binational Toxics Strategy Octachlorostyrene (OCS)
Report: A Review of Potential Sources*

Location: AEM

Category: Miscellaneous

Prepared by/Author: US EPA Region V

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: January 4, 1999

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 794

Title: *Realizing Remediation I - Great Lakes Contaminated Sediments
Ashtabula River and Harbor
(see Reference A-905)*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: US EPA Great Lakes National Program Office (GLNPO)

**Preparer/Author
Address:** 77 West Jackson Boulevard (G-17J)
Chicago, IL 60604

Prepared For: General Public

Date Published: August 1, 2002

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: B

ReferenceID: 840

Title: *Realizing Remediation II - Updated Summary:
Ashtabula River and Harbor (downstream of Fields Brook
Superfund Site)
(see Reference A-907)*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: US EPA Great Lakes National Program Office (GLNPO)

**Preparer/Author
Address:** 77 West Jackson Boulevard (G-17J)
Chicago, IL 60604

Prepared For: General Public

Date Published: July 2000

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 857

Title: *Remedial Action Plan Newsletter*

Location: AEM

Category: Site Update

Prepared by/Author: Ashtabula River Remedial Action Plan Advisory Council

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: 2000 Summer

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: B

ReferenceID: 858

Title: *Ohio EPA Schedules Community Meeting to Discuss the Ashtabula River*

Location: AEM

Category: Site Update

Prepared by/Author: Ohio EPA

Preparer/Author Address: Lazarus Government Center
122 S. Front Street
Columbus, OH 43215-1099

Prepared For: General Public

Date Published: July 25, 2001

Key Words and Phrases:

Reference Type: B

ReferenceID: 859

Title: *Executive Summary of Project Remedial Actions as Proposed by the Ashtabula River Partnership for the Cleanup of the Ashtabula River, Ashtabula, OH (Draft)*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author Address:

Prepared For: General Public

Date Published: November 1997

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: B

ReferenceID: 1060

Title: *Sources Sought Notice -- Ashtabula River Contaminated
Sediments Dredging Project*

Location: AEM

Category: Contractor and Vendor Information

Prepared by/Author: USACE - Buffalo District

**Preparer/Author
Address:**

Prepared For:

Date Published: February 6, 2004

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 1061

Title: *Ashtabula River Partnership Committees
<http://www.epa.gov/region5/sites/ashtabula/committee.htm>*

Location: AEM

Category: Miscellaneous

Prepared by/Author:

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: February 6, 2004

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 1095

Title: *Ashtabula River Area of Concern
<http://www.epa.gov/glnpo/aoc/ashtabula.html>*

Location: AEM

Category: Site Update

Prepared by/Author: US EPA Region V

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: April 9, 2003

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: C

ReferenceID: 217

Title: *Great Lakes cleanups to get pilot tests*

Location: AEM

Category: Contaminated Sediments: Treatment Technologies

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Superfund Week

Date Published: August 9, 1991

Key Words and Phrases: Buffalo River; Ashtabula River; Saginaw River; Sheboygan River; Grand Calumet River

Reference Type: C

ReferenceID: 642

Title: *Ashtabula River Group to Support Recreational Improvements in River*

Location: AEM

Category: Site Update

Prepared by/Author:

Preparer/Author

Address:

Prepared For: Hazardous Waste/Superfund Week

Date Published: January 29, 2001

Key Words and Phrases:

Reference Type: D

ReferenceID: 79

Title: *Polluters, EPA Clean Up Riverbed*

Location: AEM

Category: Site Update

Prepared by/Author: Katherine Rizzo

Preparer/Author

Address:

Prepared For: The Associated Press

Date Published: January 1, 1999

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: D

ReferenceID: 110

Title: *Harbor cleanup may dredge taxpayers' pockets*

Location: AEM

Category: Miscellaneous

Prepared by/Author: Jim Barnett and Brent Hunsberger

Preparer/Author

Address:

Prepared For: The Oregonian

Date Published: March 20, 2000

**Key Words and
Phrases:**

Reference Type: E

ReferenceID: 6

Title: *Pilot-Scale Demonstrations of Thermal Desorption for the
Treatment of Contaminated River Sediment*

Location: AEM

Category: Contaminated Sediments: Treatment Technologies

Prepared by/Author: (1) David J. Conboy, (2) B. Thomas Kenna, (3) Judith Leithner, (4) Stephen Yaksich, and (5) Daniel Averett

**Preparer/Author
Address:** (1 thru 4) U.S. Army Corps of Engineers - Buffalo District, Buffalo, NY. 14207-3199

(5) U.S. Army Engineer Waterway Experiment Station, Vicksburg, MS.

