

Technical Memorandum

To: MEMO TO FILE

From: Mark Fishel, P.G. Exide Environmental Response Trust.

Date: July 18, 2025

Re: Site Water Runoff

Purpose

The purpose of this memorandum is to discuss the rainwater runoff and seepage observed Mid-June 2025 at the Exide Trust Frankfort Site.

Background

In late 2024, excavation activities in the northeast area of the site were conducted to remove impacted soil. The excavation, approximately 25 by 65 by 12 feet deep was backfilled with gravel and an infiltration gallery was constructed in accordance with the Interim Measures Remediation Work (IMRWP) dated July 11, 2023. On April 23, the former excavation area was paved with asphalt.

From May 13 -16, 4,500 gallons of Small Droplet Emulsified Vegetable Oil (EVO 8 % solution) were injected into the infiltration gallery to address residual groundwater impacts.

Recent Developments

During the period from June 1, 2025, to June 16, 2025, approximately 9 inches of rain was reported, which is an unusually high amount of precipitation in such a short time. On June 16, 2025, water was observed percolating from the manholes of the injection points in the infiltration gallery and from seams in the asphalt. Rainwater was entering the subsurface through cracks and openings in the mostly paved site and moving along the underlying gravel base to the topographic low area around the infiltration gallery and daylighting through cracks and manholes. The water was discolored by iron (orange) and manganese (black) that are naturally occurring in the soils at the site. In addition, a 2-foot layer of buried scrap metal was noted when the excavation was open and likely contributed to the rust in the water. No emulsified vegetable oil, which would look milky white, was observed.

The runoff from the Site ran under the fence and entered a street drain which discharges to the small unnamed drainage ditch approximately 250 feet north of the northeastern most corner of the Site. This drainage ditch flows intermittently north toward Prairie creek. No discoloration or impacts have been observed in the drainage ditch.

On June 19, 2025, approximately 125-feet of 9-inch-thick straw wattles were installed along the fence line in the area to minimize sediments and/or discoloration from leaving the site. The water seepage lasted 24 to 48 hours after the heavy rainfall.

On June 24, 2025, the seepage was discussed with the City Fire Department, the Indiana Department of Environmental Management (IDEM), and the United States Environmental Protection Agency (EPA). No immediate remedial response was deemed necessary.

A local paving contractor has been contracted to seal the cracks and install a rolled asphalt curb in the infiltration gallery area in Q3 2025, which should mitigate off-site migration of water during future storm events.