



# EPA Proposes Interim Cleanup Plan for PCB Contamination

## Ten-Mile Drain Site

St. Clair Shores, Michigan

July 2011

### Your opinions wanted

You are invited to attend an informal open house to ask questions about the site or a **public meeting** where there will be a more formal presentation about the site:

**Tuesday, July 26**  
Open House 2- 4 p.m.  
Public Meeting 7 p.m.  
Blossom Heath Inn  
St. Clair Shores

A **public comment period** runs from **July 6 to midnight Aug. 6**. Comments can be submitted:

- Orally or in writing at the **July 26** public meeting.
- Fill out and mail the enclosed comment sheet or submit it at the public meeting.
- Email EPA Community Involvement Coordinator Megan McSeveney at mcseveney.megan@epa.gov or fax Megan at 312-697-2756.
- Via the Internet at [www.epa.gov/region5/cleanup/tenmiledrain/pubcomment.html](http://www.epa.gov/region5/cleanup/tenmiledrain/pubcomment.html)

### Help us

EPA is continuing to follow-up on tips and leads from residents about where the PCB contamination may be coming from. If you have any information that might help EPA, contact EPA Community Involvement Coordinator Megan McSeveney at 800-621-8431, Ext. 61972, 9:30 a.m. to 5:30 p.m., weekdays. All information will be kept confidential. **You do not have to give us your name.**

The U.S. Environmental Protection Agency is proposing a short-term cleanup plan to periodically remove and properly dispose of the persistent PCB oil and contaminated sediment that accumulates in the Ten-Mile Drain. The interim plan also calls for installing absorbent material in the drain to discourage movement of the contamination and continuing to monitor the level of sediment (mud) and oil caught behind special barriers called “weirs.”

The weir maintenance activities described in this fact sheet are temporary measures that EPA officials believe will prevent the contamination from moving into nearby canals. Meanwhile, the Agency continues to look for the pollution source and consider long-term, permanent cleanup options.

