



Groundwater & Environmental Services, Inc.

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Williamsville, NY 14221

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April 7, 2022

Ms. Megan Kuczka
Environmental Program Specialist 1
New York State Department of Environmental Conservation – Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

**Re: Work Plan for Sump 1-3 Conveyance Line Excavation and Replacement
Cherry Farm Site (NYSDEC Site No. 9-15-063)
River Road Site (NYSDEC Site No. 9-15-031)
4100 River Road, Tonawanda, New York 14150
File No. 442205**

Dear Ms. Kuczka:

Groundwater & Environmental Services, Inc. (GES), on behalf of the Potentially Responsible Parties Group (PRP Group) of Honeywell International Inc. and Niagara Mohawk Power Corp. d/b/a National Grid, is submitting this Work Plan to describe upcoming work to excavate, replace, and reconnect the header pipe from sump 3 to the on-site treatment facility. The work will be completed in accordance with the Excavation Work Plan that is included in the *2017 Post-Remedial Operations, Maintenance, and Monitoring Manual* (OMM Manual) and a Site-specific Health and Safety Plan. This *Sump 1-3 Conveyance Line Excavation and Replacement* work plan describes the specific job steps associated with the sump 3 line replacement work. Please refer to the OMM Manual for general site information.

GES intends to perform the work detailed below in spring of 2022.

Excavation

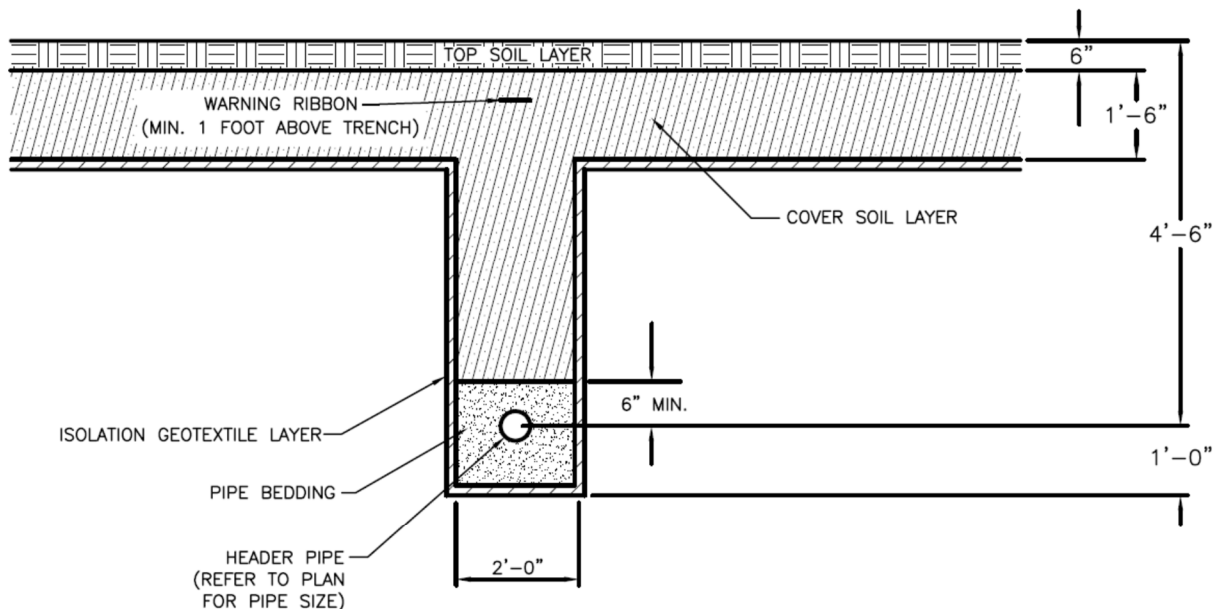
Excavation will be targeted at the Sump 1-3 header pipe between Sump 3 and the groundwater treatment plant to restore extracted groundwater flow from Sumps 1-3 as shown on the **Excavation Area Map**. On-site testing in late 2021 indicated that the header pipe is operational between Sump 1 and Sump 2 and between Sump 2 and Sump 3. The separate Sump 4 conveyance line was previously replaced in 2019

Excavation will begin in the utility trench north of the Sump 4 piping to allow evaluation of the Sump 1-3 header pipe condition in both directions. Excavation and line replacement will advance in each direction (north and south) from the initial investigation area (see the **Excavation Area Map**) until reaching Sump 3 to the north and/or the treatment building to the south, or until the line is open enough to allow jetting the line to clear remaining scale build-up.

Initial excavation will be with a smooth trenching bucket to remove the topsoil and sod in a manner to allow reuse after backfilling. Sod and topsoil will be staged on poly sheeting and kept away from other materials to allow for re-use. Fill soils below the topsoil will then be removed and staged on poly sheeting to allow for re-use as well. All removed/staged materials will be stockpiled no closer than 4 feet from the edge of the excavation.

