WORK PLAN #2
Outfall Investigation
Riverview-Trenton Railroad Company
Former McLouth Steel Site
18251 West Jefferson Avenue
Riverview, Michigan

February 15, 2024

Prepared For:
Riverview-Trenton Railroad Company
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ASTI Project No. 2-10860

ASTI Environmental

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1.0 Introduction

ASTI Environmental ("ASTI") prepared this Outfall Investigation Work Plan #2 ("Work Plan #2") on behalf of the Riverview-Trenton Railroad Company ("RTRR") as requested by the Michigan Department of Environment, Great Lakes, and Energy ("EGLE"), Waste Management and Radiological Protection Division, in response to high pH liquid being released from an outfall located on the north side of West Jefferson Avenue[1].

The RTRR property is located south and east of West Jefferson Avenue, and is currently the subject of an investigation of groundwater and soils (see Work Plan titled *WORK PLAN, Area of Interest Interim Measures, Riverview-Trenton Railroad Company, Former McLouth Steel Site, 18251 West Jefferson Avenue, Riverview, Michigan* and dated June 30, 2023 and revised August 16, 2023). The location of that investigation is identified as Study Area #1 on Figure 1.

The purpose of this Work Plan #2 is to address the release from the outfall on the north side of West Jefferson Avenue by completing the following.

1. Immediately restrict access to the outfall and associated ditch,
2. Temporarily control migration of groundwater from the RTRR property, and
3. Evaluate options for controlling the release at the outfall.

2.0 Study Area Description

The Study Area to investigate the outfall will consist of the area north and east of West Jefferson Avenue, immediately adjacent to, and north of, the RTRR property. The Study Area is generally flat, slopping slightly from southwest to northeast toward the Monguagon Creek. Much of the Study Area is covered by paving. Refer to Figure 1 for the Study Area.

There are no Areas of Concern or Waste Management Units, as defined by the 1999 RCRA Facility Assessment report completed by EPA, in the Study Area.

Catch basins along the section of West Jefferson Avenue in the Study Area have historically not functioned properly, causing ponding on the curve. In 2022, Wayne County upgraded the storm system in this area. That upgrade included reconstruction of four catch basins (two on the north side of West Jefferson Avenue, and two on the south side of West Jefferson Avenue), installation of an outfall, and construction of a ditch from the outfall to the Monguagon Creek (see Figure 1).

Based on drawings completed for a subsequent installation of a rail crossing, the four catch basins appear to be connected to each other (the southeast basin is connected to the

[1] Refer to email from Alexandra Clark at EGLE to Mark Fletcher at Stephens Environmental LLC dated February 2, 2024.

southwest basin, which is connected to the northwest basin and finally the northeast basin) and the outfall discharge. The new catch basins appear to have standing water six to eight inches below the catch basin grate under all weather conditions.

2.1 Site Hydrogeology

Based on previous studies reviewed, perched groundwater is encountered at 0 to 15 feet bgs. The perched groundwater is approximately 5 feet to 15 feet above typical surface water elevations in the Trenton Channel. In the Study Area, the perched zone generally flows to the east by northeast toward the Monguagon Creek (refer to Figure 1). The perched zone appears to be hydraulically connected to surface water in the Monguagon Creek. An underlying clay layer has been identified in other areas of the RTRR Property, but it is unclear if it is contiguous.

3.0 Completed Work Plan #2 Activities

This section provides a detailed description of activities completed to date to control, manage or measure releases from the outfall.

3.1 Fence Installation

A fence was immediately installed around the area of the outfall and the associated ditch. The fence enclosed the area north of West Jefferson Avenue and east of Payne Avenue.

On February 13th, Wayne County connected the outfall to a pipe that discharges directly to the Monguagon Creek, and backfilled the associated ditch. This removed the potential exposure to the general public. Therefore, the fence will be removed.

3.2 Water Management

To temporary control migration of groundwater from the RTRR property, a temporary sump was installed adjacent to the RTRR property fence, east of the new rail line. The sump is operated manually. All liquids removed from the sump are being placed in a frac tank, pending characterization and off-site disposal. The frac tank was provided through Clean Harbors Environmental, who will manage the characterization and disposal. Clean Harbors is licensed to dispose of hazardous and non-hazardous wastes.

