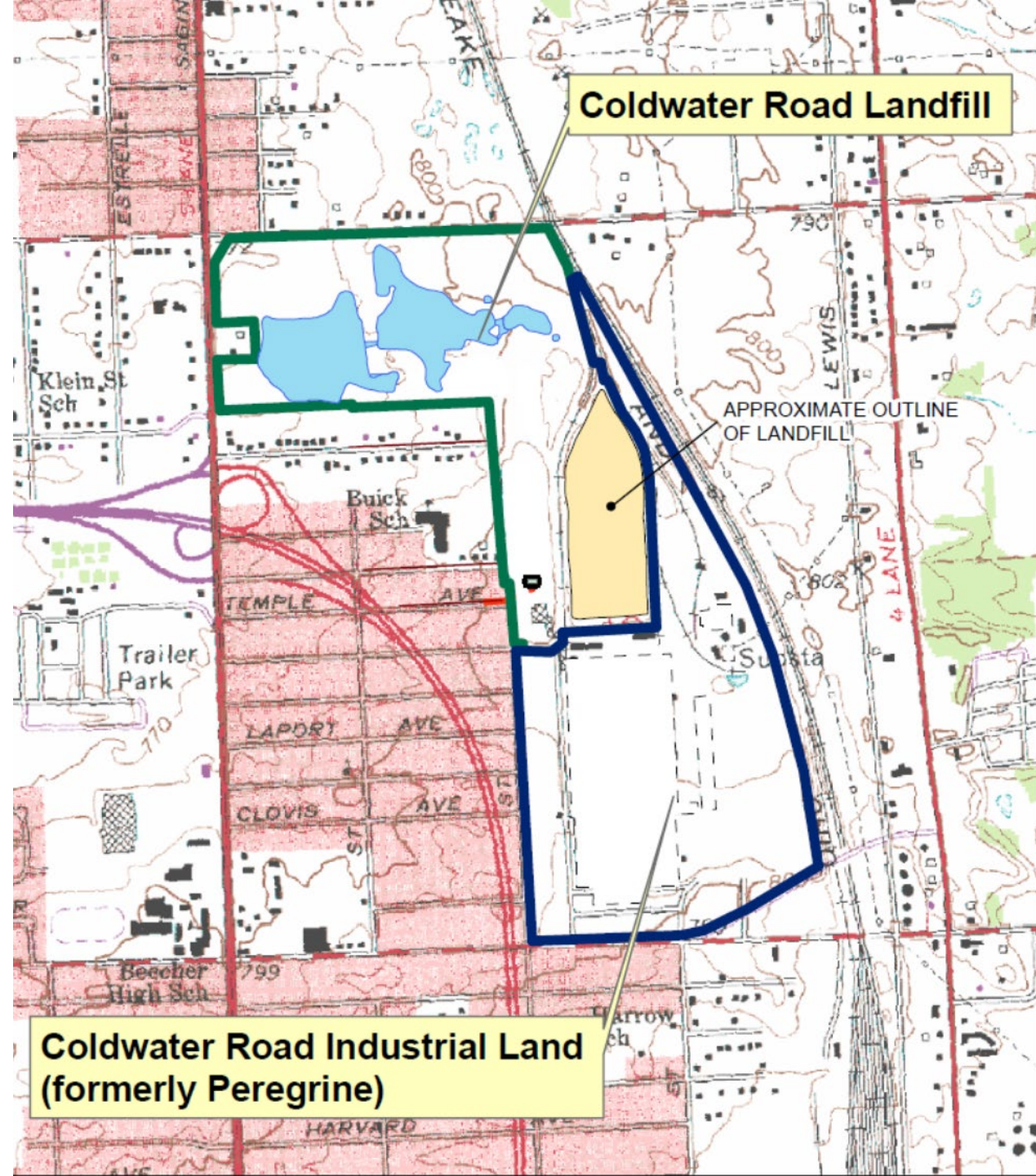


DRAFT

RACER TRUST
COLDWATER ROAD SITE
PFAS ACTIVITY PROGRESS
REPORT – DECEMBER 6, 2021

INTRODUCTION

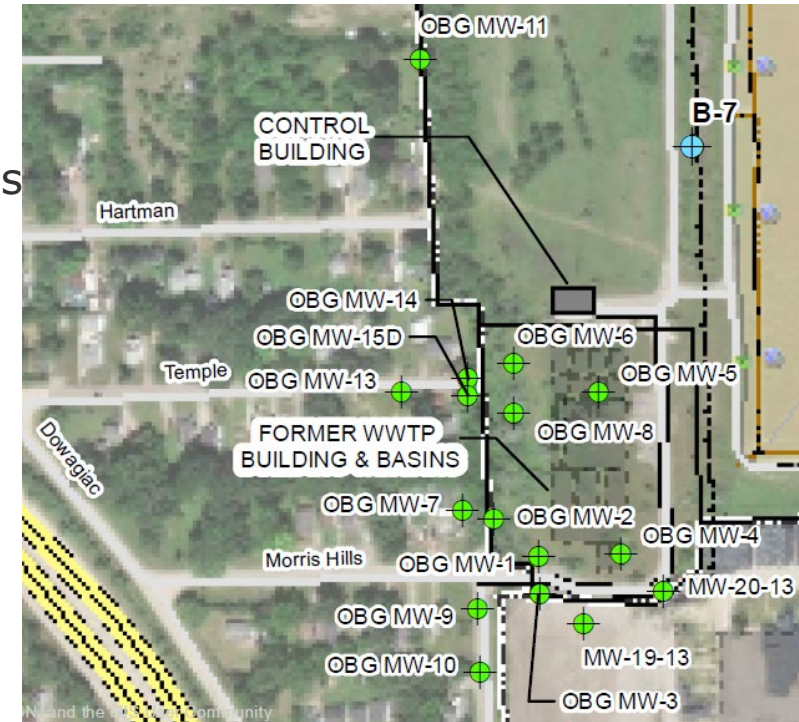
- ❑ Remediation at the RACER Coldwater Road Site is being performed through the RCRA Corrective Action program under the oversight of EGLE. Current activities include RCRA hazardous waste landfill operation and maintenance (O&M), assessment of potential off-site vapor intrusion, and per- and polyfluoroalkyl substances (PFAS) focused site characterization, interim actions, monitoring, and evaluations.
- ❑ Characterization of PFAS in groundwater in glacial deposits to depths of approximately 100 feet below the ground surface is generally completed. Groundwater within the drift aquifer, which may be utilized for drinking water, generally meets drinking water standards. PFAS has been found primarily in shallow (<45 feet below ground surface) groundwater at the Site, except adjacent to the north-eastern portion of the Site where deeper impacts have been observed. PFAS in groundwater extends beyond a portion of the western and northern Site property boundaries.
- ❑ Interim actions for PFAS include replacement and treatment of one residential well, continued operation of the pre-treatment system for landfill discharges to the sanitary sewer and working toward eliminating PFAS discharge offsite through storm and sanitary sewers.
- ❑ Vapor intrusion characterization and evaluation is ongoing near a residential area along the southwestern portion of the Landfill property.
- ❑ Routine groundwater monitoring at the Site in the shallow (perched) zone and the drift aquifer is ongoing and is anticipated to continue. Monitoring of select residential wells, storm sewers, and sanitary sewers is anticipated at least for the next few years.



PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

GROUNDWATER

- Annual groundwater PFAS monitoring was conducted in June 2021 in select wells to monitor stability. The annual PFAS monitoring report was submitted to EGLE in August 2021.
- The June 2021 PFAS results in the perched zone were stable or decreasing except at OBG MW-14 where PFAS concentrations appear to be increasing but are still below the maximum observed concentration and are delineated by non-detect or below criteria PFAS concentrations at OBG MW-13.



The June 2021 PFAS results in the drift unit were stable or decreasing except at OBG MW-27 where PFOS concentrations increased this event, but the results in OBG MW-27 are delineated to the south and west by non-detect or below criteria PFAS concentrations at MW-29 and temporary well sample SBP-72-GW, respectively.