System piping will then be exposed in the header pipe trench using the smooth bucket with a spotter used to avoid damage to the system water and electrical plumbing. Based on the Record Drawings and previous excavation activities, the header pipe is expected to be located at approximately 4 ½ feet below ground surface and installed in pipe bedding materials below the cover soil layer as shown in **Figure 1** below. All excavated material will be placed no less than 4 feet away from the edge of the excavation. Silt fence will be installed between the excavation and the Niagara River whenever working within 50 feet of the river, or surface gradient makes run-off entering the river possible. Silt fence will be installed prior to the start of excavation, and will be periodically inspected to ensure effectiveness. Corrective actions will be implemented immediately in the case of any breaches or short circuiting of the silt fence. Bedding materials from the excavation will be segregated and re-used for backfill once the Sump 1-3 header pipe has been replaced.

Figure 1 – Header Bedding Detail As-Built



NOTES:

1. MAINTAIN A MINIMUM OF 6 INCH CLEARANCE BETWEEN ADDITIONAL PIPES AND 3 INCH BETWEEN THE PIPE AND TRENCH SIDEWALL.
2. WRAP ALL BURIED CONVEYANCE LINES WITH 14 GAUGE SOLID CORE COPPER WIRE. MAINTAIN CONTINUITY BY SPLICING JUNCTIONS. TERMINATE WIRES AT GROUND SURFACE NEAR VAULTS OR SUMPS.

Because the system piping was installed in pipe bedding material and was subsequently surrounded by the cap isolation geotextile layer, the excavation activities are not expected to effect the cap or encounter any waste materials (impacted soils). During excavation activities, if



any waste material or the cap isolation geotextile layer is encountered, work will be halted and conditions will be evaluated before proceeding. Visual, olfactory, and instrument-based (e.g. photoionization detector [PID]) soil screening will be performed by a qualified environmental professional or person under their supervision during all excavation activities.

There is no expectation of encountering contaminated soils that will require off-site disposal during this work. Excavation activities should be limited to cover soil and pipe bedding material only as all excavations will be conducted within the cover soil or system pipe bedding material of the engineered site cap.

If fill materials are needed from outside sources during implementation of this work, a source will be established before the work begins.

Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be utilized. The CAMP specifics are located in section 14 of the Excavation Work Plan in the OMM Manual.

Line Replacement

Following removal of the Sump 1-3 header piping, the line will be replaced with 2-inch diameter high density polyethylene (HDPE) pipe of the same specifications as the existing pipe. Pipe connections will be made by butt welding or electrofusion following the pipe manufacturer's specifications. Due to the constraints of the utility trench width, pipe connections will be performed at ground level and the pipe will then be lowered into the trench whenever possible. Cleanouts will be installed on to the header pipe to assist with future line flushing activities. Cleanout fittings at the surface will be completed with a blank flange and the cleanout fitted with a 12-inch manway for access. The system will be leak checked with compressed air prior to backfilling. To facilitate maintenance moving forward, cleanouts will be installed along the operational header pipe between Sump 3 and Sump 2 and between Sump 2 and Sump 1.

Additionally, if necessary, any metallic fittings on the individual line between Sump 3 and the HDPE header line will be replaced in kind. However, sweep elbows will be used in place of 90 degree elbows where possible to facilitate future line cleaning activities.

Site Restoration

Following line repair the excavation will be backfilled to original grade with the removed materials. Cleanouts will be installed in road boxes set in concrete. The removed sod will be reinstalled to complete restoration. Cover vegetation will be monitored to ensure that it flourishes, and if needed bare spots will be seeded following original seed mix specifications to ensure proper ground cover.



Waste Disposal

All removed piping from the Sump 1-3 header line replacement activities will be staged on poly sheeting and covered with poly sheeting to prevent runoff. Samples will be collected and analyzed for waste characterization and disposal. Details of plans for piping disposal and the proposed waste facility will be provided to the NYSDEC before removal of the pipe from the site. Poly sheeting used to cover bedding materials and sod will be disposed of as general refuse because it will not contact any impacted waste materials.

Work Oversight and Documentation

- GES will retain a qualified contractor to perform the work. The contractor will use staff that have OSHA 40 Hour Hazwoper training and documentation of training will be submitted prior to work commencement. The Contractor will prepare a proposal that outlines work steps, staffing, and health and safety procedures that meet or exceed requirements specified by OSHA and GES.
- Contractor performing the work will provide a competent person for overseeing the trenching activities as well as providing atmospheric monitoring and other safety equipment as needed to ensure worker safety when working within the trench.
- GES has been retained by the PRP Group to provide full-time construction observation during the project to ensure work is done in compliance with the work plan as well as OSHA and GES health and safety policies.
- GES will provide the New York State Department of Environmental Conservation (NYSDEC) with updates during all planning and construction activities, and notify the department of any deviations from the work plan.
- After the completion of this field work, GES will provide a summary report to document the work completed.

