



Tittabawassee River Floodplain Soil Cleanup Frequently Asked Questions

The U.S. Environmental Protection Agency has answers to questions you may have about the Tittabawassee River floodplain soil cleanup. These FAQs will be updated as needed.

This version was created August 2014.

Cleanup Decisions

1. What properties will need a cleanup?

Not every floodplain property will need a cleanup, and no specific areas have been identified at this time. We are evaluating properties, or portions of properties, segment-by-segment from upstream to downstream, focusing on frequently flooded areas – the eight-year floodplain. EPA and the Michigan Department of Environmental Quality have developed proposed cleanup numbers specific to the conditions at this site that will help us determine where a cleanup is needed. If we find dioxin levels lower than what we call the “site-specific cleanup number,” no further action is needed. If dioxin levels are higher than the appropriate cleanup number, EPA will direct Dow to contact the property owner to begin discussions about a cleanup.

2. What are the proposed site-specific cleanup numbers?

Because the floodplain is used in different ways, EPA and MDEQ have developed two site-specific dioxin cleanup numbers for floodplain properties:

- Maintained Residential Areas – 250 parts of dioxin in a trillion parts of soil, a measure known as “parts per trillion,” or “ppt.” This applies to portions of yards that are in the floodplain and clearly maintained for typical backyard uses, such as lawns, play areas or gardens.
- Other Land Use Areas – 2,000 ppt. This applies to floodplain portions of farms, parks, commercial properties and natural areas, including unmaintained parts of properties and the Shiawassee National Wildlife Refuge.

3. How were the cleanup numbers developed?

EPA’s cleanup numbers and proposed cleanup actions are designed to protect everyone who lives, works or plays in the floodplain. EPA and MDEQ considered factors such as local climate, where people spend time and how they use the floodplain, the amount of exposure people get from house dust vs. soil, and studies on the amount of dioxin that is taken up into the body. For more information, visit

<http://www.epa.gov/region5/cleanup/dowchemical/floodplain.html>, and link to the document “Cleanup Number Development Fact Sheet.”

4. Will you need to take samples on my property?

We don’t expect to sample every property because we already have approximately 10,000 samples from the floodplain. We may take samples to refine cleanup boundaries or support the cleanup decision. We may also sample your property if it has never been tested.



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5. What if I don't want cleanup on my property or a particular part of my property?

We do not intend to clean up a property if the owner objects. If we can meet the cleanup number and avoid working in a particular part of your property, we will work with you to do that. Owners will have input on the plans. Through that input we hope to deal with any reservations. EPA will work very closely with you to reconcile your concerns. We hope you will agree to work with us on the cleanup of your property.

How the Cleanup Will Be Conducted

6. How will properties be cleaned up?

For Maintained Residential Areas, workers will dig up and remove contaminated soil, replace it with clean soil, and restore lawns and plants. For other areas, workers will either dig up and dispose of soil or cover it with clean material. In either case, they will replant the area. The project team will work with each property owner on the right approach.

7. Who will conduct the work?

Dow is expected to do all the work under EPA oversight.

8. Who will pay for the cleanup and will there be any expense to the property owners?

Dow is expected to pay for the cleanups. There will be no expense to the property owners.

9. Can I stay in my house or use my yard during the work, and will it disrupt any services (mail, water, sewer, electric)?

Yes, you can stay in your house. We don't expect any services to be disrupted. However, you may not be able to use some parts of your yard during the cleanup. The project team will work with you on the specific details.

10. How will the cleanup affect my existing landscaping and trees?

We will probably need to remove most plants and trees in the area of the cleanup and in access routes. We will, however, restore your landscaping when the cleanup is complete. The project team will work with you to see if specific trees or ornamental features can be left in place.

11. If a cover is placed on my property, how long is it expected to last? How will you know if it's working?

A clean cover is designed to last a long time. EPA always requires monitoring and maintenance of covers to ensure long-term reliability.

12. Where will the excavated soil go?

Excavated soil will be disposed of at a local landfill or an approved area at Dow's Midland plant.

