

Managing Soil and Sediment Deposits in Tittabawassee and Saginaw River Flood Zones Downstream of Midland

RECOMMENDATIONS

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the Michigan Department of Health and Human Services (MDHHS) have reviewed soil and sediment sample data collected in follow-up to the recent Midland and Saginaw area flooding event. Based on this information and other lines of evidence, no additional soil clean-up or management requirements are recommended beyond what is already in place.

The first round of dioxin test results (received mid-June) from the Tittabawassee River floodplain downstream of Midland do not show levels of dioxins and furans that are above the 250 ppt Toxic Equivalency (TEQ) residential clean-up level at “trend monitoring stations” along the Tittabawassee River. More trend monitoring station samples have been collected, are being analyzed, and will be reviewed by EGLE and MDHHS. EGLE has been monitoring these trend monitoring stations for dioxins after seasonal floods since 2011. Samples were also taken for non-dioxin contaminants and these results did not indicate a need to change current practices.

SOIL AND SEDIMENT CLEANUP AND DISPOSAL RECOMMENDATIONS

Even though levels of dioxin are not expected to exceed 250 ppt from flood deposited sediments, it is always recommended that individuals reduce their exposure to dioxins by taking the steps as outlined in the brochure entitled *Dioxin, Furan, and your Health*, which can be found at [Michigan.gov/documents/mdch/Dioxin_Exposure_and_Health_Final_420292_7.pdf](https://www.michigan.gov/documents/mdch/Dioxin_Exposure_and_Health_Final_420292_7.pdf).

No special precautions are needed related to dioxins during cleanup of your home interior as a result of flooding. However, it is **always** recommended to take the following steps to reduce exposure to environmental contaminants after direct contact with any soil:

- Wash hands well, with soap and water after contact with any soil.
- Avoid touching the face, mouth, and eyes before washing hands.
- Wash soil and mud from clothes and shoes that came into contact with the flood related soils.
- Avoid spreading or tracking soils inside your home to clean areas.

The greatest concern after cleaning in response to a flood event is mold and bacteria growth. Please follow the CDC guidelines for cleaning following a flood, found on-line at www.cdc.gov/healthywater/emergency/cleaning-sanitizing/household-cleaning-sanitizing.html.

More information on mold and general cleanup guidance can be found at [Michigan.gov/mold](https://www.michigan.gov/mold).

Soil and sediment that got into the house or other structures can be sent to your local landfill. If desired, sediment deposited outside of structures can also be landfilled to help reduce potential exposures into the future. Because the levels of dioxin are expected to be below the 250 ppt level, there are no specific management requirements. It is also important to note that based on thousands of samples, levels of dioxin above the residential cleanup level are very rarely found outside of the 8-year flood plain. Properties that only flooded in 1986, 2017, and 2020 are not expected to have dioxin contamination above clean-up levels from seasonal river flooding.

Stay Safe While Cleaning!

- Never mix bleach with ammonia or any other cleaner.
- Wear rubber or other non-porous boots, gloves, and eye protection.
- Try not to breathe in product fumes. If using products indoors, open windows and doors to allow fresh air to enter.

Household Hazardous Waste Recommendations

Household hazardous wastes (HHW), such as fuels, oils, paints, solvents, etc., are currently being managed at the local level. Residents should contact local county and city authorities, as appropriate, to determine how handling and disposal of HHW is being conducted. The following online resources can help you find your local contacts:

- [Michigan.gov/EGLEHHW](https://www.michigan.gov/EGLEHHW)
- [Michigan.gov/RecyclingDirectory](https://www.michigan.gov/RecyclingDirectory)
- [Michigan.gov/CleanSweep](https://www.michigan.gov/CleanSweep)

In the event that HHW cannot be managed at the local level, please contact Ms. Trisha Confer with EGLE's Bay City District office, at 989-225-7968, for guidance on HHW management and disposal.

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