

Mr. Brian Zuber

Senior Environmental Quality Analyst
Emerging Pollutants Section, WRD
Department of Environment, Great Lakes,
and Energy
PO Box 30473
Lansing, MI 48909-7974

RE: Corrective Action Plan - Violation Notice No. VN-012757
Coldwater Road Site
6220 Horton Street, Mount Morris, MI
MID 005 356 860

FILE: 1088190/1940102192/Reports

Date June 3, 2022

Dear **Mr. Zuber**:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, Ramboll Americas Engineering Solutions, Inc. (Ramboll) is providing the following Corrective Action Plan to address the Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Water Resources Division Violation Notice No. VN-012757 dated May 4, 2022 (VN). The letter was regarding storm water discharges from the RACER Trust Coldwater Road Facility located at 6220 Horton Street, Mount Morris, Genesee County, Michigan (Site). The corrective actions and timelines follow the same order as presented in your letter.

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Background

RACER Trust, in accordance with the Environmental Response Trust Consent Decree and Settlement Agreement entered by the U.S. Bankruptcy Court for the Southern District of New York on March 29, 2011, in the case of In re Motors Liquidation Company, etc. et al., Debtors, Case No. 09-50026 (REG), among the Debtors, the United States of America, certain states including the State of Michigan, the Saint Regis Mohawk Tribe, and EPLET, LLC, (not individually but solely in its representative capacity as Administrative Trustee of RACER Trust), has been cooperating with EGLE to implement post closure care and corrective action at the Site since 2011 and specifically to mitigate off-Site discharge of perfluorooctanesulfonic acid (PFOS)-impacted storm water to the waters of the State of Michigan since this problem was identified in 2018. RACER Trust has provided EGLE with several work plans, proposals, periodic progress updates, and participated in meetings related to work being performed at the Site in relation to per- and polyfluoroalkyl substances (PFAS) since July 2016.

Stormwater for the majority of the Site – Ponds and Berms

Surface water and storm water samples collected in September and November 2018 indicated that the water within the ponds on-site (see [Figure 1](#)) and the water draining off-site to the west through the 72-inch storm sewer contained PFAS, and specifically PFOS, above its Water Quality Value (WQV - 12 ng/l) (subsequent sampling confirmed the 2018 results). Therefore, beginning in December 2018, Ramboll, on behalf of RACER Trust began to implement corrective measures to mitigate the discharge of surface water from the Site. Please see [Figure 1](#) for an overview of the Site storm water system, which also shows previous sample locations, and modifications to the storm sewers that have been made. The exact amount and frequency of flow that previously discharged off-Site from the Western Pond is not known but when a discharge occurred it is estimated to be tens to hundreds of gallons per minute depending on precipitation amounts or snow melt. One corrective measure completed since August 2019 has been to monitor storm sewers and the monitoring program has been updated as appropriate over time. [Appendix A](#) contains the current monitoring locations, scope, and schedule.

Another corrective measure as approved by EGLE included raising the berm along the western edge of the Western Pond two feet higher to an elevation of 772 feet mean seal level (ft MSL) to contain water in the ponds on-Site. A wetland permit was obtained, and the work was completed from December 2018 through February 2019.

In addition, and also approved by EGLE, the rip-rap filled trench that allowed drainage from the Middle Pond to the Western Pond was removed and the Middle Pond berm near the former outlet was raised one foot to contain the surface water and storm water within the Middle Pond to an approximate elevation of 786 ft MSL.

Following the 2018-2019 measures to increase the height of the berms it became apparent that a more comprehensive surface water run-off management strategy was needed for the Site; therefore, in 2019, storm water modeling was conducted to evaluate retaining storm water on Site. As a result of this analysis Ramboll recommended that stormwater runoff from a significant portion of the former Peregrine site (former operational portion of the larger facility) be directed to the Middle Pond to prevent off-site discharge of run-off from that area, the Western Pond berm be raised an additional foot to 773 ft MSL, and the Middle Pond berm be raised to a height of 792.5 ft MSL with a spillway (aka overflow structure) height of 791 ft MSL. It was estimated that by implementing these steps the storage capacity of the modified ponds would be able to contain runoff from up to a 200-year storm event or the recent wettest year's rainfall (for 2011) in a non-discharge scenario. Key factors in this evaluation were evapotranspiration and exfiltration from the pond bottoms. EGLE approved this plan, and the necessary permits were obtained for this work, including a permit from EGLE, and the work was completed from August 2020 to July 2021.