13. Will the floodplain cleanup include banks?

Not necessarily. Some banks may be cleaned up during the yard cleanup. However, we generally expect to clean up the banks only if they have high levels of dioxins that could erode back into the river.

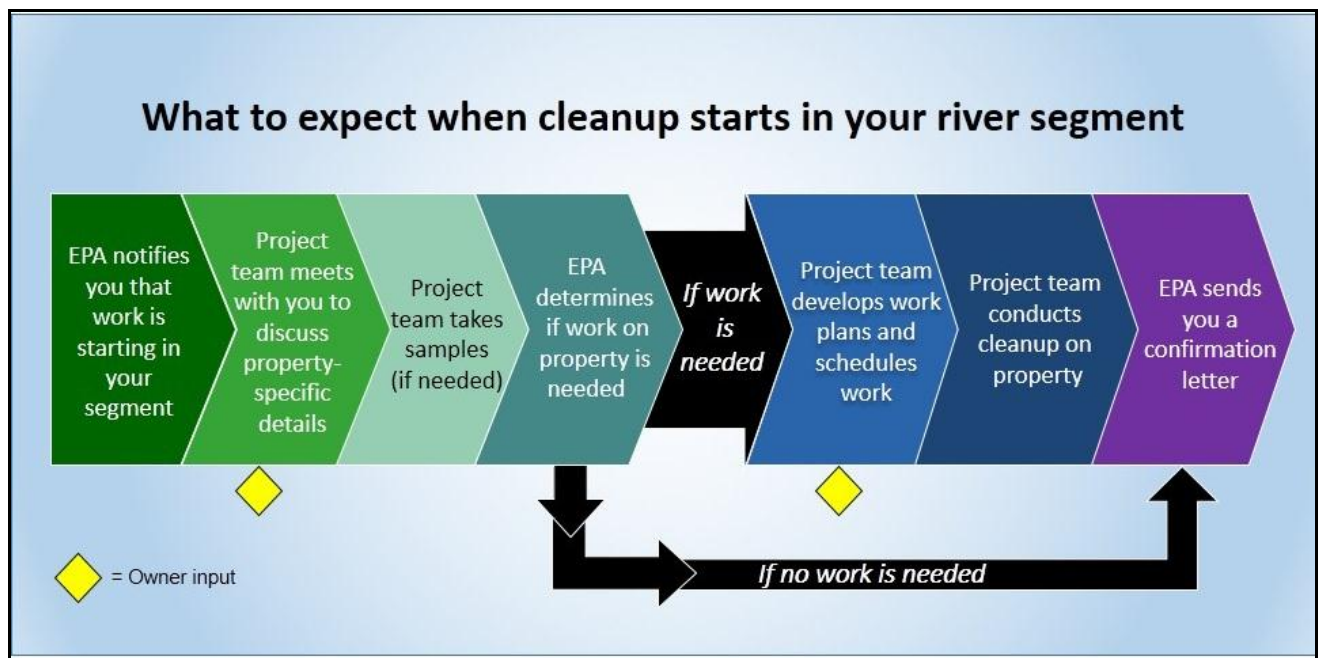
Communication

14. If I have questions, who can I contact?

EPA's contact is Diane Russell in our Saginaw office. You can contact Diane at 989-401-5507, or russell.diane@epa.gov. Dow's contact for the project is the "Dow Tittabawassee River and Floodplain Project Information Line," 989-638-6100.

15. How will owners be notified about cleanup plans for their property?

EPA is working in phases from upstream to downstream on a segment-by-segment basis. When work begins in a segment of the river, the project team will evaluate properties within that segment that may require cleanup. At that time, we will get in touch with you about your property. If we determine your property needs a cleanup, we will direct Dow to contact you about the next steps for your property. Once the cleanup is done – or if no cleanup is needed – we will give you a confirmation letter.