### Comments welcome

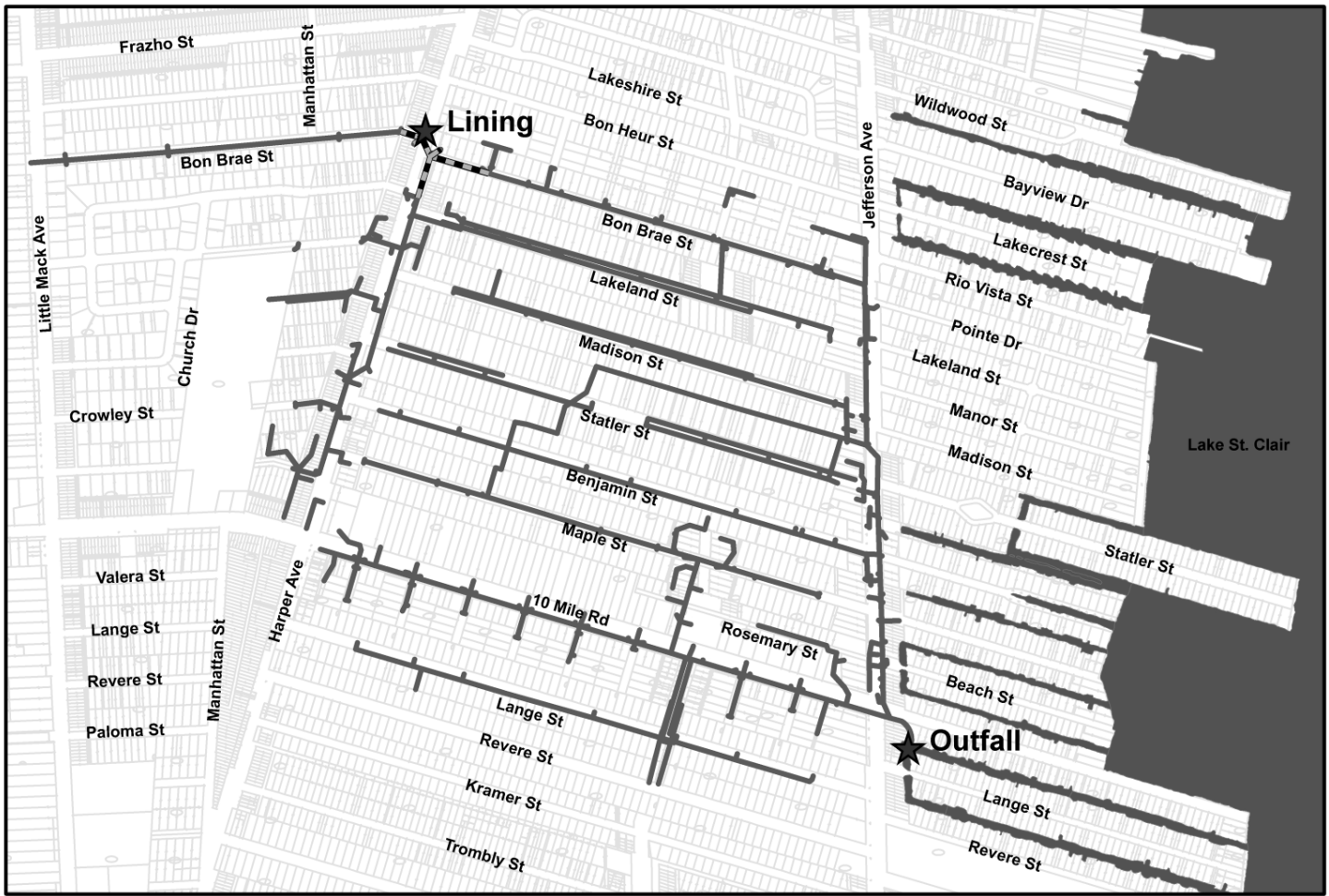
EPA in consultation with Michigan Department of Environmental Quality (MDEQ) will not select a final interim cleanup plan until after it reviews comments received from the public at a meeting and public comment period (*see left-hand box for ways you can participate in the decision-making process*). The Agency is issuing the proposed cleanup plan under the authority of the federal Superfund law.<sup>1</sup> EPA may modify the plan or select another option based on new information or public comments so your opinion is important. The purpose of this proposed plan fact sheet is to provide background information about the Ten-Mile Drain site, describe the interim cleanup options under consideration for the removal of PCB contamination, and identify EPA’s preferred option.

### About the Ten-Mile Drain

The site is located near the intersection of Bon Brae Street and Harper Avenue in St. Clair Shores, Macomb County, Michigan. It includes a portion of the Ten-Mile Drain storm sewer system, which consists of concrete sewer pipes and soil surrounding the pipes in a utility corridor 15 feet underground. The site covers several blocks where polychlorinated biphenyls or PCBs have been found in the storm sewer in significant quantities. The PCBs are moving into the storm sewer, which empties into two canals connected to Lake St Clair. The canals are private property and used by residents for recreational boating, swimming and fishing.

In 2001, elevated levels of PCBs were discovered in samples collected as part of a permit application for a proposed dredging project in the Lange and Revere street canals. The canals had not been dredged in years and at the time Lake St. Clair water levels were three feet lower than normal and the sediment build-up was making it difficult for boating. In addition, the canals receive stormwater and sediment from the Ten-Mile Drain storm sewer system. The discovery of PCBs in the canals prompted an emergency

<sup>1</sup>Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, known as the Superfund law) requires EPA to provide an opportunity for public input with a meeting and comment period. It also requires a newspaper ad announcing the proposed plan with a brief description. This fact sheet summarizes site-related reports. All official site documents can be found at the St. Clair Shores Public Library and at the EPA office in Chicago.



Map shows the layout of the underground Ten-Mile Drain stormwater system. PCB contamination is heaviest around the intersection of Bon Brae Street and Harper Avenue near the star symbol marking the lining.

response from EPA's removal program. The removal program handles short-term, time-critical cleanups where exposure to pollution is imminent and could threaten people's health. At the time, EPA responders assumed PCBs had been illegally dumped in Ten-Mile Drain, but the problem has proven to be persistent.

