DRAFT

RACER TRUST
COLDWATER ROAD SITE
PFAS ACTIVITY PROGRESS REPORT – AUGUST 2021

RAMBOLL Bright ideas. Sustainable change.

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.

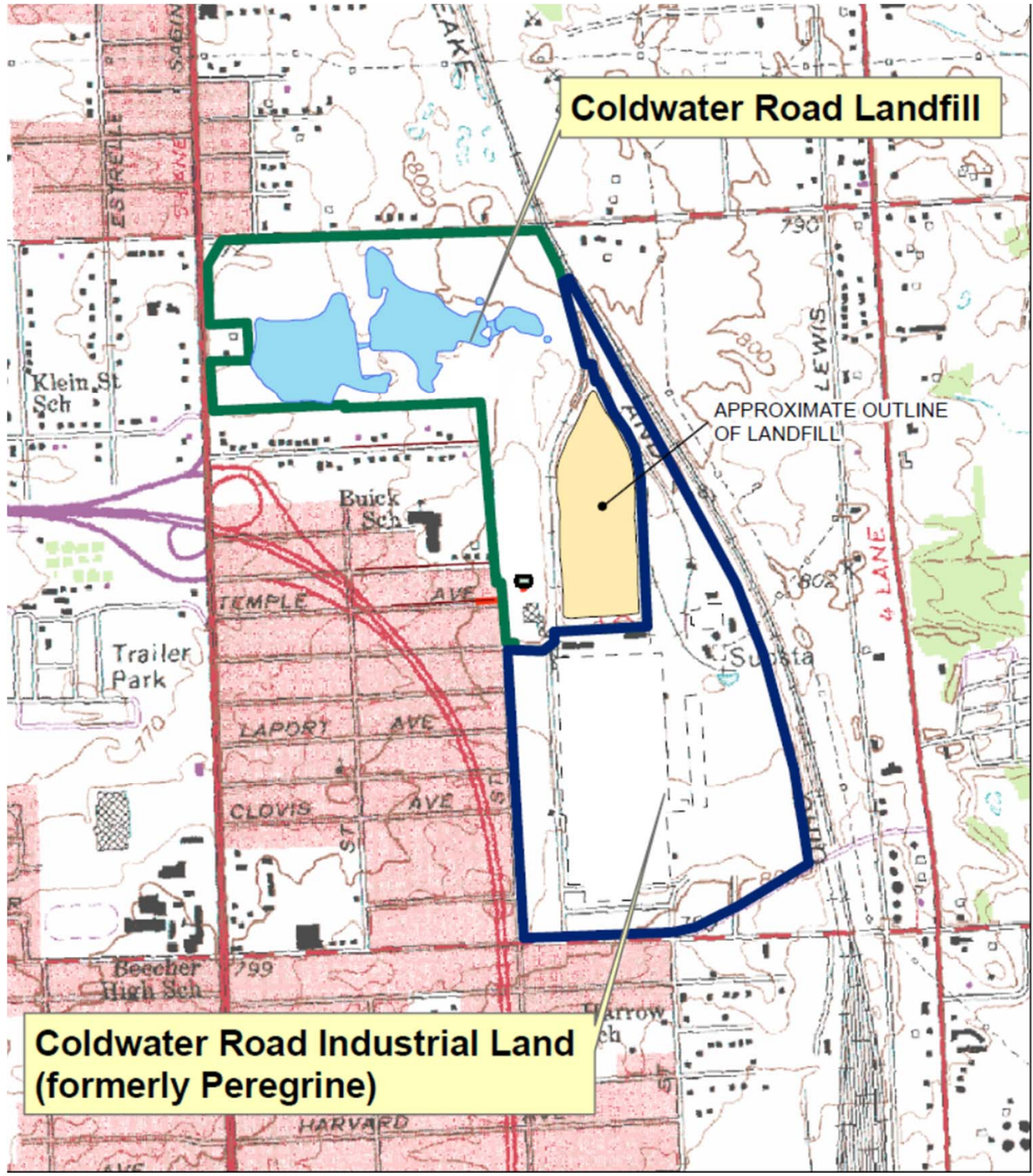
- Characterization of the PFAS plume in glacial soil to depths of approximately 100 feet below the ground surface is generally completed. Groundwater within the drift aquifer, which may be utilized for drinking water, generally meets drinking water standards. PFAS has been found primarily in shallow (<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 and working toward eliminating PFAS discharge offsite through storm and sanitary sewers.