The vegetative cover on the overflow structure did not become adequately established prior to winter to withstand the unexpected overflow experienced in December 2021; although, the berm was stabilized to the extent that Genesee County terminated the Soil Erosion and Sedimentation Control (SESC) permit in November 2021.

The storm water storage in the Middle and Western Ponds was found to not perform as modeled, with the belief that actual exfiltration from the pond bottoms is less than used in the surface water modeling completed. Water flowing over the overflow structure of the Middle Pond and overtopping a portion of the berm for the Western Pond was first observed on December 13, 2021, and was noted to have stopped on January 14, 2022, but began again on February 24, 2022.

It is noted that the approach proposed by RACER Trust and approved by EGLE to modify storm water flow and increase the storage capacity of the ponds and retain storm water runoff on the Site and therefore not result in the need for treating storm water or obtaining a permit to discharge treated storm water was appropriate given RACER Trust's finite and limited resources. Retaining storm water on-site with no off-site discharge would have had relatively minimal operation and maintenance costs over time.

As we recognized that there was a potential for flow over the overflow structure and the western berm there was consideration of a contingency to address that situation prior to December 2021. However, flow over the overflow structure and the western berm was observed much sooner than ever expected. Therefore, the pace of identifying a contingency was quickened and steps were initiated to implement temporary treatment and controlled discharge. A Temporary Pond Water Management Plan was submitted to EGLE on March 9, 2022, via email, and a Storm Water Management Improvement Corrective Measures Options Analysis was submitted on March 22, 2022. EGLE was contacted during this timeframe, and we were informed that an emergency or quick turnaround on an NPDES permit application for treating and discharging the storm water was not possible. As there was no practical way to prevent storm water discharge from the Site via the ponds a system to control and treat the water to remove PFOS prior to discharge was implemented. It was better to discharge treated water than allow untreated water to continue to discharge.

Although not formally approved by EGLE, there was coordination with EGLE and a temporary PFOS treatment system was setup and started on April 1, 2022, and has been operating to the maximum extent practical since to treat the pond water from the Western Pond prior to discharge to the storm sewer system.

Another factor in the decision to move forward with the temporary treatment system was that water flowing over the Middle Pond overflow structure was eroding the structure, and water flowing over a portion of the Western Pond berm was eroding that portion of the berm. As an initial, temporary measure to prevent further erosion, a plastic liner was placed over the eroded areas until more permanent repairs could be made. Subsequently a piping configuration was installed to siphon water from the Middle Pond and convey it to the Western Pond to lower the water level in the Middle Pond and prevent flow over the overflow structure. The Middle and Western Pond berms were repaired the week of May 16, 2022.

Stormwater for the majority of the Site – 72-Inch Storm Water Pipe

Another key former storm water feature was the 72-inch diameter storm water pipe that conveyed storm water from approximately 135 acres of the Site. The exact amount of flow that previously went through this pipe is not known but is estimated to be tens to hundreds of gallons per minute depending on precipitation amounts or snow melt. PFOS was detected in the water in this pipe above its WQV. As approved by EGLE, in 2018 the 72-inch diameter storm sewer was plugged at manhole MH-16 and the

pipe bulkheaded to prevent discharge of PFOS-impacted water off-site. Manhole MH-16 was selected to be plugged and bulkheaded because it is downgradient of the extent of PFOS impacts observed in the perched zone groundwater that was infiltrating into the pipe and the groundwater level was below the pipe downstream from MH-16.

Subsequent measures for the 72-inch diameter storm water sewer, including plugging 6 upstream manholes to hydraulically isolate sections of the sewer and relieve hydraulic pressure on various individual plugs along the 72-inch diameter line, and to allow the water accumulated in the storm sewer to equilibrate with groundwater levels. A total of approximately 24 catch basins and other inlets to the storm sewer were also plugged, and approximately 70 catch basins or other inlets were capped to mitigate stormwater entering the storm sewer to relieve pressure on the 72-inch line. The area around the Manhole MH-16 structure was jet-grouted to supplement the manhole being plugged to prevent PFOS-impacted groundwater from flowing around the plugged manhole and infiltrating the sewer further downstream. Finally, the storm sewer bulkhead and 36 joints downstream of Manhole MH-16 were sealed, which appears to have eliminated discharge off-site through that pipe. No flow has been observed in the storm water pipe since April 2021.