The sump recharges quickly, even during periods of no precipitation, indicating that it may be intercepting groundwater. However, there is no discernable impact on the outfall when the sump is pumped.

The southeast catch basin was temporarily pumped approximately once per day. All liquids removed from the sump were placed in a frac tank, pending characterization and off-site disposal. The flow from the outfall does cease or reduce when the southeast catch basin is pumped, suggesting that the water discharge at the outfall is from the new storm sewer system. Based on observations during pumping, it also appears that the storm system has a backpitch.

The southeast catch basin was inspected following pumping, and groundwater was observed to be leaking into the catch basin from the connection between the cap and structure. It appears that the structure is compromised because the cap was not property sealed when installed. Installation of a temporary hydraulic patch was unsuccessful due the high flow rate.

4.0 Proposed Work Plan #2 Activities

This section provides a description of each activity proposed to control, manage or measure the outfall in the Study Area.

4.1 Water Management

The sump will continue to be pumped to the frac tank until repairs to the new storm system can be completed (see below). Clean Harbors Environmental will manage the characterization and disposal of pumped liquids.

The southeast catch basin will no longer be pumped.

It is anticipated that no surface water will need to be removed from the Study Area or West Jefferson Avenue during this period.

4.2 Investigation of Storm System and Piping

RTRR will contract with an engineering firm to survey the invert and rim elevations of the storm system piping and catch basins. This survey will include the manhole in West Jefferson Avenue that appears to have a storm sewer connection between the northwest and southwest catch basins. It is assumed that this survey will not require Wayne County approvals.

The survey will also include an internal inspection of the storm sewer connection between the northwest and southwest catch basins to determine if the lateral connection, indicated on some drawings, exists. This inspection of the connection will require approval from Wayne County and/or the Road Commission, and will only be completed if those approvals are provided.

RTRR will contract with an engineering firm to survey along the RTRR fence line and within the area of the new rail line west of the fence line, to identify any subsurface piping that may have been compromised during the construction activities in the Study Area.

During the work plan being implemented on the RTRR property, elevations were collected for static water in groundwater wells, surface water, standing water in the catch basins and the discharge from the outfall. These will be used to better understand water flow beneath ground surface.

4.3 Storm System Repair

Because it appears that the continual flow at the outfall is due to infiltration of groundwater into at least the southeast catch basin, RTRR will request that Wayne County repair the structure. Following this repair, and any other repair to the storm system in the Study Area deemed necessary by Wayne County, a reassessment of the outfall flow will be conducted.

5.0 Site Health and Safety Plan

ASTI developed a Site-Specific Health and Safety Plan (SHSP) for the RTRR site dated April 1, 2019 for a previous sampling event, and approved by EGLE, and will use that SHSP for this project. The plan lists a safety coordinator, emergency telephone numbers, directions to the nearest emergency care facility, and emergency procedures. Field personnel will be required to review, sign and date the SHSP before beginning any site activities within each project phase. A copy of the SHSP was provided to EGLE, and additional copies can be provided on request.

6.0 Project Staff

The following is a list of staff that will be involved with this outfall investigation. This list is an update of the one found in the Site-Specific Health and Safety Plan.

Project Manager: Mr. Thomas Wackerman

Safety Coordinator: Mark Fletcher

Project Staff: Mr. Jeremy Efros, CPG, Mr. John Schuitema, Ms. Kera Sharpe, and Ms. Emily Manetz.