Prepared For: Dredging 1994 - Proceedings of the Second International Conference on Dredging and Dredged Material Placement
Volumes 1 & 2

Date Published: 1994

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: E

ReferenceID: 117

Title: *Sediment Management Seminar 2000 Proceedings (Reference E-121)*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: Blasland, Bouck & Lee, Inc.

Preparer/Author Address: 6723 Towpath Road
P.O. Box 66
Syracuse, NY 13214

Prepared For: Attendees

Date Published: February 10-11, 2000

Key Words and Phrases:

Reference Type: H

ReferenceID: 22

Title: *Ashtabula River Partnership Map*
<http://www.epa.gov/region5/sites/ashtabula/map.htm>

Location: AEM

Category: Miscellaneous

Prepared by/Author:

Preparer/Author Address:

Prepared For: General Public

Date Published: February 6, 2004

Key Words and Phrases:

Reference Type: I

ReferenceID: 48

Title: *Sierra Club endorses environmental dredging: goal is to clean up polluted Ashtabula River - Ellicott Case Studies*

Location: AEM

Category: Site Update

Prepared by/Author: Baltimore Sun (January 2, 1999)

Preparer/Author Address:

Prepared For: Ellicott International

Date Published: 2000

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: M

ReferenceID: 64

Title: *Partnership Produces Plan for Cleanup of Ashtabula River, Avoids Superfund Fight*

Location: AEM

Category: Site Update

Prepared by/Author: Susan Bruninga

**Preparer/Author
Address:**

Prepared For: BNA Daily Environmental Report

Date Published: January 8, 1999

**Key Words and
Phrases:**

Reference Type: M

ReferenceID: 68

Title: *Pilot-Scale Demonstration of Thermal Desorption for the Treatment of Ashtabula River Sediments (Abstract only)*

Location: AEM

Category: Contaminated Sediments: Treatment Technologies

Prepared by/Author: U.S. Army Corps of Engineers

**Preparer/Author
Address:** Buffalo District

Prepared For: ARCS Program, US EPA, GLNPO, Chicago, IL

Date Published: Undated

**Key Words and
Phrases:**

Reference Type: M

ReferenceID: 151

Title: *Bench-Scale Evaluation of ReTeC's Thermal Desorption Technology on Contaminated Sediments from the Ashtabula River (Abstract, Executive Summary, and Introduction)*

Location: AEM

Category: Contaminated Sediments: Treatment Technologies

Prepared by/Author: Michael Giordano and Evelyn Meagher-Hartzell

**Preparer/Author
Address:** Science Applications International Corporation
Cincinnati, OH

Prepared For: Assessment and Remediation Contaminated Sediments (ARCS) Program

Date Published: August 1994

**Key Words and
Phrases:**

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: M

ReferenceID: 158

Title: *Bench-Scale Evaluation of Bioremediation for the Treatment of Sediments from the Ashtabula, Buffalo, Saginaw and Sheboygan Rivers (Abstract)*

Location: AEM

Category: Contaminated Sediments: Treatment Technologies

Prepared by/Author: W. Jack Jones, Rochelle Araujo, and John E. Rogers

Preparer/Author Address: US EPA NERL-Athens
National Exposure Research Laboratory
Ecosystems Research Division
Athens, GA

Prepared For: US EPA
Great Lakes National Program Office
Assessment and Remediation of Contaminated Sediments (ARCS) Program
Chicago, IL 60604,

Date Published: 1996

Key Words and Phrases:

Reference Type: M

ReferenceID: 217

Title: *Ashtabula River, Ohio*

Location: AEM

Category: Site Update

Prepared by/Author: Beth A. Millemann

Preparer/Author Address:

Prepared For: Muddy Waters - The Toxic Wasteland Below America's Oceans, Coasts, Rivers and Lakes (Reference M-220)

Date Published: August 1999

Key Words and Phrases:

REFERENCES

Project Name ASHTABULA RIVER

ProjectID: 05-29

Reference Type: M

ReferenceID: 329

Title: *PAHs in Dated Sediments of Ashtabula River, Ohio, USA*

Location: AEM

Category: Mass Balance

Prepared by/Author: (1) Kai Li, (2) Erik R. Christensen, (3) Ryan P. Van Camp, (4) Ipek Imamoglu

Preparer/Author (1) Pharmaceutical Products Development, Inc.