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

GROUNDWATER (Continued)

- Samples were collected from 1217 E. Stanley Road, 1278 E. Stanley Road, and 1320 E. Stanley Road on September 30, 2021. The September results from these wells were below the drinking water criteria, with the exception of the “raw” water from 1278 E. Stanley Road that had PFOS at a concentration of 49 ng/L.



PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

❑ STORM WATER

- ❑ No discharge from the Western Pond to the storm sewer has occurred this year.
- ❑ Rip-rap was placed in the bottom of the swale at the culvert outlets between August 26 and September 16, 2021 to further stabilize the swale and prevent erosion.
- ❑ Four staff gages (SG-4 and SG-5 in the Middle Pond and SG-6 and SG-7 in the Western Pond) were installed in September 2021 and surveyed to help monitor water levels within the two ponds.
- ❑ Surface water samples were collected adjacent to each new staff gage location on September 30, 2021. PFOS concentrations were higher in the Middle Pond (120 ng/l and 150 ng/l), but PFOS concentrations in the Western Pond were similar to previous results (150 ng/l and 170 ng/l).
- ❑ Since storm water improvements to the ponds were completed in August 2021, the approximate water level of the Western Pond has ranged between 771.4 and 772.7 feet MSL and the approximate water level of the Middle Pond has ranged between approximately 788.7 and 790.9 feet MSL.

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

LEGEND

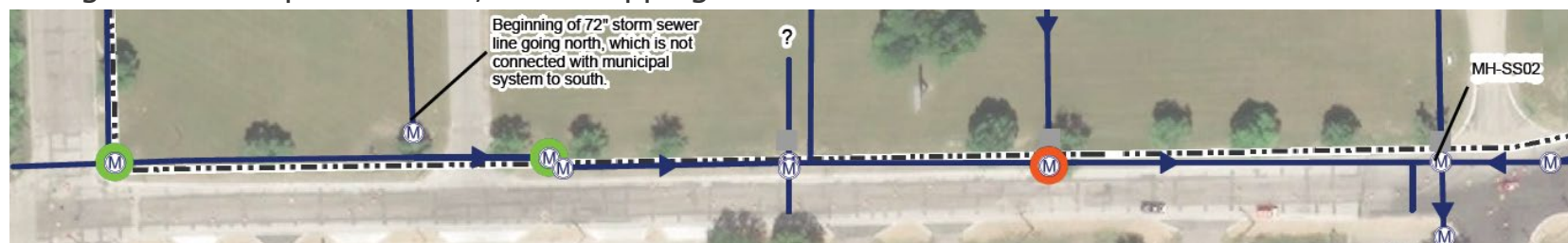
- STAFF GAGE
- BORROW SOIL AREA
- PROPERTY BOUNDARY



PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

□ STORM WATER (Continued)

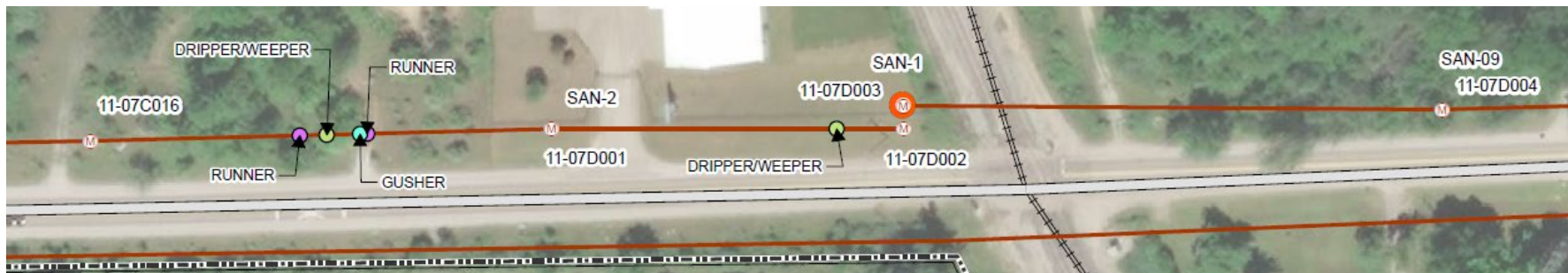
- No storm water samples were collected since the second quarter. Storm water samples are planned for the storm sewers in the Saginaw and Klein area following storm sewer lining activities at the Site.
- Numerous corrective measures to mitigate the discharge of PFAS impacted storm water from the Site have been undertaken. The following were completed since August 2021:
 - September 2021 – Conduct CCTV inspections of storm sewer scheduled for rehabilitation and seal associated manholes, except along Saginaw Road, which will be sealed post lining activities.
- The third quarter 2021 storm water inspection was conducted on September 16, 2021, which indicated:
 - No discharge from the ponds at the site.
 - A trickle was observed at manhole MH-18B and a little flow was observed in manholes MH-18A and MH-18 from water entering the sewers below grade.
 - The railroad spurs east and west of the landfill convey stormwater to the culvert/swale, which discharges to the Middle Pond.
 - Flow was observed along Saginaw and Klein streets, which will be sampled post lining during the first quarter 2022.
 - No flow has been observed from the Site in manhole MH-17A since the section of storm sewer between manholes MH-16 and MH-17A were sealed in June 2021.
 - Flow was observed along Coldwater Road following recent rains. Water may be dripping from the plug at SS-02, which will be sampled during the fourth quarter 2021, if the dripping is confirmed at that time.



PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

❑ SANITARY SEWERS

- ❑ Numerous corrective measures to mitigate the infiltration of PFAS impacted groundwater entering the sanitary sewers adjacent to the Site have been undertaken in accordance with our December 23, 2020 Sewer Rehabilitation (Lining) SOW letter provided to EGLE and the Sewer Rehabilitation Task 1A Memo provided to EGLE on January 28, 2021. The following were completed since August 2021:
 - September 2021 – Conducted CCTV inspections of sanitary sewers scheduled for rehabilitation and seal associated manholes in the area west of the Site.
 - October 2021 – Designed sewer main liners and sealed manholes, except along Saginaw Road.
 - November 2021 – Designed sewer lateral (connections between residences and sewer mains) liners, manufactured liners, completed the point repair along Temple Avenue, and installed the sewer main liners along Morris Hills Parkway and Dunkirk Avenue.
- ❑ During the thrid quarter 2021, four sanitary sewer samples were collected from manholes north of the Site along Stanley Road. No new samples were collected west of the Site. The concentration of PFOS remained stable in downgradient manhole SAN-08, but increased since the last sampling event in the upgradient manholes. The data was provided in an email to the distribution list on September 30, 2021.



PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

LANDFILL

- ❑ The GAC PFAS removal system is operating as designed and GAC drums are changed out and disposed of as necessary. PFAS results, including GAC system performance, are reported quarterly to EGLE and the local sewer municipalities. The latest report (for 3Q 2021) was submitted on October 25, 2021 and indicated that the system continues to reduce PFAS concentrations to below the discharge criteria.
- ❑ Annual leak detection system (LDS) PFAS monitoring was conducted in June 2021 on selected LDS vaults to assess variability. The June 2021 LDS vault results were consistent with previously reported PFAS concentrations. The data was provided in the annual PFAS monitoring report that was submitted to EGLE in August 2021.



WORK IN PROGRESS AND NEAR-TERM MILESTONES ANTICIPATED IN THE NEXT SEVERAL MONTHS

Activity	Schedule
PFAS Monitoring:	
➤ Sanitary Sewer Sampling Along E. Stanley Road	December
➤ Residential Well Sampling (1217, 1278, & 1320 E. Stanley Road)	Late December
➤ Surface Water Water Levels (Western & Middle Ponds)	Late December
➤ Storm Water Inspections and Sampling (SS-17A & SS-02, if flow)	Late December
➤ Post Lining Sanitary and Storm Sewer Sampling West of Site	February/March 2022
PFAS Corrective Measures:	
➤ Establish Vegetative Cover (Stabilize) Stormwater Management Improvements and Termination of SESC Permit	On Going
➤ Complete Lining of Main Sanitary and Storm Sewers, and seal manholes along Saginaw Road	December
➤ Lining Laterals along Sanitary Sewers	December/January 2022
➤ Continue Preparation of Dam Permit Completion Report (will be submitted following termination of SESC permit and establishment of adequate vegetative cover)	December through March 2022