In April 2019, the 18-inch storm sewer located approximately 30 feet west of Manhole MH-10 and just north of the entry gate and road to the landfill portion of the Site, was plugged to eliminate flow of water in the storm sewer to the west and discharging to the drainage ditch at the Site boundary. No discharge has been observed at this location since April 2019.

In addition, in December 2021 the 12-inch onsite storm sewer line adjacent to the Western Pond that connects to the municipal system and a portion of the 36-inch off-site municipal storm sewer located along Saginaw Road were lined to prevent PFOS-containing groundwater from infiltrating into these lines.

Southern Portion of Site

Based on the available information from the storm water management system evaluated in 2018, there were also on-site storm sewer pipes that discharged into the municipal system off-site along the north side of Coldwater Road, which is along the southern boundary of the Site. Therefore, the water from these pipes was sampled and analyzed for PFAS. Because the water discharging from these pipes contained PFOS above its WQV, actions were initiated to terminate the discharges.

The activity to stop discharges to the municipal system along the north side of Coldwater Road included in January 2019, plugging the 12-inch storm sewer pipe (SS-02) leaving the southern portion of the Site and previously discharging to manhole "Outfall SS02". Two catch basins/manholes where storm water could enter the storm water lines leading to the 12-inch line were capped in January 2019. The flow rate which before plugging was observed to be tens of gallons per minute was reduced to no discharge. However, a few drops per minute were observed leaking from the plugged line during the September 16, 2021 inspection. Note the concentration of PFOS in the discharge from SS-02 decreased from 1,520 µg/l on November 12, 2018 to 86 µg/l on December 21, 2021.

In order to address the observed trickle from SS-02, additional measures were completed on May 31, 2022 to stop the trickle. The measures included excavating approximately 75 feet north of SS-02 to

expose the pipe, breach the pipe, fill the southern part (downstream) with a cement mixture to seal it, and fill the excavation with a cement mixture to above both ends of the breached pipe.

Another corrective measure in the southern portion of the Site was plugging Manhole MH-10D near the entrance gate to the parking lot in the southwestern portion of the Site. This manhole was plugged in February 2019 to alleviate hydraulic pressure and flow of water out of the southernmost manhole for this portion of the sewer line that drained to the north and connect to the 72-inch line. Water had been daylighting and running over land to the drive entrance and then into Coldwater Road. Flow out of the southernmost manhole has not been observed since.

After it was identified that there was a pipe from the Site discharging into manhole MH-10E, which is part of the municipal storm sewer system along the northside of Coldwater Road, the pipe from the Site entering manhole MH-10E was plugged and one upstream, on-Site storm sewer catch basin was capped in May 2020 to mitigate stormwater leaving the Site from this line into the municipal system.

The municipal storm sewer line along the northside of Coldwater Road was video inspected in October 2020 in order to assess other potential discharges from the Site into this line. Based on observations for the video inspection, manhole MH-10E along Coldwater Road was sealed/lined to stop a trickle coming into the manhole from around the plugged pipe from the Site. No flow has been observed from the plug since the manhole was sealed in October 2020. In addition, a storm sewer pipe coming from the Site and entering the manhole (does not have a manhole designation) approximately 230 feet west of manhole MH-10E was identified and plugged to stop flow of stormwater from the Site into this manhole, and one upstream, on-Site storm sewer catch basin was capped in May 2020 to mitigate stormwater leaving the Site from this line into the municipal system. No flow has been observed from the plug line since October 2020.

The plugged storm sewers in the southern portion of the Site described above were added to the monitoring program started in August 2019.

In response to EGLE's request, information provided by EGLE in March 2022, and a discussion with EGLE in April 2022, Ramboll, on behalf of RACER Trust, began further evaluation of the storm sewer system south of the Site. A summary of the initial findings from this evaluation was submitted to EGLE via email on April 21, 2022. Several additional steps have been taken to date, including: conducted a historical property use review for properties on Coldwater Road between Horton Street and Dort Highway; collected samples from the storm water sewers south of the Site along Coldwater Road on April 14, 2022 (SS-11 on E. Kurtz west of EGLE's CD-10 and SS-12 just north of CD-10 on Harry Street), and on May 16, 2022 (SS-13 east of SS-02 and from the north branch of the storm sewer receiving stormwater from the Site, and SS-14 from the city storm sewer coming from the west into the same manhole as SS-02 and downstream from MH-10E and the unnamed manhole 230 feet west of MH-10E) ([Figure 2](#)); and video inspected several of the sewers south of the Site on June 1, 2022.

