



United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

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U.S. EPA PROPOSES CHANGES TO CLEANUP WORK

**Manistique River and Harbor Site
Manistique, Michigan**

March 1996

This fact sheet tells you about:

- U.S. EPA's proposed changes to cleanup project
- U.S. EPA's 1995 construction and dredging activities in the North Bay area
- U.S. EPA's plans, pending public comments, for 1996 and 1997 site activities
- Public involvement opportunities
- How you can obtain additional site-related information

PROPOSED CHANGES TO CLEANUP WORK

The U.S. Environmental Protection Agency (EPA) is proposing to dredge areas of the Manistique river and harbor that were previously planned to be capped. The proposed change is due to the following factors:

- U.S. EPA's dredging activities, in partnership with the potentially responsible parties (PRP) and the community, have demonstrated that dredging can remove areas of contaminated sediments in a protective and cost-effective manner.
- Based upon U.S. EPA's dredging activities during 1995, dredging costs have been found to be comparable to capping.
- Dredging will minimize long-term environmental risks and financial liability to the PRPs and the community.

U.S. EPA and the PRPs have reached an agreement in principle whereby the PRPs would provide a set amount of money for U.S. EPA to dredge the river and harbor. Pending public comments, U.S. EPA plans to remove and dispose of the contaminated sediments beginning mid-summer 1996. Reasons for the proposed change are summarized below, and are based on the results of U.S. EPA's dredging operations during 1995.

First, release of contaminated sediments due to resuspension during dredging is not expected to be significant. U.S. EPA's dredging activities in the North Bay area demonstrated that resuspension into the river is highly unlikely. However, if resuspension of sediments occurred, silt barriers are expected to contain resuspended sediments.

U.S. EPA estimates that 95 to 99 percent of contaminated sediments in the dredging area would be removed, representing 13,000 to 14,000 pounds of polychlorinated biphenyls (PCB). It is expected that removal of these sediments would result in a reduction of PCB levels in fish. Within two to three years after dredging activities, PCB concentrations in fish are expected to drop below current health advisory levels. Once the dredging and removal activities are completed, approximately 800 pounds of sediments outside of the dredging area with low PCB concentrations will remain. Also, between 140 and 700 pounds of PCB residuals within the dredging area will remain. It is expected that most sediments with PCB concentrations above 10 parts per million (ppm) will be removed. However, if PCB concentrations in surficial sediments within the dredging area exceed 10 ppm after dredging activities are completed, clean sand will be placed over those sediments.

Dredged sediments with high PCB concentrations would be disposed of in a facility regulated by U.S. EPA's Toxic Substances Control Act (TSCA) program, and sediments with low, nonhazardous PCB concentrations would be disposed of at a landfill for nonhazardous materials, as allowed by TSCA.

U.S. EPA's 1995 DREDGING ACTIVITIES

U.S. EPA's dredging activities, conducted in partnership with the PRPs and the Manistique community, have resulted in an environmentally protective and cost-effective removal of 10,000 cubic yards of PCB-contaminated sediment from the North Bay area.

During summer 1995, a cofferdam and silt barriers with floating booms were installed in the dredging area to contain possible resuspended sediments. These barriers were determined to effectively contain resuspended sediments during debris removal, prior to dredging activities.

No resuspension of sediments occurred during hydraulic dredging. This was confirmed by visual observations, surface water analysis, and other measurements.

Also during summer 1995, U.S. EPA constructed a water treatment facility to separate sediments from dredge water, and to treat the dredge water. The water treatment facility included sediment screens, settling tanks and basins to separate solids, and filters to treat the dredge

Disposal costs for dredged sediments are estimated to be between \$1 million and \$4 million. An estimated 3 to 5 percent of the total dredged material would be disposed of at a TSCA-regulated facility. Total costs for dredging the harbor and river hotspot and disposing of contaminated materials is estimated to be between \$6 million and \$11 million. Estimated capping costs are similar.

During dredging activities U.S. EPA would monitor surface water. U.S. EPA would also conduct sediment and fish sampling for several years after the dredging activities to confirm that cleanup standards were met.

These dredging activities are expected to provide environmental and economic advantages to the PRPs and the community, as most of the highly contaminated sediments would be removed from the Manistique river and harbor. This would minimize long-term financial liability to the PRPs and the community and would fully restore the river and harbor to unrestricted recreational and commercial use.

water. Two one-million gallon storage lagoons were also constructed to store treated water, pending PCB analysis to confirm that it was PCB-free. After the analytical results confirmed that the treated water was PCB-free, the water was discharged back into the Manistique river.

