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I. INTRODUCTION

The purpose of this report is to describe, evaluate, and document the unpermitted discharge into the Paw Paw River.

II. BACKGROUND

The City of Benton Harbor is located in Berrien County, Michigan. The Benton Harbor-St. Joseph wastewater treatment plant (WWTP) is located at 269 Anchors Way, Saint Joseph, Michigan 49085. Wastewater is delivered to the treatment facility from the City of Benton Harbor, City of St. Joseph, Benton Charter Township, St. Joseph Charter Township, Lincoln Charter Township, Royalton Township, Village of Stevensville, and Village of Shoreham. The Cities of Benton Harbor and Saint Joseph are authorized the by Michigan Department of Environment, Great Lakes, and Energy (EGLE) to discharge from the WWTP to the St. Joseph River, with the provisions set forth in the National Pollutant Discharge Elimination System (NPDES) Permit No. MI0022322, which has an effective date of May 1, 2019, and an expiration date of October 1, 2022.

III. INSPECTION ACTIVITY SUMMARY

On Friday, August 26, 2022, EPA representatives (we) arrived at the City of Benton Harbor and convened at 699 Riverside Ave, Benton Harbor, Michigan alongside the Paw Paw River, with representatives from the City, County Health Department, and EGLE. The following is a timeline of events that was provided to EPA representatives by State, County, and City staff after the discharge to the Paw Paw River had been discovered:

- Thursday, August 18, 2022, EGLE received a complaint regarding a strong sewage odor coming from a ravine in Benton Harbor. In response to the complaint, EGLE contacted the County Drain Commissioner and County Health Department.
- Friday, August 19, 2022, the County Health Department confirmed that there was a discharge of raw sewage to the Paw Paw River.
- Saturday, August 20, 2022, Stevens Street lift station pumps were found to be inoperable. Both pumps were removed and sent out for repairs.
- Sunday, August 21, 2022, at approximately 10:30am EST, it was confirmed there was a major leak in the sewer system at the ravine in Benton Harbor. A drinking water line was also found to be discharging water to the ravine. The ravine connected to the City's stormwater conveyance system, which resulted in the discharge of raw sewage to the Paw Paw River at the Stevens Street lift station.
- Monday, August 22, 2022, EGLE arrived onsite and met with the County Health Department, the City's Public Works Department, and contractors from F&V Operations at approximately 9:45am EST. At approximately 10:00am EST, the City of Benton Harbor posted a public notification on the City's website, contacted 5 different media outlets, and put in a no-contact order for a one mile section of the Paw Paw River, prior to its connection with the Saint Joseph River. Later in the afternoon, around 40 signs were posted around the portion of the Paw Paw River with the no-contact order and the Ravine (Photo: BH008). A bypass pump was installed at approximately 3:00pm EST and

began pumping from the stormwater conveyance line to the sanitary sewer to prevent any additional flow of raw sewage entering the Paw Paw River.

- Tuesday, August 23, 2022, sandbags were installed at the storm drain outlet pipe to the Paw Paw River at approximately 8:00am EST. EGLE's Surface Water Division, along with their EGLE's Permits Division arrived onsite and performed a sampling event at approximately 10:30am EST. Samples were taken 100 yards upstream and 100, 200, and 300 yards downstream from the access point of the raw sewage to the Paw Paw River. Samples were analyzed by Great Lakes Scientific lab.
- Wednesday, August 24, 2022, contractors cleaned approximately 600 feet of sewer lines to remove believed blockage, but no blockage was discovered.
- Thursday, August 25, 2022, a manhole within the sanitary sewer system at the bottom of the ravine was opened around 8:00am EST to drain sewage from the ravine. At 9:30am EST a bypass pump was installed at the ravine to prevent further sewage from discharging through the line break. Excavation of the collapsed pipe began around 1:00pm EST.
- Friday, August 26, 2022, the collapsed sewer pipe in ravine is exposed at 11:00am EST. EPA representatives arrived onsite at 1:00pm EST.

The following information was confirmed and documented by EPA inspectors on Friday, August 26, 2022:

- Flow through the stormwater outfall located at 699 Riverside Ave, Benton Harbor, Michigan, had ceased due to installation of sandbags and bypass pump diverting flow to the sanitary sewer.
- The majority of sewage that had collected in the ravine had been drained into the sanitary sewer. There are no finalized plans by the City of Benton Harbor for how to clean up the remaining sewage in the ravine.
- The collapsed sewage pipe in the ravine was excavated by contractors (Abonmarche) and a temporary replacement pipe was being installed. A complete replacement is necessary and will be installed at a later date.
- A second bypass pump was installed to divert sewage around the collapsed pipe and prevent it from leaving the sewer system.
- Signs had been posted by the City of Benton Harbor warning residents of the potential harm and exposure to E.coli.
- An active discharge of water coming from an assumed drinking water line was observed.
- Additional E.coli samples were taken daily by the County Health Department who instructed the City that daily samples were required.

The duration for which the sewer pipe was broken and discharging into the ravine is still currently under investigation. EGLE estimated the current rate of discharge to the ravine to be approximately 40-50 gallons per minute from the sewage pipe. EGLE estimated an additional 10 gallons per minute of water was being added to the ravine from the leaking drinking water line.