Timing of Work

16. When will cleanup start and how long will it take?

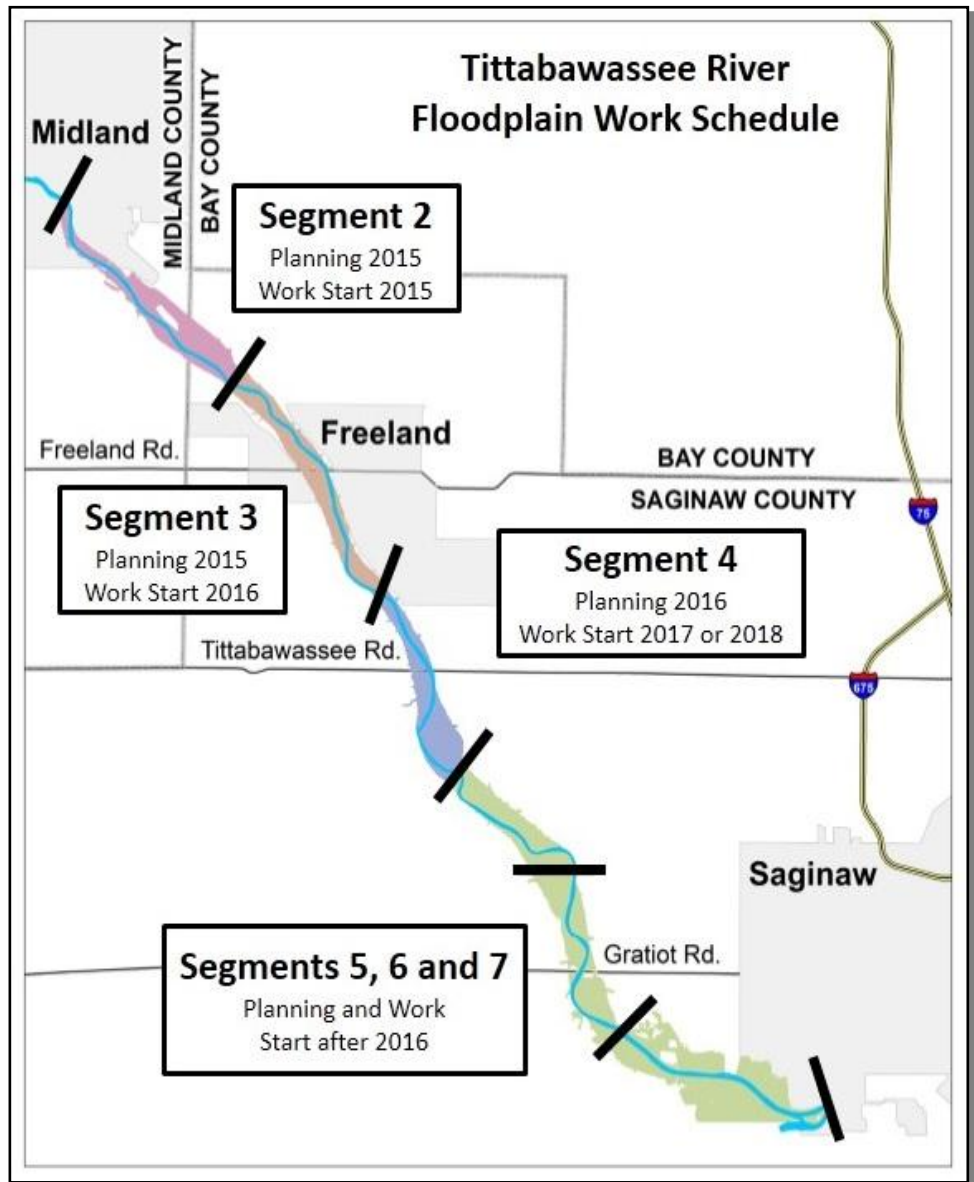
We expect cleanups in the Segment 2 floodplain to start in 2015. EPA divided the floodplain into six segments ranging from three to four miles each (Segments 2 - 7). We will evaluate properties and do cleanups upstream to downstream, segment-by-segment. That means upstream properties will be cleaned up first, followed by those further downstream. We expect the cleanup in each segment to take one to two years.