- Vapor intrusion characterization and evaluation is ongoing and will continue at the Site.

- 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.

RAMBOLL



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 will be 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.

RAMBOLL

DRAFT

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

GROUNDWATER (Continued)

- Samples were collected from 1217 E. Stanley Road on April 21, 2021, 1278 E. Stanley Road on June 29, 2021, and 1320 E. Stanley Road on July 22, 2021 (results pending). The latest available 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 55 ng/L.

RAMBOLL

DRAFT

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

STORM WATER

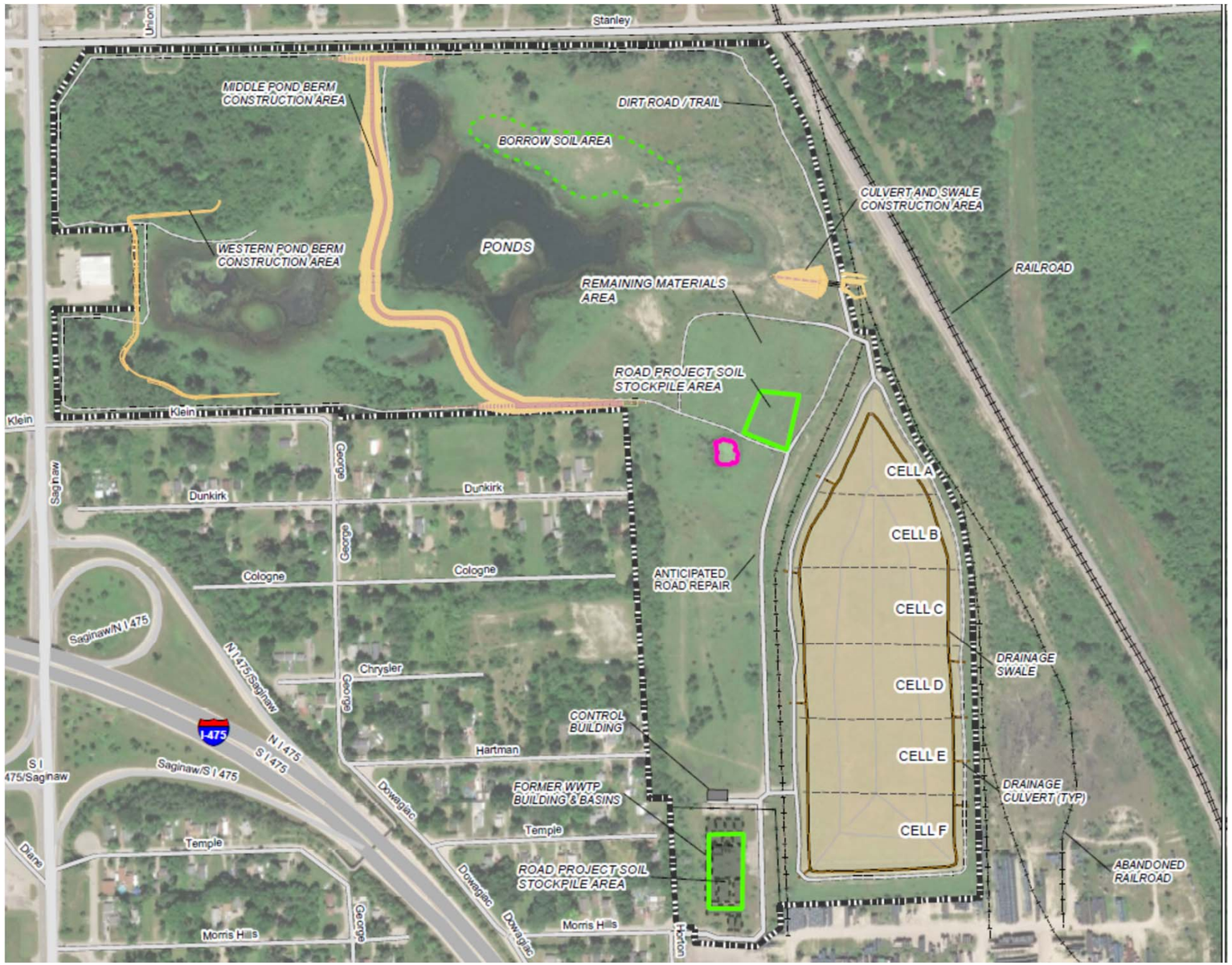
- No discharge from the Western Pond to the storm sewer has occurred this year.
- August 2020 – July 2021 (most recently May 10 through July 12, 2021) – Completed the construction of stormwater management improvements including:
  - Raised the Western Pond berm to 773 ft MSL, which required extending the north and south portions of the berm approximately 300 to 400 feet eastward.
  - Raised the western and southern sides of the Middle Pond to an elevation of 792.5 ft MSL with a spillway set at 791 ft MSL.
  - Connected the railroad spurs located on the east and west sides of the landfill that convey stormwater from the greater Site area to the pond area through the installation of culverts and a swale.
  - Filled in the low-lying area within the Remaining Materials Area (RMA) to eliminate ponding of storm water; therefore, reducing infiltration through PFAS impacted soil within this area of the Site.
- The approximate water level of the Western Pond is between 770.5 and 771.0 feet MSL and the approximate water level of the Middle Pond is between approximately 788.0 and 788.5 feet MSL. Therefore, both ponds are functioning as designed.