Since then, EPA and other agencies have been involved in several removal actions and associated investigations attempting to trace the source of the PCBs. Between 2002 and 2003, officials performed extensive sampling, dried the storm sewer then cleaned and removed sediment. In addition, the canals were sampled and dredged. In 2006, EPA installed 1,500 feet of pipe liner in the drain near the corner of Bon Brae Street and Harper Avenue. A large trap to collect contaminated sediment was installed in the drain at the outlet to the canals. In 2007, the city of St. Clair Shores started periodic sampling to monitor the conditions in and around the drain.

Unfortunately, in early 2010 PCB contamination reappeared in the drain, prompting another EPA emergency cleanup project. During this removal action, a series of 15 weirs were installed at manholes located along

Bon Brae Street and Harper Avenue. The 15 joined two weirs previously mounted in the drain system. Weirs are half-circle metal structures that act like small dams. The weirs serve to pinpoint what section of the drain the contamination is re-entering and to act as collection points slowing the migration of PCB oil and contaminated sediment through the Ten-Mile Drain system.

In September 2010, the Ten-Mile Drain site was added to the National Priorities List. The NPL is a roster of the nation's hazardous waste sites eligible for investigation and cleanup under EPA's Superfund program. Listing on the NPL means the pollution issues at Ten-Mile Drain have been transferred from EPA's short-term Superfund removal program to the long-term Superfund "remedial" program.

Based on monitoring results collected by the city of St. Clair Shores, this February EPA removed PCB oil from the Ten-Mile Drain using absorbent snares. Six of the 17 weir locations required cleanout using snares resulting in one 55-gallon drum containing the soiled absorbents. In addition, clean snares were attached to weighted chains and left in front of weirs at four locations along Bon Brae to catch any new incoming oil and support future sample



*Top photo shows a weir sitting in the Ten-Mile Drain. The weirs act like small dams collecting polluted oil and sediment before the contaminants can move into the canals.*

*Right photo shows absorbent snares being lifted from the Ten-Mile Drain. The snares help collect the contamination caught by the weirs.*

collection and maintenance. In April 2011, the city of St. Clair Shores inspected absorbent snares and placed clean snares behind the weirs where needed.

Recently, EPA concluded its source investigation field sampling activities in an effort to identify the source of PCBs within the Ten Mile Drain system. EPA's contractor collected samples from more than 90 soil boring locations within the underground utility corridors (sanitary sewer, water and storm drain). EPA's next steps include working with MDEQ and other stakeholders to review the final summary reports and plan the next phase of the investigation.

### **Site risks**

PCB contamination continues to infiltrate the Ten-Mile Drain from an unknown source. PCBs can pose potential health risks through incidental swallowing of contaminated soil or water; by direct skin contact; or through breathing PCB-contaminated air or particles.

### **About PCBs**

PCBs or polychlorinated biphenyls are a group of fabricated chemicals originally used in industrial processes and products such as coolants and lubricants.

In 1977 PCB production was banned in the United States, but PCB mixtures remain in old electrical equipment and other items. There is also substantial historical PCB contamination of landfills and rivers.

PCBs can pose potential health risks through eating contaminated food, soil or water, through direct contact, or through breathing PCB-contaminated air or particles. The EPA considers PCBs as possible cancer-causing chemicals.



Monitoring data collected behind the 17 weirs between May 2010 and February 2011 tracked sediment levels and tested for the presence of PCB oil. If either sediment or oil was present, it was sampled and analyzed for PCBs. Average PCB concentrations found in the sediment ranged from less than 10 parts PCBs per million parts sediment in manholes along Harper Avenue south of Lakeland Street, to an average of 14,000 parts per million in a manhole at the intersection of Bon Brae Street and Harper Avenue. A part per million or ppm is a tiny amount, equal to one second in 12 days. The sediment and oil caught in the weir under the Bon Brae/Harper manhole sometimes tested as high as 240,000 ppm. EPA considers the high concentration of PCB oil found in the drain to be the principal threat waste. Overall, less than two inches of sediment has accumulated behind the weirs since the April 2010 removal activities. Including the barrier located under the intersection, PCB-contaminated oil was consistently found at six weirs along Harper and Bon Brae.