Address: 8500 Research Way
Middleton, WI 53562

(2) None

(3) Ramaker and Associates, Inc.

1120 Dallas Street

Sauk City, WI 53583

(4) Department of Civil Engineering and Mechanics
and Center for Great Lakes Studies

University of Wisconsin - Milwaukee

Milwaukee, WI 53201

Prepared For: Environmental Science & Technology (Vol. 35, No. 14)

Date Published: 2001

**Key Words and
Phrases:**

MODELING

Project Name: ASHTABULA RIVER

ProjectID: 05-29

Last Updated: 08/18/04

Modeling Performed: Sediment Transport

Modeling Objectives: Evaluate the downstream transport of contaminated river sediment.

Modeling Description: Numerical Modeling as well as field data collection and analysis.

Company Performing Modeling: U.S. Army Corps of Engineers Waterways Experiment Station

Modeling Status: Complete

Modeling Summary: Source: CMP, June 2001 (Reference A-1050):

“A study was commissioned by the USEPA to determine if the contaminated river sediments have the potential to move. At the request of the USEPA Region V office a sediment transport model was conducted by U.S. Army Corps of Engineers Waterways Experiment Station (WES), which involved numerical modeling and field data collection and analysis. The field data collection and analysis provided the parameters (i.e., sediment erodability) that were used to develop the model. The results of the numerical modeling indicated that the maximum computed depth of scour for the 100 year return period flood event with the Lake Erie stage held at the low water datum was generally less than 1 meter throughout the area of interest and less than 0.6 meters in the upper turning basin. WES determined the volume, extent, and surface area weighted estimates of PCB-laden sediment in the Ashtabula River, assuming that a 100 year event scoured to the calculated depths that resulted from the numerical modeling. The PCB concentrations for the scoured sediment ranged from 0.04 to over 50 ppm. The Department of Defense Groundwater Modeling System (GMS) was used to accomplish this task. The results indicated a total scour volume of 63,100 cubic yards of river sediment, of which 2,300 cubic yards contain PCBs > 50 ppm. Furthermore, for the short term case (immediately after dredging) the angle of repose for Ashtabula River sediments is anticipated to be between 1V:2H and 1V:3H, and for the long term case the natural angle of repose for Ashtabula River sediments is anticipated to be between 1V:6H and 1V:8H. Due to the mixing of river sediments during sediment transport, it is reasonable to anticipate that PCB-contaminated sediments exist in the cross sectional area between the short and long term cases, and it is fully anticipated that this sediment will slough off into the Federal channel at some time in the near future and will impact on future disposal operations and options.”

FISH ADVISORIES

Project Name **ASHTABULA RIVER**

ProjectID: 05-29

Advisory: Ashtabula River

AdvisoryID: 440

Extent: 24th Street Bridge to Lake Erie

Pollutant: hexachlorbenzene

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Rescinded

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 441

Extent: 24th Street Bridge to Lake Erie

Pollutant: mercury

Species: bass-largemouth

Population: RSP

Population Definition: Restricted Consumption-Subpopulation(s): Advises subpopulations potentially at greater risk, e.g., pregnant or nursing women, and/or small children, to restrict the size of the organism and/or frequency of meals consumed.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 442

Extent: 24th Street Bridge to Lake Erie

Pollutant: PCBs (total)

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Rescinded

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

FISH ADVISORIES

Project Name **ASHTABULA RIVER**

ProjectID: 05-29

Advisory: Ashtabula River

AdvisoryID: 443

Extent: 24th Street Bridge to Lake Erie

Pollutant: PCBs (total)

Species: bass-smallmouth

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 444

Extent: 24th Street Bridge to Lake Erie

Pollutant: PCBs (total)

Species: carp-common

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 445

Extent: 24th Street Bridge to Lake Erie

Pollutant: PCBs (total)

Species: catfish-channel

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

FISH ADVISORIES

Project Name **ASHTABULA RIVER**

ProjectID: 05-29

Advisory: Ashtabula River

AdvisoryID: 446

Extent: 24th Street Bridge to Lake Erie

Pollutant: PCBs (total)

Species: walleye

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 447

Extent: 24th Street Bridge to Lake Erie

Pollutant: pentachlorobenzene

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Rescinded

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447

Advisory: Ashtabula River

AdvisoryID: 448

Extent: 24th Street Bridge to Lake Erie

Pollutant: tetrachloroethane

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 786

Status (Active or Rescinded): Rescinded

Date Rescinded:

Contact Name: Robert Johnson

Contact Number: 614-644-6447
