



Signed Agreement Triggers Cleanup Plan and Work

Tittabawassee River, Saginaw River & Bay Site

Midland/Saginaw/Bay City Region, Michigan

July 2010

For more information

You can view documents related to the Tittabawassee River, Saginaw River & Bay site in information repositories set up by EPA and DNRE. The repositories are located in the Grace A. Dow Memorial Library, 1710 W. Saint Andrews St., Midland; the Hoyt Main Library, 505 Janes Ave., Saginaw; and the Alice and Jack Wirt Public Library, 500 Center Ave., Bay City.

Information office

EPA has opened a community information office in the Saginaw County Courthouse, 111 S. Michigan Ave., Saginaw. Or call 989-790-5215.

On the Web

EPA dioxin investigation:
<http://www.epa.gov/region5/sites/dowchemical>

Michigan dioxin information:
<http://www.michigan.gov/deqdioxin>

Sign up for the listserv

If you would like to be e-mailed site updates, send a blank message to: dow_dioxin-subscribe@lists.epa.gov

Contacts

These EPA community involvement coordinators can answer questions:

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deblasio.don@epa.gov

Region 5 toll free:
800-621-8431, 9:30 a.m. – 5:30 p.m., weekdays

At DNRE contact:

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In January 2010, U.S. Environmental Protection Agency, the Michigan Department of Natural Resources and Environment (formerly the Department of Environmental Quality) and the Dow Chemical Co. signed a settlement agreement regarding the Tittabawassee River, Saginaw River and Bay Superfund site.

In addition to initiating cleanup plans and work, the agreement increased activities to engage the community and involve residents in education about the site. This enhanced community involvement includes formation of the Saginaw-Tittabawassee Rivers Contamination Community Advisory Group, a draft community involvement plan and funding for a technical expert under a technical assistance plan.

The Settlement Agreement

The January settlement set out requirements for Dow to perform investigations and develop and design cleanup options selected by EPA, in consultation with Michigan DNRE, for the Tittabawassee River, Saginaw River and Bay site. The overarching goal for this project is to achieve protective, comprehensive cleanup of the Tittabawassee and Saginaw Rivers and Saginaw Bay. Critical activities for the site fall into three categories:

- Continuing to address high-use properties along the rivers through early actions
- Continuing to address movement of highly contaminated soil and sediment through early actions
- Developing comprehensive cleanup options in an upstream-to-downstream fashion for the Tittabawassee River, Saginaw River and Saginaw Bay over the longer term

Work under the agreement is ongoing. Updates on the work and the projected completion dates for these critical activities at the site are outlined below. These key tasks are being conducted concurrently so that significant work can be accomplished on an accelerated schedule while recognizing the size and complexity of the site.

Addressing High-Use Properties

Potential exposure of people to highly contaminated, heavily used properties along the floodplains is a concern. Exposures on high-use properties are being evaluated and will be addressed, as needed, on an accelerated schedule. Key milestones include:

- Spring 2010 through summer 2011 — in phases: assess high-use properties for potential exposure risks (This work is under way.)
- Fall 2010 through fall 2011 — in phases: seek public comment on exposure controls identified for high-use properties
- Winter 2010/2011 through winter 2011/2012 — in phases: selection by EPA of exposure control approaches
- Fall 2011 through fall 2012 — in phases: implement designed and selected exposure controls

Addressing Movement of Highly Contaminated Soil and Sediment

Potential movement of highly contaminated sediment and river bank soil to other areas of the site is also a concern. Highly contaminated banks and sediment are being assessed and will be addressed, as needed, on an accelerated schedule. Key milestones include:

- Spring 2010 through spring 2011 — in phases: assess highly contaminated banks and sediment for potential movement (This work is under way.)
- Late summer 2010: accelerate activities at a contaminated sediment deposit at Reach J/K, about one mile downstream of the Dow plant, and conduct a pilot capping study (Planning is under way and this work will be ahead of EPA's original schedule.)