Corrective Action Plan and Timeline

The following corrective action plan is proposed to address EGLE's comments and requests presented in their May 4, 2022 letter. On page 4 of the VN EGLE requested 5 items be included in a corrective action plan. As items 1 through 3 are related they will be grouped together and addressed first. Items 4 and 5 are related and will be grouped together and addressed second. The requested items are provided for reference.

1. Corrective actions to treat, reduce, and/or eliminate remaining contaminated discharges from the southern portion of the Site, if any. If all discharge points have been plugged, please provide a statement to that effect.

Discharge points from the Site to the municipal storm sewer system along the northside of Coldwater Road west of the middle entry drive to the Site have been identified and plugged.

2. A timeline for addressing the remaining contaminated discharges, if any, from the southern portion of the Site.

3. A timeline for investigating potential impacts from current and historically contaminated discharges from the southern portion of the Site to the MS4 associated with Cornwell Drain.

Task 1 - Complete the evaluation of the currently available information related to the storm sewer system along the southern Site boundary east of the middle entry drive and south of Coldwater Road and prepare and submit a report to summarize data and information, provide context for the results/information, and provide recommendations for additional investigation/evaluation or other activities and timelines as appropriate based on the findings.

Target submittal date¹ – on or before July 15, 2022.

4. If applicable, updated corrective actions to treat, reduce, and/or eliminate contaminated discharges from the storm water ponds.

5. An updated timeline for implementation of the corrective actions associated with discharges from the storm water ponds.

Task 2 – Observe and record water levels in the Middle and Western Ponds via staff gauges 4, 5, 6, and 7, and treat and discharge water as necessary from the Middle and Western Ponds in general accordance with the submitted NPDES permit application in order to prevent untreated discharge of water in the ponds.

Target date¹ – Observe staff gauges at least once a month (note this frequency will be modified as appropriate based on observations over the next several months as we gain a better understanding of how the ponds respond to precipitation events), and as necessary treat and discharge water from the ponds to prevent off-site discharge of water containing PFOS above it WQV.

Task 3 - Complete the on-going treatability study of the pond water, prepare a summary report, and submit to EGLE.

Target Submittal Date¹ – On or before July 29, 2022.

Task 4 - Seal leaks in onsite manholes MH-18A and MH-18B to prevent groundwater from infiltrating the manholes below grade.

Target Completion Date¹ – After terminating operation of the current temporary treatment system and depending upon contractor availability. Estimated to be in July/August.

Task 5 - Collect post-storm sewer lining samples after sealing of manholes MH-18 and MH-18B and prepare and submit memo summarizing results and any recommendations. Samples will be collected at the following locations:

- SS-10 the manhole north of Klein Road on the east side of Saginaw Road to evaluate the flow coming from the north.
- MH-18 (if flowing) located on the RACER Trust Coldwater Road property at the corner of Klein and Saginaw Street.

Target Submittal Date¹ – Eight weeks after Task 4 is completed.

Task 6 - Update the Storm Water Management Improvement Corrective Measures Options Analysis (submitted to EGLE on March 22, 2022) with what has been learned and the data collected from operation of the temporary pond water treatment system and the pond water treatability study. Given RACER Trust's finite and limited resources, it is important that RACER Trust complete a thorough evaluation of potential longer-term options to prevent discharges of water containing PFOS above it WQV from the ponds and as importantly for EGLE to understand the cost implications of the any longer term solution, particularly if the water has to be treated prior to discharge.

Target Submittal Date¹ – On or before September 16, 2022.

Task 7 - Continue to conduct quarterly storm water monitoring in accordance with the details included in [Appendix A](#) and modify the monitoring plan as appropriate.

1 – Note that RACER Trust's ability to meet the above target dates could be impacted if it becomes necessary to request and obtain EGLE approval for additional budget to complete any one task.

Target dates and timelines to complete activity beyond the tasks and dates identified above are dependent upon several factors including but not limited to EGLE review times, the significance of any EGLE comments, and contractor availability.

In accordance with the current standard practice, periodic progress reports will continue to be provided to EGLE and other stakeholders.