The Michigan Department of Community Health (MDCH) recently issued a "do not eat" advisory for fish taken from the Lange and Revere canals. As a further precaution, MDCH recommends that no one eat carp or catfish caught from Lake St. Clair. Laboratory analysis of the samples strongly suggests that fish contain too many PCBs to safely eat. These advisories are listed in the *2011 Michigan Fish Advisory*.

### **Summary of interim cleanup options**

EPA considered two options for this interim action to manage the PCB contamination behind the weirs at the Ten-Mile Drain Superfund site. The options are summarized below. Full details are available in the

technical documents on file at the St. Clair Shores Public Library or on the Web. The options were evaluated using nine criteria set by federal law (*see right-hand box for explanation of criteria*).

**Option 1 – No Action:** EPA always includes a “no action” alternative as a basis for comparison with other cleanup options. Under no action, the PCB oil and contaminated sediment would remain within the storm sewer system and potentially discharge to the Lange and Revere canals. **Cost – \$0**

**Option 2 – Maintenance Activities; Monitor, Remove and Properly Dispose of PCB Oil and Contaminated Sediment behind Weirs (*this is EPA’s preferred cleanup option*):** This option includes maintenance activities that would handle the accumulation of PCB contamination behind the weirs within the Ten-Mile Drain. Maintenance activities would include monitoring, placement of absorbent snares to soak up oil and slow or stop the movement of contamination, and periodic removal and proper disposal of saturated snares and PCB-contaminated sediment.

Also under this option, monthly monitoring of sediment and oil behind the 17 weirs near the Bon Brae and Harper intersection and at the sediment trap located at the Ten-Mile Drain outlet would be conducted. Sediment would be collected using a device capable of collecting submerged samples. EPA would evaluate the effectiveness of its sediment collection method and adjust as needed. Based on the results from the monthly monitoring activities, sediment removal generally would be conducted behind any weir or the drain outlet if more than six inches were found with PCB concentrations greater than 50 ppm, but EPA could decide to remove sediment in other circumstances as needed.

If monthly monitoring reveals the presence of PCB oil, then absorbent snares would be placed behind the selected weir. The snares would be attached to a weighted chain to hold the snare near the bottom of the drain in front of the weir. During monthly sampling activities, snares would be inspected and saturated material replaced. After removal, PCB-contaminated sediment and snares would be placed in Michigan Department of Transportation approved 55-gallon drums. Drums containing contaminated sediment would be mixed with sawdust or other approved drying material to stabilize the sediment for disposal. All sediment and snare material removed during the monthly maintenance activities would be transported and disposed of at approved disposal facilities. **Cost –\$232,150 for one year**

## Evaluation of options

EPA compared the proposed interim cleanup options against the nine evaluation criteria and created the chart above. The objective of the weir maintenance activities is to prevent the movement of PCB contamination to the canals, while the Agency continues working through the Superfund process and selects a long-term cleanup plan

## Explanation of evaluation criteria

EPA compares each cleanup option or alternative with these nine criteria established by federal law:

- 1. Overall protection of human health and the environment** examines whether an option protects both human health and the environment. This criterion can be met by reducing or removing pollution or by reducing exposure to it.
- 2. Compliance with applicable or relevant and appropriate requirements (ARARs)** ensures options comply with federal and state laws.
- 3. Long-term effectiveness and permanence** evaluates how well an option will work over the long term, including how safely remaining contamination can be managed.
- 4. Reduction of toxicity, mobility or volume through treatment** determines how well the option reduces the toxicity, movement and amount of pollution.
- 5. Short-term effectiveness** compares how quickly an option can help the situation and how much risk exists while the option is under construction.
- 6. Implementability** evaluates how feasible the option is and whether materials and services are available in the area.
- 7. Cost** includes not only buildings, equipment, materials and labor but also the cost of maintaining the option for the life of the cleanup.
- 8. State acceptance** determines whether the state environmental agency accepts the option.
- 9. Community acceptance** considers the opinions of the public about the proposed cleanup plan. EPA evaluates this criterion after a public hearing and comment period.

for the site. Community acceptance will be evaluated after EPA receives public comments. More information about the options is provided in the technical documents on file at the St. Clair Shores Public Library and on the Web.

