

Water Management Update

East Palestine Train Derailment Emergency Response

East Palestine, Ohio

March 2024

For Additional Information

If you have questions that have not been answered in the FAQ on pages 3 & 4, please contact:

EPA Information Line 330-775-6517

EPA Welcome Center 25 North Market Street East Palestine R5_eastpalestine@epa.gov (Hours by appointment only)

Learn More

To learn more about the cleanup work being done, please visit:

EPA Information Repository

Memorial Public Library 309 North Market Street East Palestine (Hours: Mon-Th. 9 a.m. - 8 p.m. & Fri-Sat. 9 a.m. - 5 p.m.)

EPA East Palestine Website

Use a smartphone or tablet's camera scan function to follow this QR code or visit the link below it:



https://www.epa.gov/eastpalestine-oh-train-derailment



Photo 1 shows the current bypass system which carries water to Sulphur Run.

As the cleanup at the derailment site continues to progress, water management in the area will undergo some changes. In the next few months, the natural flow of creek water to Sulphur Run will be restored, rainwater and snow melt will no longer need to be collected at the site, and additional cleanup efforts will begin in Leslie and Sulphur Runs. Moving forward, these changes are based on extensive sampling and monitoring data, including confirmatory on-site sampling which acts as a "double-check" to ensure all contamination from the derailment has been removed.

The changes to water management are critical steps to reduce the footprint of the response area, and necessary for completion of the remedial and investigation activities. Until the temporary storage tanks are no longer needed for rainwater and snow melt collection, the double-check work in those areas cannot be completed.

Returning Natural Water Flow to Sulphur Run

The project is approaching an important milestone toward returning the natural flow of water back into Sulphur Run. To prepare for rainwater and water from the upstream wetlands to flow naturally on-site, the north and south ditches alongside the tracks will be evaluated in areas, starting at the western-most end of the derailment site. Robust testing under EPA and Ohio EPA guidance, oversight, and approval will ensure the soils around and within the ditches have no remaining contamination.

Once testing in one area of the ditch shows naturally flowing water is safe to enter Sulphur Run, flow will be restored for that area. The testing process will be repeated area-by-area until the full natural flow of water is restored. Surface water testing in Sulphur and Leslie Runs will continue through this process. None of this water flow will come from currently contained site water. Rainwater and snowmelt will continue to be collected on-site until water is fully restored to the ditches. If any areas need additional work, they will not be part of the process to restore water flow. Additionally, it is important to note that there likely will not be a visible water level difference once water flow is restored. Water in the North Ditch will increase creek flow by approximately 1% and the South Ditch will increase creek flow by approximately 3%. This process will begin to occur in the next two-to-four weeks, with the overall process extending into the summer. EPA's website (*see first page*) will be updated with operational information accordingly.

Wastewater Management and Disposal

Throughout the response, rainwater and snowmelt that have touched potentially contaminated soil areas were collected and put into storage tanks. Initially, this water was then shipped to off-site regulated disposal facilities as hazardous waste. Following construction of the on-site wastewater treatment plant most water collected has been sent through the treatment system before being shipped off-site as non-hazardous waste.

Now that contaminated soils are removed and much of the doublecheck work is complete, untreated collected water can be disposed of as non-hazardous if it is confirmed to not contain vinyl chloride and other hazardous materials. This represents great progress and is a significant step towards final site restoration, reflecting how successful the removal of contamination has been. Until final preparations for this are in place, wastewater will continue to be treated before off-site disposal. During heavy rain events, some wastewater may be shipped off-site as hazardous (without being treated) to maintain storage capacity. Any trucks carrying hazardous wastewater are properly labeled and sent to regulated facilities for disposal.

Status of Additional Cleanup in Sulphur and Leslie Runs

Ecological conditions in the streams are improving, and since completing soil excavation work in October 2023, Norfolk Southern has comprehensively investigated Sulphur and Leslie Runs for any remaining derailment impacts. While the results of those assessments indicate that surface water and air in and around the waterways do not show derailment-related contamination, areas of oil sheening were identified in both streams. To address these areas, Norfolk Southern has submitted a sediment mitigation workplan to EPA for approval as the final step in returning the waterways to their prederailment conditions. When the weather warms up in the spring, Norfolk Southern will start the work to target and remove oil discharged during the derailment, including additional stream/sediment washing and physical removal of sediments, as appropriate. This cleanup will be overseen by EPA and Ohio EPA.



