

### **VIA EMAIL**

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GEOTECHNICAL ENVIRONMENTAL ECOLOGICAL WATER CONSTRUCTION MANAGEMENT

GZA GeoEnvironmental of NY 300 Pearl Street Suite 700 Buffalo, NY 14202 T: 716.685.2300 F: 716.248.1472 www.gza.com August 9, 2023 File No. 21.0056855.20

Mr. Benjamin McPherson, P.E. New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation 700 Delaware Avenue Buffalo, New York 14209 via email: benjamin.mcpherson@dec.ny.gov

Re: Huntley Power South Parcel Proposed Remedial Bench Study Work Plan Brownfield Cleanup Program Site Number C915337 (Site) Tonawanda, New York

Mr. McPherson:

GZA GeoEnvironmental of New York (GZA), on behalf of Huntley Power, LLC (Huntley) submits this proposed scope of work for a remedial bench study. Phytoremediation was initially proposed to address arsenic in Site groundwater. Analytical results, groundwater quality data, and hydraulic conductivity testing conducted in winter 2023 (submitted under separate cover<sup>1</sup>) suggested conditions were not conducive for phytoremediation. Arsenic was detected in the groundwater analyzed from five of the eight monitoring wells (CCR-2, -3, -7, -8 and -10) sampled during the event and was primarily in the dissolved state in four of those wells (CCR-2, -3, -7, and -8). In addition, hydraulic conductivity testing indicated the soils are highly conductive, which reduces the potential for suitable results from phytoremediation.

Additionally, NYSDEC indicated further characterization of the eastern soil berms is required prior to their usage as backfill, as proposed in the draft Remedial Action Work Plan (RAWP).

The two objectives of this proposed work plan are:

- 1. to conduct a preliminary evaluation of a chemical fixation remedy for preventing arsenic in Site groundwater; and,
- 2. to further characterize the eastern soil berms to determine appropriate potential uses as backfill during Site remedy implementation.

#### Task 1: Material Sampling and Arsenic Fixation Bench Study

GZA and Huntley's environmental subcontractor, Sevenson Environmental (Sevenson), will conduct test pit excavations to collect sufficient volumes of soil material to conduct an arsenic fixation bench study. Test pit locations will be proximate to the monitoring wells of

<sup>&</sup>lt;sup>1</sup> Revised Remedial Investigation Report, Huntley Power South Parcel, Tonawanda, New York, NYSDEC BCP Site Number C915337 and dated April 19, 2023



concern/equalization basins and at depths where arsenic concentrations were identified exceeding commercial use threshold values during the Remedial Investigation (RI). GZA notes the protection of groundwater soil cleanup objective (SCO) is applicable at the Site. Material will be collected from approximately four test pits completed proximate to the equalization basins (**Figures 5A through 5D**). Representative composite samples of the unsaturated material will be collected in two-foot intervals to an approximate depth of 10 feet below ground surface (bgs), resulting in an anticipated five, 5-gallon containers. Representative composite samples of the saturated soil material will be collected in five-foot intervals from approximately 10 to 20 feet bgs, resulting in an anticipated two, 5-gallon containers. Each container will be filled with a composite of representative material from the specific two to fivefoot sections (i.e. 0-2 ft bgs, 2-4 ft bgs, ...10-15, 15-20 ft bgs) up to a depth of 20 feet bgs from the four test pit locations. GZA will also collect companion duplicate samples for on-site archiving, in case additional material is required for analysis or testing purposes. Bulk samples will be concurrently collected from the same horizons and sampling frequencies and submitted for analysis for arsenic for comparative purposes. Additionally, GZA will collect and submit groundwater from the monitoring wells of concern, should the remedial vendor request such to evaluate the additive/remedy.

GZA will submit the samples and other available site characterization information such as the Remedial Investigation Report and annual groundwater elevation information gathered under this program to up to three appropriate remedial vendors to conduct a site-specific arsenic fixation laboratory bench study using that vendor's product, method and/or process. The remedial vendor(s) will test the efficacy of their product/process on fixating dissolved arsenic and preventing leaching of arsenic to groundwater using the provided samples. The remedial vendor(s) will evaluate arsenic fixating products/processes and make recommendations on how to apply their product/process to reduce arsenic levels in groundwater. The vendor(s) will also evaluate potential unintended consequences or impacts of the use of their product or process in this application. If the results of the bench study are favorable, GZA will select a preferred vendor and continue to work with the remedial vendor to design a work plan for implementation of an arsenic remedy, to be incorporated into the Remedial Action Work Plan, for submittal to NYSDEC.

# Task 2: Eastern Berm Characterization

As requested by NYSDEC, the eastern berms require further characterization to evaluate for potential use as backfill during Site remedy implementation. GZA proposes to conduct five test pits within the berms to depths of approximately six feet (anticipated depth of berm bottom). Vertically composited samples will be collected from each test pit and analyzed for previously established Remedial Investigation<sup>2</sup> "Focused List" parameters: semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs). As arsenic is the primary contaminant of concern, GZA proposes this limited list of parameters for initial screening/characterization of the berm material. Based on the estimated volume of over 12,000 cubic yards, this initial screening will be used to determine if, and how the material can be reused on site. After this initial assessment, additional analysis may be required depending on the determined disposition of the material.

## Task 3: Reporting

GZA will provide a letter report summarizing the work conducted and will include supplementary figures, tables, and collected data. Information obtained by this assessment is anticipated to further inform a site remedy and will also be incorporated into the revised RAWP.

<sup>&</sup>lt;sup>2</sup> Remedial Investigation Work Plan, Huntley Power South Parcel Site (C915337), 3500 River Road, Town of Tonawanda, New York 14150 and dated July 29, 2020 (Focused List parameters indicated on page 11).



Huntley Power South Parcel Site BCP Site C915337 August 9, 2023

## Schedule

This scope of field work is anticipated to take two field days. Work will be scheduled promptly following NYSDEC approval. NYSDEC will be appraised of that schedule a minimum of three days prior to mobilization. The initial bench laboratory study by the potential remedial vendor is anticipated to take four to six weeks to complete. Results will be provided to NYSDEC following report completion and internal review.

Thank you for your time and consideration. If you have any questions or require additional information, please contact Thomas Bohlen at (716) 570-5983.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

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Cc: Steven Berninger (NYSDOH) Gregory Brown (Brown Duke & Fogel, P.C.) Tony Shea (Huntley Power LLC) Michael Sommer (Huntley Power LLC) George Streit (Huntley Power LLC)

Attachments: Figures 5A through 5D – Proposed Test Pit Locations/Elevated Arsenic Locations in Soil from Remedial Investigation

Daniel J. Troy, P.E. **Consultant Reviewer** 