- Late summer 2010: accelerate activities at a contaminated bank at Reach O, about three miles downstream of the Dow plant, and stabilize the eroding bank (Planning is under way and this work will be ahead of EPA's original schedule.)
- Spring 2011 through winter 2011 — in phases: seek public comment on cleanup options to address contaminated bank and sediment movement
- Summer 2011 through spring 2012 — in phases: selection by EPA of cleanup approaches
- Fall 2011 through fall 2012 — in phases: implement designed and selected cleanups

man health and the environment is achieved and guiding the development of cleanup options as cleanup moves upstream to downstream. Key milestones include:

- Spring 2010 through winter 2010: assess the first river segment (This work is under way.)
- Spring 2011: seek public comment on cleanup options for the first river segment
- Summer 2011: selection by EPA of cleanup approach for the first river segment
- Fall 2012: selected cleanup for the first river segment designed and ready to implement.
- Summer of 2011 but no later than summer of 2012: assess second river segment
- Winter 2011/2012 but no later than winter 2012/2013: seek public comment on cleanup options for the second river segment
- Spring 2012 but no later than spring 2013: selection by EPA of the cleanup approach for the second river segment
- Fall 2013 but no later than fall 2014: implement designed and selected cleanups for the second river segment

The lower Saginaw River and Saginaw Bay will require additional studies. However, because this part of the site is expected to be affected by cleanup upstream, comprehensive clean up work in the lower Saginaw River and Bay will be initiated

Comprehensive Cleanup Options

Longer term, comprehensive cleanup of the site will be achieved best by applying an approach that requires making cleanup decisions, implementing cleanups and monitoring results. The Tittabawassee and upper Saginaw River (about 30 miles overall) have been divided into eight segments ranging from about 3-5 miles each. EPA expects work to be staged to allow continuous construction upstream to downstream, segment-by-segment, ensuring that all components of each segment (e.g., floodplains, banks and in-channel sediment) are addressed. Monitoring the results will be critical for evaluating the effectiveness of remedies, ensuring that protection of hu-