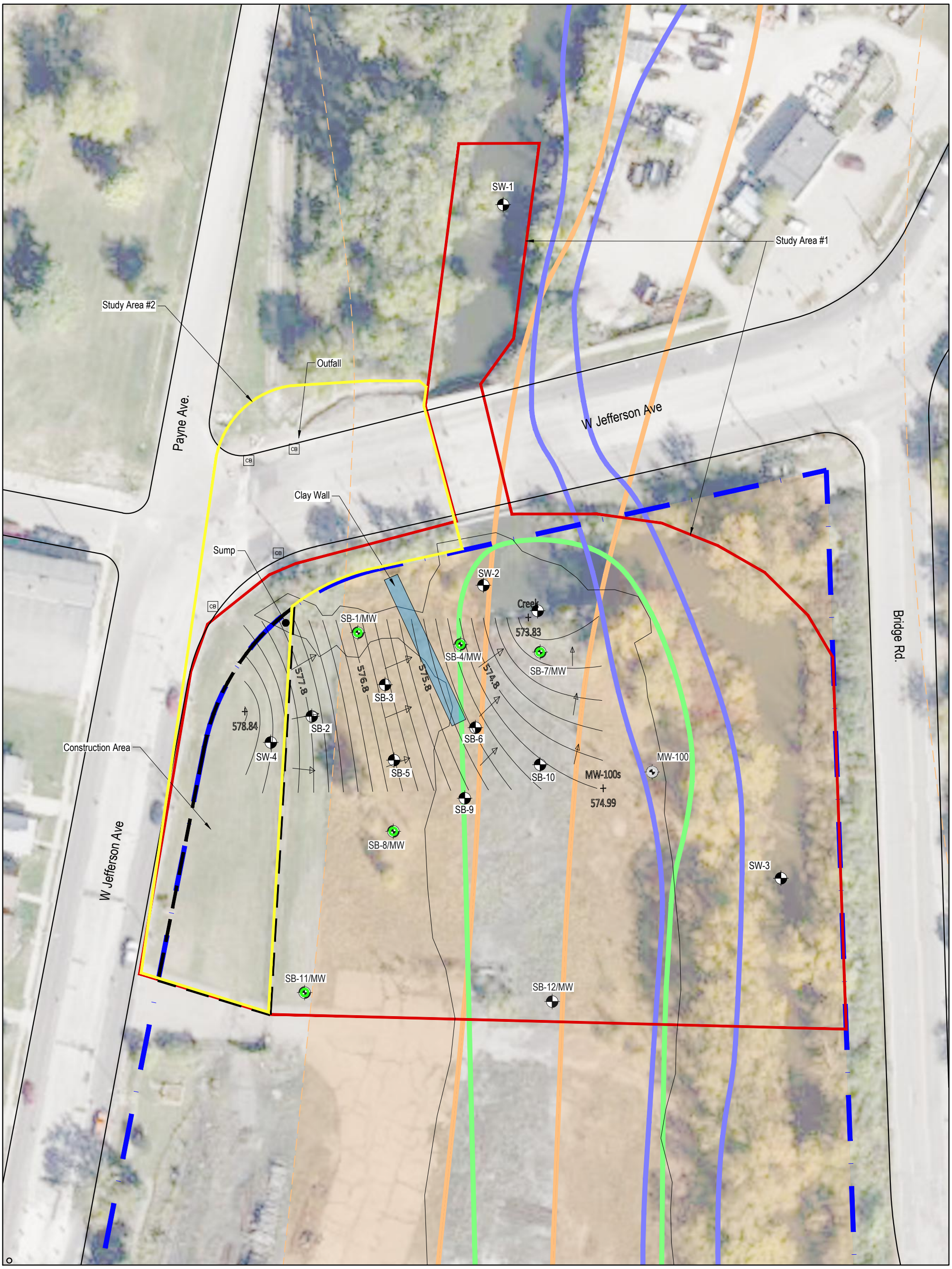
7.0 Schedule

The project activities will be scheduled immediately following the approval of this Work Plan #2. The Investigation of Storm System and Piping tasks can be conducted within 30 days of work plan approval. ASTI will notify EGLE in writing at least 14 calendar days prior (or earlier) to beginning field work.

Attachment A
Figures

Work Plan #2
Area of Outfall Investigation

Y:\Project Files\Current and Closed\10000-10999\10800-10899\10860 McLouth RTRR Property\2-10860 North End Investigation\CAD\2-10860.dwg; 2/14/2024 11:36 AM;



GRAPHIC SCALE

0 30 60 120

1 inch = 60 ft.
Paper Size = (11x17)

LEGEND

- Property Line
- Existing Monitoring Well Location
- Proposed Soil Boring Locations
- Proposed Soil Borings Locations with future Conversion to Monitoring Wells
- Historical Wetlands (1906)
- Historical Wetlands (1936)
- Trench Location
- Groundwater Flow Direction
- CB Catch Basin
- Historic Shoreline (1906)
- Historic Shoreline (1936)
- Historic Shoreline (1952)
- Study Areas
- Construction Area

N

18251 West Jefferson Ave

Riverview, MI

ASTI Environmental

Client: Riverview-Trenton Railroad Company

Figure 1 - Study Area #2

ASTI Project 2-10860, JRN, February 14, 2024