RAMBOLL

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

LEGEND

- LOW-LYING AREA
- BORROW SOIL AREA
- CONSTRUCTION AREA
- PROPERTY BOUNDARY
- SOIL STOCKPILE AREA



RAMBOLL

DRAFT

PFAS INVESTIGATIONS/EVALUATIONS/CORRECTIVE MEASURES

STORM WATER

- During the second quarter 2021 stormwater samples were collected from SS-06, SS-07, and from manhole MH-18, which represent the water coming from the city storm sewer along Saginaw Road north of Klein Street, the combined flow leaving the vault under the northeast corner of Saginaw Road and Klein Street toward the west, and the storm water leaving the Site from the Western Pond area, respectively. SS-06 contained PFOS at a concentration of 14 ng/L, just above the Surface Water Quality Standard of 12 ng/L, while SS-07 had PFOS at a concentration of 5.5 ng/L, and MH-18 had a PFOS concentration of 310 ng/L, but a very low flow rate. The concentrations at SS-06 and SS-07 decreased compared to the first quarter 2021 results, and the concentrations at MH-18 increased slightly. Results were provided via an August 4, 2021 email.

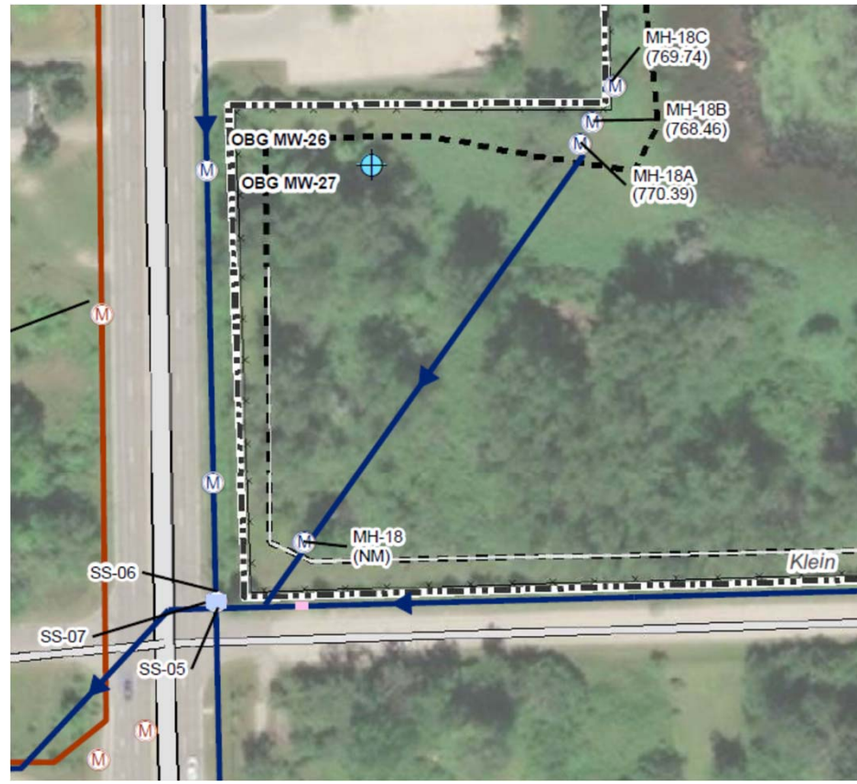
- Numerous corrective measures to mitigate the discharge of PFAS impacted storm water from the Site have been undertaken. The following were completed during 2021:

  - January – May 2021 – Design storm sewer rehabilitation measures in accordance with our December 23, 2020 Sewer Rehabilitation Scope of Work letter provided to EGLE.

  - May – August 2021 – Procure storm sewer rehabilitation contractor to complete designed rehabilitation work.

  - May – June 2021 – Sealed bulkhead at MH-16 within the 72-inch storm sewer with 6 inches of high strength cement and resealed the first 15 joints from the bulkhead and the remaining 39 joints all the way to manhole MH-17A with hydraulic cement that was then coated with high strength cement to the extent possible.

- No flow has been observed from the Site in manhole MH-17A since the work was completed in June 2021.



RAMBOLL

DRAFT

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. The following were completed during the 2021:
  - January – May 2021 – Design sanitary sewer rehabilitation measures.
  - May – August 2021 – Procure sanitary sewer rehabilitation contractor.
  - April 2021 – CCTV videoed sanitary sewer along Stanley Road to verify the affects of repairs completed in September 2020 and evaluate whether additional repairs were necessary west of manhole D003. Five additional cast in-place pipe (CIPP) point repairs (i.e., patches) were completed to mitigate the infiltration of groundwater into the sanitary sewer along Stanley Road. In addition, manhole D003 was sealed to mitigate infiltration of groundwater into the sanitary sewer.
- During the second 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. Samples were taken from manholes II-07C016 (C016), SAN-2 (within the area of known groundwater impacts), SAN-08 (downstream of known groundwater impacts), and SAN-09 (upstream from Site impacts). The concentration of PFOS in SAN-09 increased since its last sampling event from non-detect to 15 ng/L, where as SAN-2 and SAN-08 decreased or remained stable at concentrations of PFOS of 22 ng/L and 16 ng/L, respectively. The concentration of PFOS at C016 was 24 ng/L which is similar to SAN-2.

RAMBOLL

DRAFT

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 was submitted on July 26, 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 annual PFAS monitoring report will be submitted to EGLE in August 2021.

RAMBOLL

DRAFT

WORK IN PROGRESS AND NEAR-TERM MILESTONES ANTICIPATED DURING THE THIRD QUARTER OF 2021

Activity	Schedule
PFAS Monitoring:	
➢ Preparation of Annual PFAS Monitoring Report	August
➢ Residential Well Sampling (1217, 1278, & 1320 E. Stanley Road)	Late September
➢ Surface Water Sampling & Water Levels (Western & Middle Ponds)	Late September
➢ Storm Water Sampling (SS-17A, if flow)	Late September
PFAS Corrective Measures:	
➢ Establish Vegetative Cover (Stabilize) Stormwater Management Improvements and Termination of SESC Permit	On Going
➢ Preparation of Dam Permit Completion Report	August/November
➢ Procurement of Sewer Rehabilitation Contractor	August
➢ Sewer Rehabilitation Permitting and Access Agreements	August/September
➢ CCTV Inspections, Liner Design and Manufacturing	August/September
➢ Begin Lining Main Sanitary and Storm Sewers	October