Photo 2 shows a view of the North Ditch bypass.



Photo 3 shows a treatment area within the on-site wastewater treatment plant.



Photo 4 shows trucks being loaded with nonhazardous water for off-site disposal.

Frequently Asked Questions

Why collect the rainwater and snowmelt around the derailment site?

Until excavation work and confirmatory sampling are completed, any wastewater collected from the derailment site is considered a "listed hazardous waste" because it *may* have come into contact with vinyl chloride or other hazardous contaminants from the derailment. Even though the soil contamination has been removed, our double-check work is ongoing to verify that all hazards have been removed.

Why treat the collected water?

Water collected at the site has the potential to have come into contact with vinyl chloride and other contaminants from the derailment. After the collected wastewater is treated it is then tested, and if it is not hazardous, can be disposed of as non-hazardous waste.

What has changed?

For the past several months as the collected wastewater has gone through the system, sample results have shown that the wastewater meets the standards set for vinyl chloride and other derailment-caused contaminants without treatment, meaning it can be disposed of as non-hazardous waste.

Testing of the collected wastewater will continue, and all water will have to meet the same standards (drinking water standards for vinyl chloride) before it is disposed of as non-hazardous waste. All collected water will still be properly disposed of at an approved off-site treatment facility.

Will returning the natural flow of water to Sulphur Run disturb areas with sheen?

Conditions in the streams are much improved because of previous cleanup work conducted in 2023. Although oily sheens remain, they are settled in the sediment and do not impact surface water unless disturbed. The increased water flow to Sulphur Run will be minimal and is not expected to disturb sheen. Also, natural flow conditions will eliminate sudden increases in creek flow due to the pump-around system.

What is the status of the cleanup work in the streams?

There is still more work to be done in Leslie and Sulphur Runs. EPA and Ohio EPA are reviewing the Norfolk Southern sediment mitigation workplan. More cleaning will likely start before April and is expected to continue through July.

Will there be an increase in turbidity (cloudiness or muddiness) or silt in the streams?

The increased flow from this work is expected to be minimal and should not impact turbidity or silt.

When will water no longer need to be collected to be returned to Sulphur Run?

We anticipate in the next two-to-four weeks, this work will start in sections of the derailment site. Soil analysis during the double-check phase is needed to remove the hazardous waste listing from the collected wastewater. Data are showing that water flowing over or through sections of the derailment area do not have hazardous wastes associated with the derailment. This data, and any future sampling data of water pooled in the ditches, will be used to restore flow from portions of the ditches to Sulphur Run. Restoring things back to the way they were before the derailment has always been a cleanup goal, and it is important to know that this restoration of water flow from the ditches to the creeks *will not* harm the creeks.

When can we access the streams again?

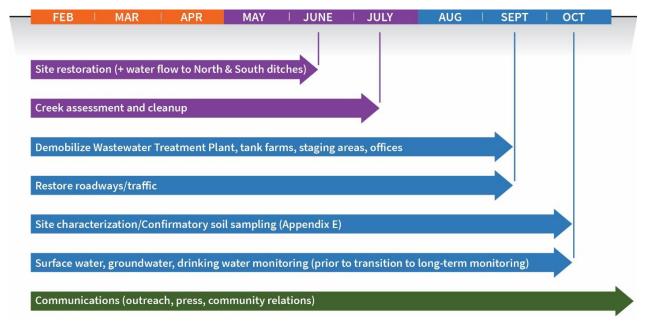
The upcoming cleanup efforts will focus on oil-based compounds which, based on recent sampling, are the only derailment-related contaminants remaining in the creeks. Please obey all posted signage and continue to avoid access in Sulphur and Leslie Runs until further notice.



East Palestine Train Derailment Emergency Response:

Water Management Update

Figure 1 shows the timeline for ongoing cleanup work, including the work described in this fact sheet.



In October 2023, it was announced that the excavation work, which removed the known areas of contaminated soil at the derailment site, was complete. The soil double-check work has been ongoing for months and is expected to continue into the fall. The timeline of our expected completion plans for final site work was shared in a recent newsletter and shown below:

What is the status of the cleanup at the site?