EPA rejected Option 1 No Action because that alternative leaves hazardous PCBs inside the Ten-Mile Drain where they can move into the canals and increase the likelihood of human exposure. Option 2 is the Agency’s recommended interim cleanup plan. Historically, elevated levels of PCB oil or contaminated sediment have been present in the Ten-Mile Drain, and PCBs continue to infiltrate into the drain from an unknown source. EPA proposes Option 2 to monitor the pollution entering the drain and periodically remove it.

Under Option 2, the periodic maintenance of the weirs installed within the drain will help control the potential movement of PCB contamination into the Lange and

Revere streets canals. Until a final long-term cleanup plan is selected, this cleanup alternative will significantly reduce the potential exposure of people and wildlife to contamination and is a cost-effective way to manage the PCB accumulation behind the weirs.

**Next steps**

Before a final decision is made on an interim cleanup plan, EPA will review comments received during the public comment period and at the public meeting. Based on new information or public comments, EPA, in consultation with MDEQ, may modify its recommended interim action plan. EPA encourages the public to review and comment on the cleanup options.

EPA will respond in writing to public comments in a document called a responsiveness summary. The responsiveness summary will be attached to another EPA document called a record of decision or ROD. The ROD details EPA’s final version of the interim cleanup plan. EPA will announce the selected interim cleanup plan with a local newspaper advertisement and place a copy of the ROD with the other technical documents at the St. Clair Shores Public Library and on the Ten-Mile website.

**Information repository**  
 You may review Ten-Mile Drain site documents at St. Clair Shores Public Library, 22500 Eleven Mile Road.

**On the Web**  
[www.epa.gov/region5/sites/tenmiledrain/](http://www.epa.gov/region5/sites/tenmiledrain/)  
 For more information about PCBs: [www.atsdr.cdc.gov/tfacts17.html](http://www.atsdr.cdc.gov/tfacts17.html).

**Contact EPA**  
 If you have questions, comments or need more information about the Ten-Mile Drain site you can contact:

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Evaluation Criteria	Option 1 No Action	Option 2 Monitoring, Sediment/Oil Removal*
Overall Protection of Human Health and the Environment	○	●
Compliance with ARARs **	○	●
Long-term Effectiveness and Permanence	○	○
Reduction of Toxicity, Mobility, or Volume Through Treatment ***	○	○
Short-Term Effectiveness	○	●
Implementability	○	●
Cost	\$0	\$232,150/yr.
State Acceptance	MDEQ accepts Option 2	
Community Acceptance	Evaluated after public comment period	

\* EPA’s Recommended Interim Cleanup Option

\*\* The proposed plan complies with state and federal ARARs that are specific to the limited scope of the interim action, including PCB regulations under the federal Toxic Substances Control Act.

\*\*\* Treatment of the PCB oil and sediment is not practical in this interim action because of the immediate nature of the action and the small quantity of PCBs that will be removed from the drain. A more permanent solution will be addressed in the long-term final cleanup plan. PCB contamination will be removed and properly disposed of in a certified landfill.

- Meets criterion
- Partially meets criterion
- Does not meet criterion

# EPA Proposes Interim Cleanup Plan for PCB Contamination


Ten-Mile Drain Site  
St. Clair Shores, Michigan  
(details inside)

*This fact sheet is printed on paper made of recycled fibers.*

**TEN-MILE DRAIN SITE:  
EPA Proposes Interim Cleanup Plan for PCB Contamination**

RETURN SERVICE REQUESTED

FIRST CLASS

  
United States  
Environmental Protection  
Agency  
Region 5  
Superfund Division (SI-7J)  
77 W. Jackson Blvd.  
Chicago, IL 60604-3590



# TEN-MILE DRAIN PUBLIC COMMENT SHEET



Fold on Dashed Lines, Tape, Stamp, and Mail

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_

Place Stamp Here
------------------------

**Megan McSeveney**  
Community Involvement Coordinator  
EPA Region 5 (SI-7J)  
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Chicago, IL 60604-3590