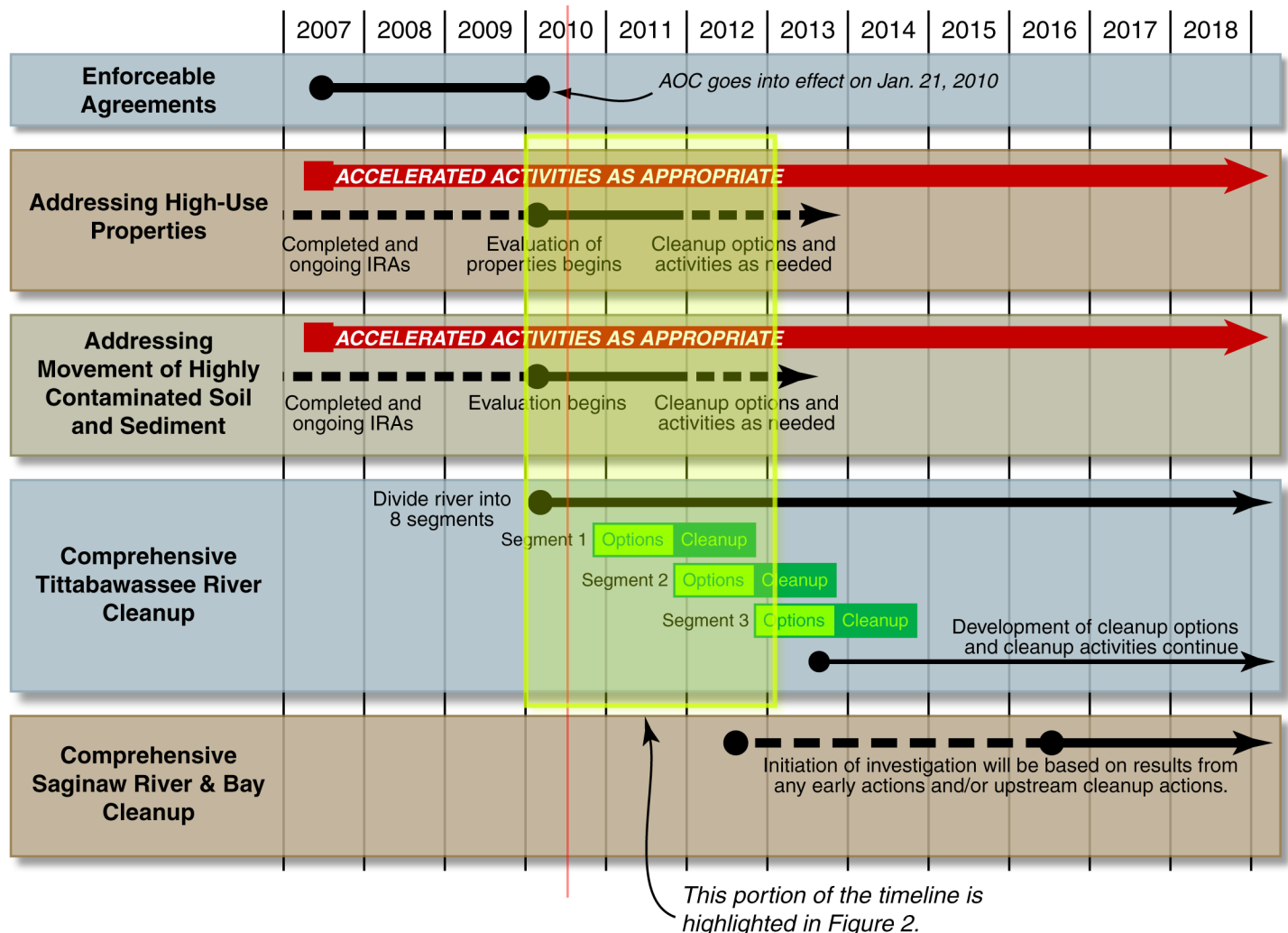


Figure 1. This timeline shows long-term plans for cleanup on the rivers and bay, but goes only as far as 2018. Current activities and plans are highlighted in the banded area near the center of the chart. Those activities are shown in more detail in the figure on the next page.