RACER Trust is committed to continue to evaluate and mitigate PFAS impacts related to former GM operations at the Site in a timely manner. However, RACER Trust has finite, limited resources and given the many complexities associated with PFAS, these evaluations and the associated corrective measures often take considerable time to understand and to address cost effectively.

Please let us know if you have any questions or would like to discuss.
Yours sincerely,

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

A handwritten signature in blue ink that reads "Clifford Scott Yantz".

Clifford Yantz

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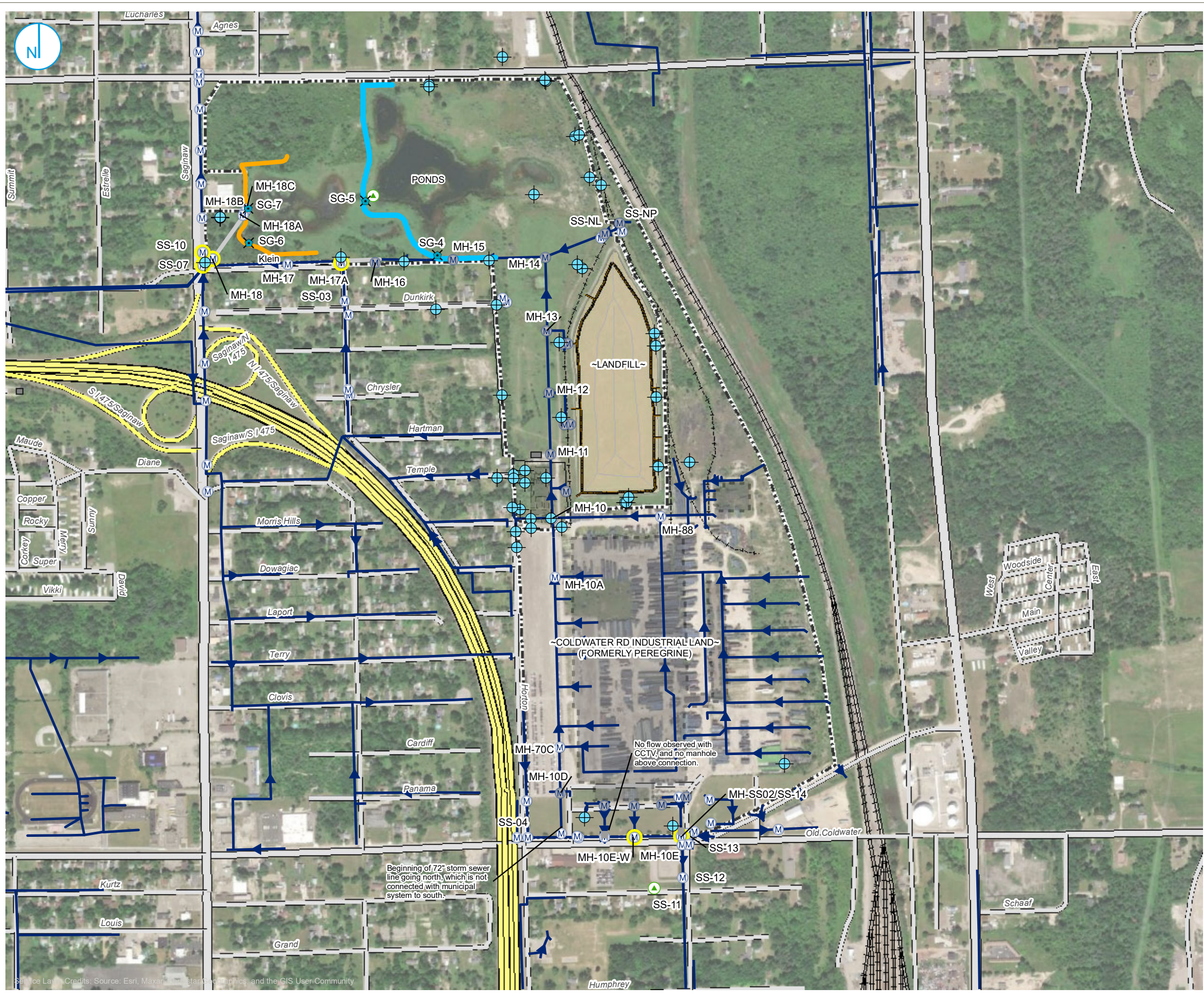
Enclosures:

Figure 1 – Storm Water Sewers – Sample Locations
Figure 2 – Storm Water Sewers – South of Site (Horton Street to Dort Highway)
Appendix A – Storm Water Monitoring Matrix

cc:

Stephanie Kammer, EGLE
Cheri Meyer, EGLE
Dale Bridgford, EGLE
Jacob Runge, EGLE
Nicole Sanabria, EGLE
David Favero, RACER Trust
Kevin Schneider, Ramboll

FIGURES



- MONITORING WELL / PIEZOMETER
- STORM SEWER MANHOLE
- MANHOLE ABANDONED AND PLUGGED
- STORM SEWER SAMPLE LOCATION TO BE SAMPLED
- SURFACE WATER SAMPLE LOCATION
- STAFF GAUGE
- STORM SEWER PIPE PLUG
- STORM SEWER
- SEALED STORM SEWER
- PROPERTY BOUNDARY
- FORMER BUILDING
- COMPLETED BERM
- MIDDLE POND BERM - ELEV. 792.5

0 325 650
Feet

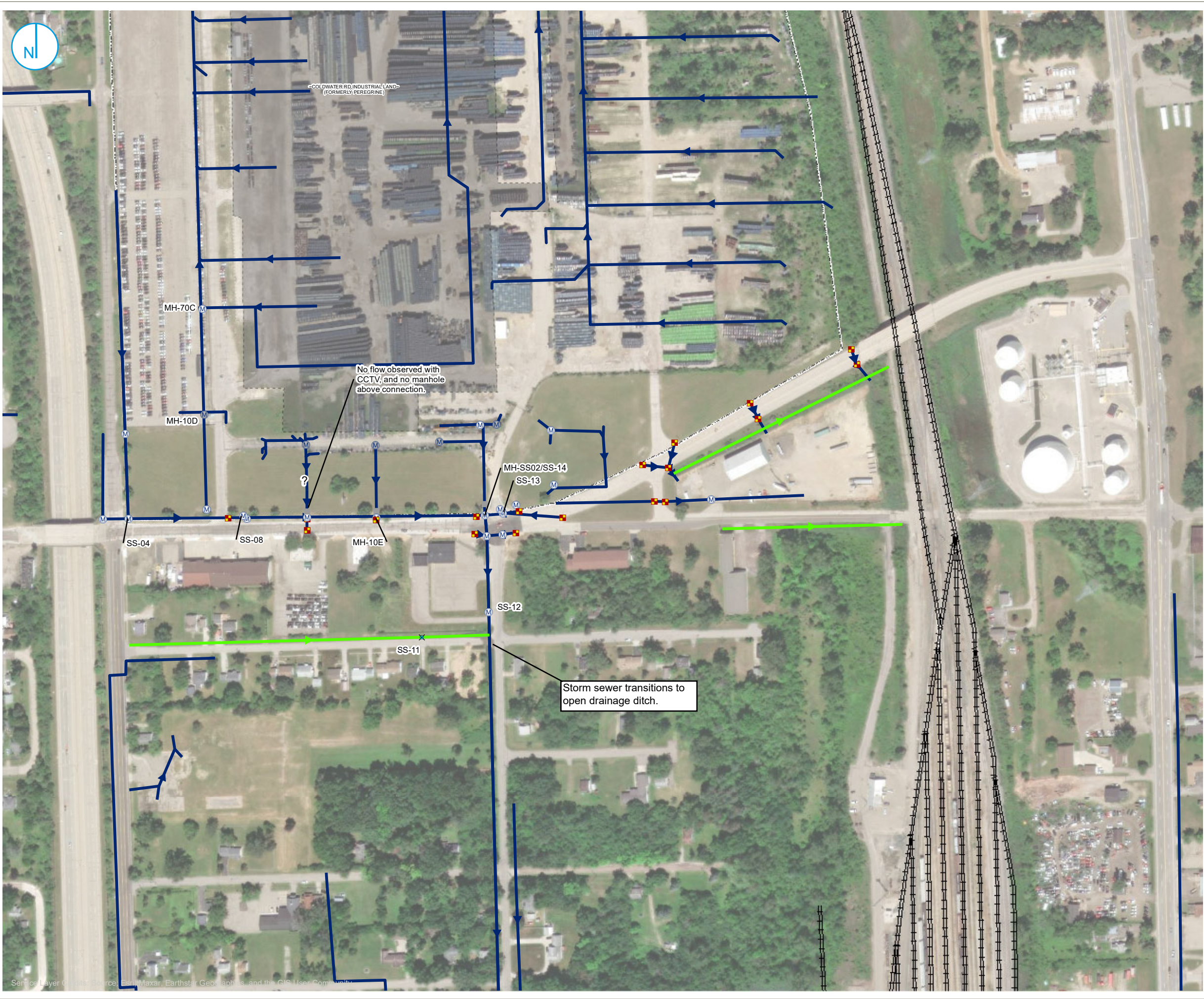
STORM SEWER / MANHOLE INSPECTION / SAMPLE LOCATIONS

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 01

RAMBOLL AMERICAS ENGINEERING
SOLUTIONS, INC





- ABANDONED MANHOLE
- STORM SEWER DRAIN
- STORM SEWER MANHOLE
- PIPE PLUG
- SURFACE WATER
- DRAINAGE DITCH
- STORM SEWER
- FORMER BUILDING
- PROPERTY BOUNDARY

0 140 280
Feet

GENESEE STORM SEWERS
(HORTON ST TO N DORT HWY)

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 02

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY



APPENDIX A

STORMWATER MONITORING MATRIX

TABLE 1
RACER Trust - Coldwater Road & Peregrine Facilities
Pre- and Polyfluoroalkyl Substances Stormwater Monitoring Matrix

Stormwater Monitoring Locations	Visual Flow Observation	Flow Rate Estimate	Sample Collection for PFAS Analysis Frequency, if flowing water present
	Inspection Frequency		Sample Frequency
Pond Areas			
Eastern/Middle Pond Berm - Discharge to Western Pond	Quarterly	Quarterly	--
Western Pond Berm	Quarterly	Quarterly	--
Western Pond Surface Water Sample (SW-15 Sampling Location)	Quarterly	Quarterly	--
West of Western Pond (Small ponded area)	Quarterly	Quarterly	--
Manhole MH-18C - Receives discharge, if any, from Western pond	Quarterly	Quarterly	--
