Revitalizing Auto Communities
Environmental Response Trust

June 13, 2016

Mr. Keith Noble
Michigan Department of Environmental Quality
Saginaw Bay District Office
401 Ketchum Street, Suite B
Bay City, MI 48708

Re: RACER NPDES Permit No. MI0059042
Outfall modification

Dear Keith:

In response to your request for a better method of installation to ensure the security of the berm we have prepared a memo that describes the construction sequence to install the modified outfall with full confidence the berm integrity will not be compromised. Further, we have proposed after the first section of pipe is placed that soils will be packed around the pond side and the area behind that will be pumped dry before the remaining portion is backfilled and compacted.

We will also coordinate with GM to ensure this work does not interfere with GM's existing leachate discharge line.

The drawing showing the location of the revised outfall is attached.

Please let us know if you have any further questions or require further information.

Sincerely,

Grant Trigger
Michigan Cleanup Manager

Memorandum

To:	Keith Noble, MDEQ	Ref. No.:	058502-T02
	J.E.P.		
From:	John-eric Pardys/wg/20	Date:	June 13, 2016
cc:	Grant Trigger, Dave Favero, Michael Tomka		
Re:	**Lowering of Outfall 21**		

The following memorandum has been prepared by GHD on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust to summarize the work necessary to implement required remedial activities and to investigate proposed wetland mitigation and floodplain compensation opportunities at RACER's Nodular Industrial Land, Saginaw MI. Based on recent sediment sampling data of the Secondary Pond, additional assessment of the nature/composition of the sediment and alternatives to address metals and PCB contamination is required. To complete the assessment, it is necessary to modify (lower 4 to 6 feet) the existing NPDES permitted outfall (Outfall 21) from the Secondary Pond.

Figure 1 presents a plan and profile drawing of the proposed lowering of Outfall 21. Construction sequencing for the proposed lowering will include:

1. Completing utility locates. At a minimum there is a leachate line located along the north edge of the Secondary Pond (per GM drawings).
2. Assessing the material used in the construction of the Secondary Pond and the slope of the banks. The rest of the construction sequencing assumes the banks/berms of the Secondary Pond were constructed of clay.
3. Installing the lowered discharge pipe at a wide part of the Secondary Pond berm to maintain a secure berm during installation of the lowered outfall pipe. The revised outfall location will discharge around the same location as the existing discharge.
4. Removing concrete debris from the edge of pond and staging for use after the lowered discharge pipe is installed.
5. Using a narrow bucket (3 feet wide), excavate trench on the pond side of the berm (wet side) for placement of 1-foot diameter ductile iron pipe. The excavation will extend to the middle of the berm to maintain a secure berm to hold back the water. Material excavated will be staged nearby in order to be reused as backfill. Note: keep trench box on-Site in the event difficulties arise with the sides of the excavation collapsing.
6. Placing a 1-foot diameter ductile iron pipe, once trench has been excavated to the desired elevation. The inlet of the pipe will be installed with a sealed but removable elbow and with 1-foot sealed but

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removable sections to allow for water to be drawn from the surface of the pond. The outlet end will be installed with a gate valve which will be closed. A riser will be required to be installed to operate the valve at ground surface. A road grade maintenance box will be required to be installed over the riser to protect the riser from vehicle traffic. A small section of pipe will be installed on the downstream end of the gate valve for ease of installation of the downstream pipe when the gate valve is uncovered again. Ensure intake pipe is filled with water to avoid buoyancy issues.

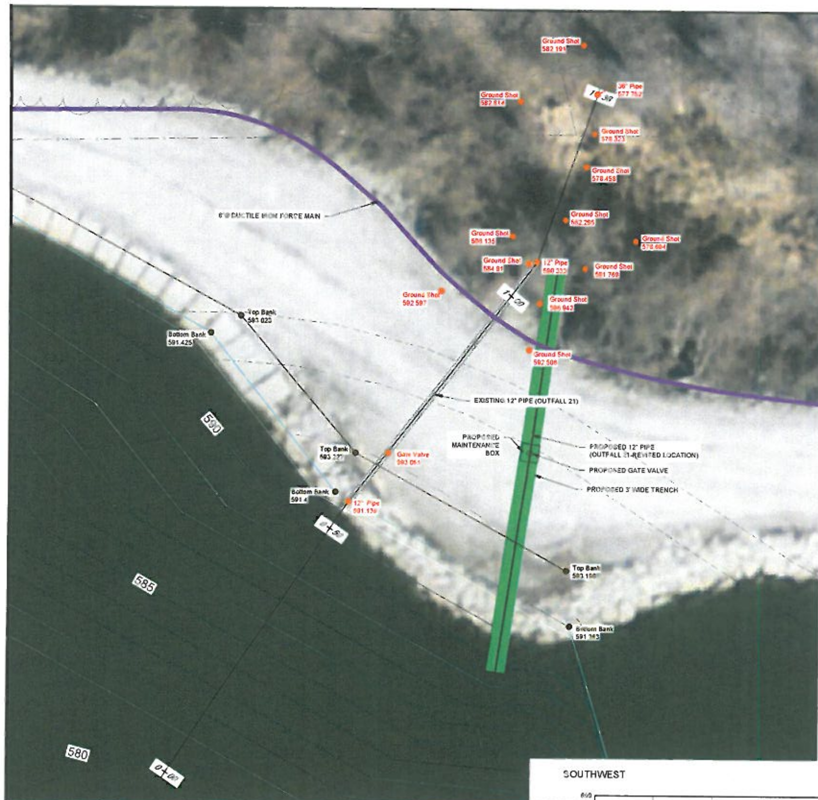
7. Backfilling the 1-foot diameter ductile iron pipe starting at the pond edge with the excavated clay material previously excavated. The material will be mounded at the pond edge and compacted using the excavator bucket. The concrete debris previously removed from edge of the pond will be re-used to provide additional stabilization of the bank. Once sufficient material has been placed at the water's edge, water above the valve will be pumped out discharged back into the pond. The area above the valve will then be backfilled and compacted with clay (in dryer conditions) up to the existing grade.