If you have any questions, please contact Thomas Palmer at (800) 287-7857 (ext. 4346).

Sincerely,

Groundwater & Environmental Services, Inc.

Thomas Palmer
Sr. Project Manager

Genevieve F. Bock, P.E.
NE Region Engineering Manager



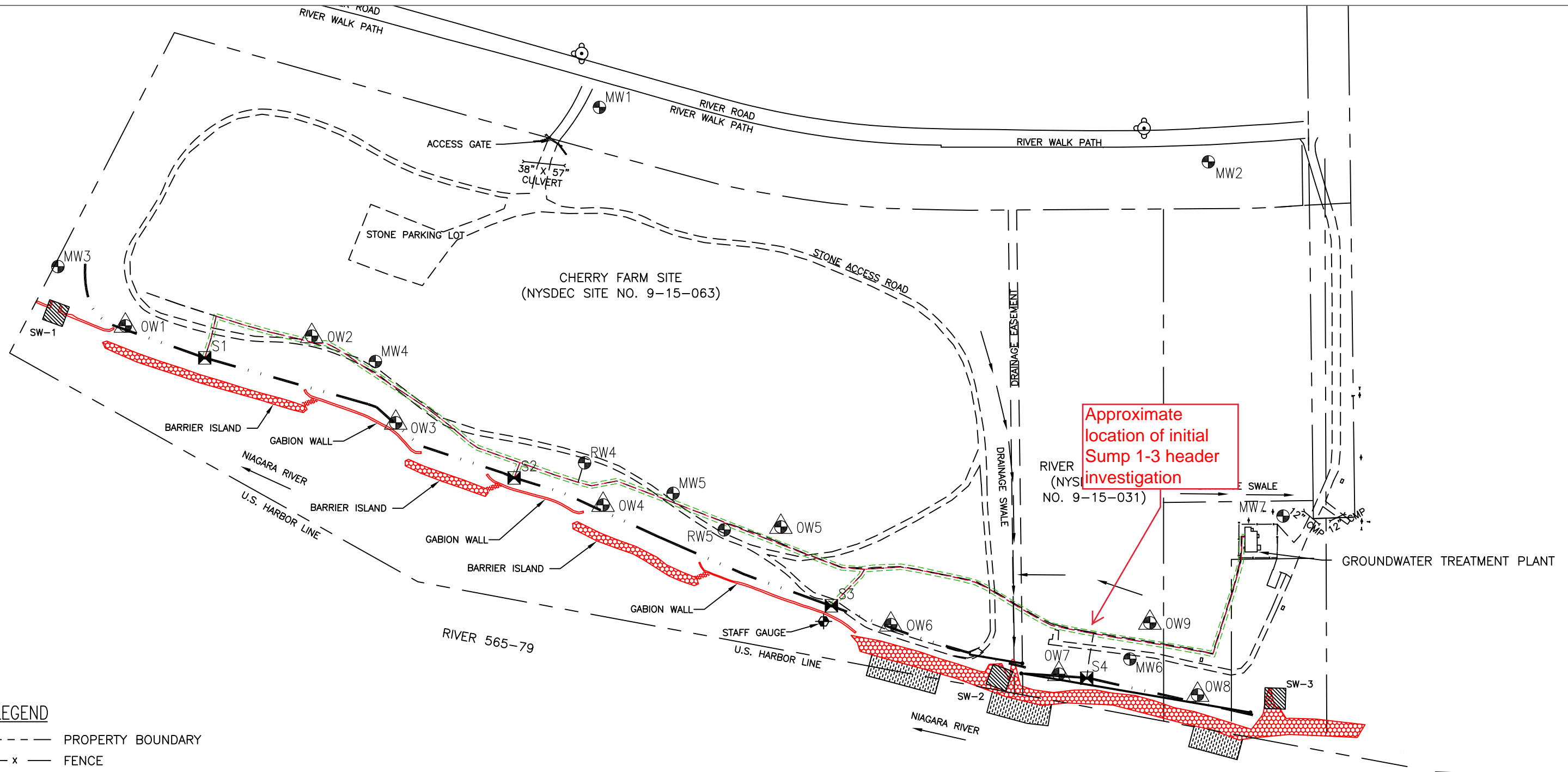
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- LEGEND**
- PROPERTY BOUNDARY
 - x - FENCE
 - ☒ TRENCH SUMP
 - ⊕ MONITORING WELL
 - ⚠ OBSERVATION WELL
 - . - - SHALLOW GROUNDWATER TRENCH
 - - - - GROUNDWATER CONVEYANCE PIPING
 - - - - SUMP 1-3 GROUNDWATER COVEYANCE LINE
 - - - - EXTENT OF EXCAVATION

Approximate location of initial Sump 1-3 header investigation

Excavation Area Map (Sumps 1,2,3)

Cherry Farm (River Road Site)
4100 River Road
Tonawanda, New York

Drawn
W.G.S.
Designed

Approved

Date
3/15/22
Figure