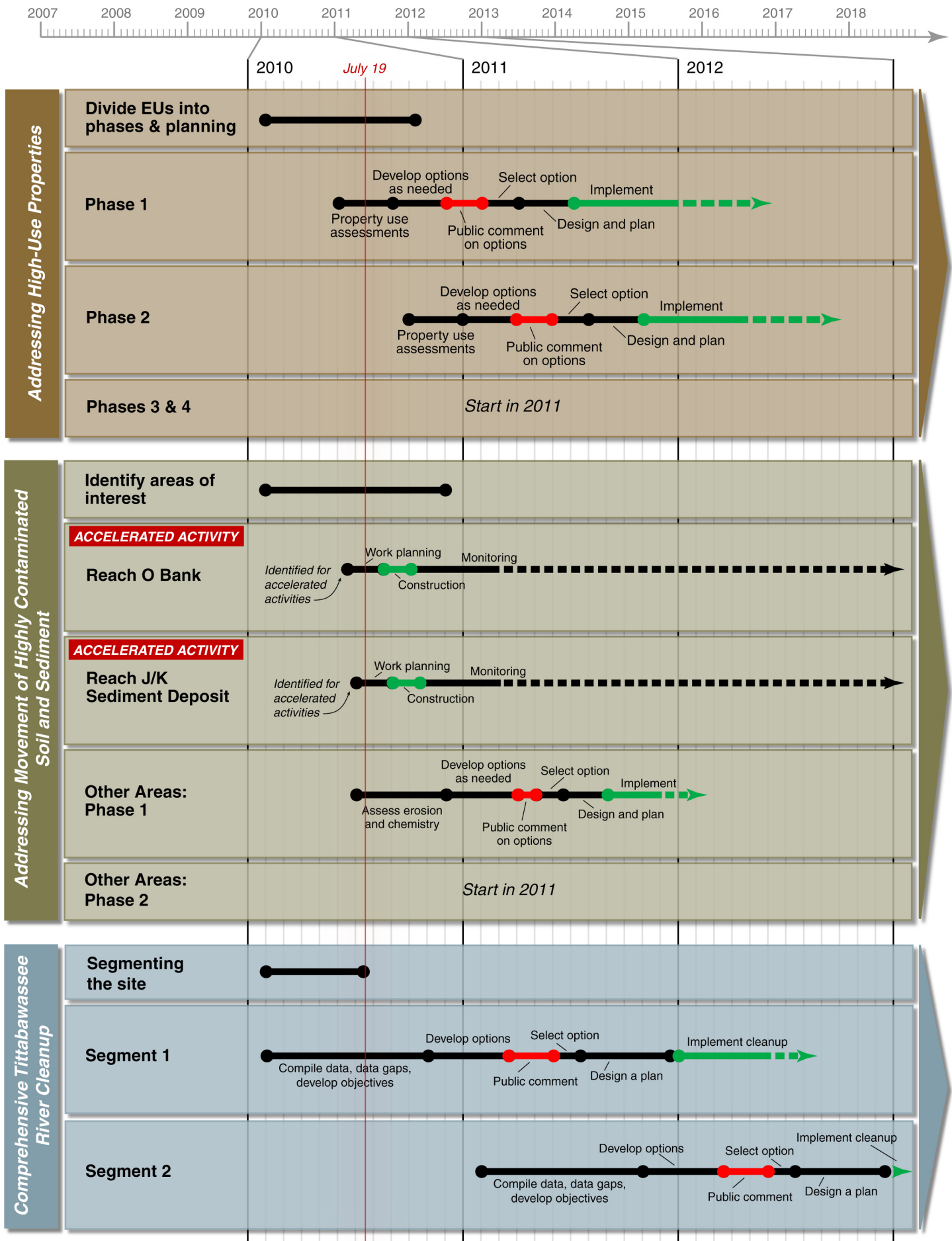


Figure 2. This timeline shows short-term cleanup plans and related activities in more detail from 2010 through 2012. Note that the public will have several opportunities to be involved. Public comments on proposed options will be considered by EPA and DNRE before deciding on exposure controls, stabilization activities and final cleanup plans.

after substantial upstream cleanup has occurred. Early work to address high use properties and contamination movement is ongoing as noted above. Site-wide monitoring will begin in 2010, continue during all phases of work and will be used to assess conditions throughout the site as work progresses.

Community Involvement

Community Involvement Plan: Since the settlement agreement was signed in January 2010, EPA and Michigan DNRE have been laying the groundwork for effective communication in the years to come. As part of those communication efforts, in June 2009 EPA released an “interim community involvement plan” detailing a number of activities the agency would take to keep communities informed and engaged at the site. In June 2010, EPA shared an early draft of a more complete CIP with the community advisory group for feedback. A draft final CIP will be shared with the broader community for comments and suggestions before it is completed. However, even though the CIP will be released as “final,” it is a document that will be modified continuously as necessary to meet community needs and concerns.

Information Office: In June 2009, EPA opened a temporary office in the Saginaw County Courthouse. A permanent space will be arranged before the end of the year. Once this new space is ready, it will provide comfortable meeting space and room for reviewing site documents as well as a place you can drop in for information.

The office staff—a remedial project manager and a community involvement assistant—have been reaching out to the community through participation in several area activities. A few highlights:

- Saginaw Medical Society Health Fair
- Timberdoodle Festival
- Bay City State Recreation Area Bald Eagle School Program
- Michigan Department of Community Health Fish Smart Eat Smart Program

EPA staff will be participating in other appropriate community events to keep residents informed and aware of cleanup activities on the rivers and bay.

Community Advisory Group: EPA and Michigan DNRE have worked closely with the community advisory group that formed in November 2009. The CAG has been meeting on the third Monday of each month. CAG meetings are open to the public and announced through newspaper ads and the listserv about a week in advance.

One highlight was a 5-hour pontoon-boat tour of parts of the Tittabawassee and upper Saginaw rivers to provide CAG members a reference for ongoing discussions.

Monthly topics have included updates on the settlement agreement, ongoing work, and presentations about site-related topics. The presentations can be viewed on EPA’s website.

Technical Assistance Plan: The settlement agreement required Dow to provide technical assistance to the community through a “technical assistance plan.” This TAP will start off with \$50,000, with more funding available as needed. In June, Dow published an ad seeking applications for the TAP. Applications were due July 5. EPA and Dow will review the applications to seek the group that best represents all the different viewpoints in the community.

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TITTABAWASSEE RIVER, SAGINAW RIVER & BAY SITE: Signed Agreement Triggers Cleanup Plan and Work

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