8. Using narrow bucket (3 feet wide) to excavate trench on the north edge of the berm (dry side) for placement of the remaining 1-foot diameter ductile iron pipe. The excavation will extend to the middle of the berm where the valve will be uncovered. Material excavated will be staged nearby in order to be reused as backfill. Note: keep trench box on-Site in the event difficulties arise with the sides of the excavation collapsing.

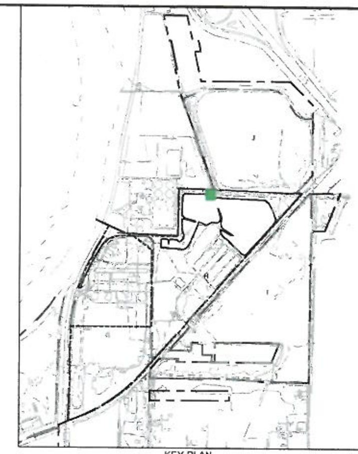
9. Installing the 1-foot ductile iron pipe on the downstream end of the valve.

10. Backfilling and compacting the excavation with the previously excavated material up to grade.

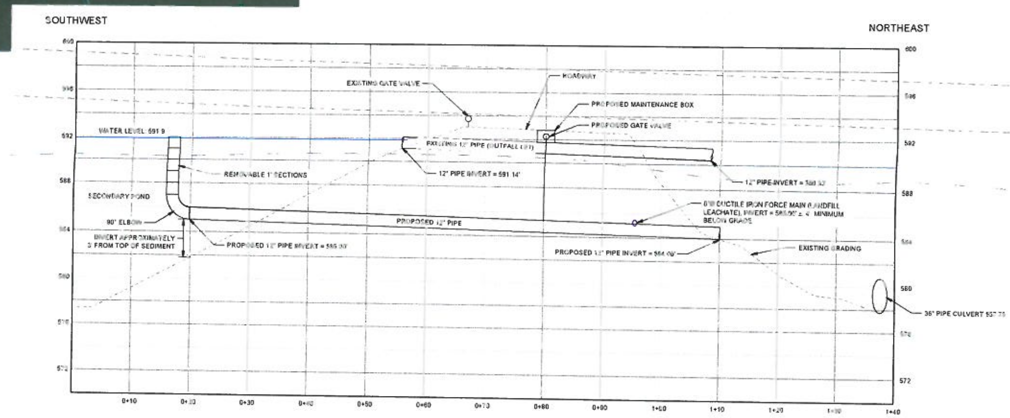
The tentative schedule for completion of the work is sometime the next two weeks.



PLAN



KEY PLAN
SCALE 1" = 2,000'



PROFILE
SCALE HORZ 1" = 10'
VERT 1" = 5'

No	Revision	Date	Initial

LEGEND

- Ground Shot 592.506 — LOCATION SURVEYED OCTOBER 2016 (FT AMSL)
- Top Bank 593.198 — TOP BANK ELEVATION (FT AMSL)
- Bottom Bank 591.363 — BOTTOM BANK ELEVATION (FT AMSL)

NOTES
- POND ELEVATION APPROX. 591.9 ft AMSL (JUNE 7, 2016)
- 100-YEAR FLOODPLAIN ELEVATION AT THIS LOCATION ON THE SAGINAW RIVER IS 589.5 FEET NAVD88

SOURCE
GHD SURVEY, OCTOBER 2015

SCALE VERIFICATION
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY

Approved

DRAWING STATUS

Status	Date	Initial

RACER TRUST
SAGINAW NODULAR INDUSTRIAL LAND
SAGINAW, MICHIGAN

OUTFALL 2 PROFILE

Source Reference: 58502-T02(C10-TRIG003)GN-WA001

Project Manager	Reviewed By	Date
MT	JEP	JUNE 2016

Scale	Project No	Report No	Drawing No
AS SHOWN	58502-T02	MEMO020	figure 1

58502-T02(MEMO020)GN-WA001 JUN 17, 2016