Dredged solids were separated from the dredge water. The solids were then dried on a storage area located on Manistique Papers, Inc., property. Disposal costs were lower than expected, as approximately 97 percent of dredged sediments had such low concentrations of PCBs that they could be safely disposed of in a nonhazardous landfill. Woodchips and sawdust with high PCB concentrations were separated from cleaner sediments by screens, and represented about 3 percent of the total dredged mass. These materials were transported by rail to a TSCA-regulated PCB disposal facility in Utah. Manistique Papers, Inc., provided access to the rail spur.

Dredging activities were suspended in November 1995 because of weather conditions, and demobilization activities were completed in December 1995.

The success of this project has been due, in large part, to the partnership between U.S. EPA and the PRPs, Manistique Papers, Inc., and Edison Sault Electric Company. Manistique Papers, Inc., provided access to properties adjacent to the dredging area, constructed a water diversion ditch, and allowed U.S. EPA to use

surplus equipment and materials. Edison Sault Electric Company also lent U.S. EPA surplus streetlights and has deferred payment of electrical fees. U.S. EPA plans to work closely with the PRPs to complete the cleanup of the Manistique river and harbor in this same spirit of cooperation and partnership.

BACKGROUND

PCB contamination of sediments in the Manistique river and harbor have been evaluated by state and federal agencies beginning in the 1970s. In August 1994, an Engineering Evaluation and Cost Analysis was completed, and U.S. EPA issued its recommendation for dredging the river and harbor. In November 1995, after considering (1) extensive public comments and (2) the results of an Interagency Review Team review, U.S. EPA formally announced that capping most sediments, and dredging a single smaller hotspot near the US2 highway bridge, was the preferred response action.

PLANS FOR 1996 AND 1997 SITE ACTIVITIES

1996 ACTIVITIES

- U.S. EPA will resume dredging activities in the North Bay in May. Approximately 7,150 cubic yards of contaminated sediments remaining in the North Bay and downstream of the cofferdam near the US2 highway bridge will be removed and disposed of.
- Sediments will be separated from dredge water, and dredge water will be treated and discharged back into the river after confirming that it is free of PCBs.
- A demonstration project will be conducted to determine the feasibility of using inexpensive separation technologies (such as hydrocycloning) to separate sandy sediments from the sawdust and woodchips. Separation technologies could reduce the disposal costs.

Pending community input, the following actions are also planned for 1996:

- Removal of the temporary cover downstream from the marina.
- Removal and disposal of approximately 7,000 cubic yards of contaminated sediments downstream from the marina.

1997 ACTIVITIES

Pending the comments received during the public comment period, U.S. EPA is planning to complete dredging activities in the Manistique harbor during 1997. Approximately 97,000 cubic yards of contaminated sediments in the harbor would be dredged and disposed of. If the demonstration project conducted during 1996 is successful, separation technologies would be employed to minimize disposal costs.

PUBLIC INVOLVEMENT OPPORTUNITIES

EPA is providing a 30-day public comment period to give the local community an opportunity to comment on the proposed changes and have input in the final determination of the response action. The public comment period will begin on April 1 and end on April 30. EPA is planning to hold a series of meetings and availability sessions in mid-April 1996 to further discuss the proposed dredging activities with local residents. Exact dates, times, and locations of the meetings and availability sessions will be provided in subsequent announcements.

EPA's final determination will be made only after consideration of all public comments received during the public comment period.

HOW TO OBTAIN ADDITIONAL INFORMATION

If you would like more information about the proposed cleanup changes or about the Manistique site in general, please contact:

Cheryl Allen, Community Involvement Coordinator
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard (P-19J)
Chicago, Illinois 60604-3590

312-353-6196
Internet address:

ALLEN.CHERYL@EPAMAIL.EPA.GOV

James Hahnenberg, Remedial Project Manager
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

312-353-4213

Internet address:

HAHNENBERG.JAMES@EPAMAIL.EPA.GOV

or call EPA, toll free, at 1-800-621-8431
10:00 a.m. - 5:30 p.m., Eastern time, weekdays

You can also visit the site information repositories. The repositories contain a collection of site-related documents including technical reports, dredging-related information, fact sheets, press clippings, and general information about Superfund and other EPA programs. EPA has established repositories for the Manistique site at the following locations:

Manistique Public Library
100 North Cedar, Room 31
Manistique, Michigan

Schoolcraft County Court House, County Clerk's Office
300 Walnut Street
Manistique, Michigan



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