17. When will cleanup on my property start and how long will it take?

We don't have precise dates yet. Timing has a lot to do with location (*see #16 above*). How long it takes depends on the size of your property, the cleanup method and its complexity, and weather. Generally, though, most properties should only take a week or two.

18. Will the river and the floodplain be cleaned up at the same time?

Yes. While some work in the river has already been done, our goal is to clean up the river and floodplain together, segment-by-segment, starting in 2015.





Real Estate/Property Use Questions

19. Are there restrictions on how I can use my property before or after the cleanup happens?

Land use within the floodplain is controlled under existing laws and regulations that restrict construction, development and filling the floodplain. These are unrelated to the cleanup and will continue. However, the project team may ask property owners for voluntary long-term agreements on the future use of particular floodplain areas. For example, long-term agreements could keep land undeveloped and natural through conservation easements or other agreements.

20. When the cleanup is finished, will I be given a letter or certificate stating my property is complete?

Yes. Once the cleanup is done – or if no cleanup is needed – EPA will give you a confirmation letter.

21. Will this cleanup work affect my property value?

Many complex factors may affect property values. EPA does not expect that the cleanups will have negative effects on property values.

22. When the cleanup is finished, will I be required to disclose anything to potential buyers about the cleanup?

That depends on the specific facts and circumstances that apply to your property and its cleanup, as well as laws in effect at the time of sale. You should discuss this with your realtor and attorney when you decide to sell the property.

Flooding

23. If I have a cleanup and it floods, will my property need another cleanup?

That is not expected. Upstream river cleanups, combined with current management practices that control releases from Dow's facility, will help prevent recontamination. We are monitoring places with previous cleanups (for example, West Michigan Park and Riverside Boulevard) to assess the potential for recontamination. So far, it has not been a concern.

24. Will the cleanup include flood control?

No. Modifying floodways or changing flood patterns is restricted under existing laws and regulations.



Floodplain Use Questions

The Michigan Department of Community Health and MDEQ have additional information related to the questions in this section. You can find more information at http://www.michigan.gov/mdch/0,1607,7-132-2945_5105_29181-113198--00.html or http://www.michigan.gov/mdch/0,4612,7-132-54783_54784_54785-200030--00.html or by calling MDCH at 517-335-8350.

25. Is it safe for people to be in the floodplain for routine yard activities?

Until we clean up your property or determine you don't need a cleanup, there are steps you can take. MDCH and MDEQ have guidelines to help you reduce contact with floodplain soil – having play areas and gardens away from areas that flood frequently, washing up after contact with floodplain soil and trying not to track floodplain soil into the house.

26. Is it safe to eat fruits and vegetables grown in the floodplain?

Yes. Studies show fruits and vegetables do not take up dioxin from the soil. But MDCH and MDEQ recommend you wash fruits and vegetables to remove any soil or dust, and peel root vegetables such as carrots, potatoes and beets.

27. Is it safe to raise livestock in the floodplain?

MDCH, MDEQ, and the Michigan Department of Agriculture and Rural Development recommend that you not consume products such as milk, meat and eggs from livestock raised in the Tittabawassee River floodplain. They don't expect that to change after the cleanup.

28. Once cleanup is done, will the fish and wild game advisories still be in effect?

Yes. MDCH is responsible for issuing the advisories. EPA and MDEQ will share information with MDCH to see if the advisories can be removed or reduced over time.

29. Is the floodplain safe for my pets?

MDCH and MDEQ recommend you give your pets a play area that doesn't flood frequently and try to keep them from tracking contaminated soil into the house.

30. Will anything be done on my property to limit exposure risks before the cleanup is complete?

Since 2005, Dow, under EPA and MDEQ oversight, has taken steps to limit human exposure to dioxins in Tittabawassee River floodplain soil. Most recently, in 2011, EPA directed Dow to act in areas that frequently flood, contain bare soil and are actively used by homeowners. These are interim, short-term steps taken until long-term solutions are implemented. If you have questions, contact EPA at 989-401-5507.

For More Information

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