Manhole MH-18B - Receives water from MH-18C	Quarterly	Quarterly	--
Manhole MH-18A - Receives water from MH-18B	Quarterly	Quarterly	--
Manhole MH-18 - Receives water from MH-18A	Quarterly	Quarterly	As Needed
Railroad Spurs			
Eastern RR Spur (SS-NP)	Quarterly	Quarterly	--
Western RR Spur (SS-NL)	Quarterly	Quarterly	--
Staff Gauge Measurement			
Staff Gauge #4	Quarterly	Quarterly	--
Staff Gauge #5	Quarterly	Quarterly	--
Staff Gauge #6	Quarterly	Quarterly	--
Staff Gauge #7	Quarterly	Quarterly	--
Individual Stormwater Manholes			
Manhole MH-10 - Near entrance gate of landfill	Quarterly	Quarterly	--
Manhole MH-17A - Downstream of MH-16 plug	Quarterly	Quarterly	As Needed
Manhole MH-17A - Stormwater from neighborhoods west of landfill	Quarterly	Quarterly	--
Manhole at northeast corner of Saginaw and Klein Streets (flowing from south = SS-05)	Quarterly	Quarterly	--
Manhole at northeast corner of Saginaw and Klein Streets (flowing to west = SS-07)	Quarterly	Quarterly	--
Manhole north of Klein on eastside of Saginaw (west of OBG MW-26)	Quarterly	Quarterly	--
Manhole north of Klein on eastside of Saginaw (flowing from north = SS-10)	Quarterly	Quarterly	--
Manhole at corner of Coldwater Road and Horton (SS-04 location)	Quarterly	Quarterly	--
Manhole about 300 feet upstream from MH-10E (SS-08)	Quarterly	Quarterly	--
Manhole MH-10E-W - Along Coldwater Road - Southend of Site (Monitoring flow in municipal sewer pipe)	Quarterly	Quarterly	--
Manhole MH-10E Plug - Along Coldwater Road (Monitoring flow from RACER Site)	Quarterly	Quarterly	As Needed
Manhole for SS-02 Plug - Along Coldwater Road near entrance for Peregrine Site	Quarterly	Quarterly	As Needed

Notes

- 1) Monitoring will be conducted at a minimum quarterly, while on site for other activities.
- 2) -- No sample collected.
- 3) Samples will only be collected if flowing water is observed at selected locations.
- 4) The storm water inspections will be revised as needed in conjunction with the NPDES Permit.