Former Marble Quarry Landfill **109 Marbledale Road** Tuckahoe, New York

NYSDEC Brownfield Cleanup Program #C360143

Community Meeting # 11

May 24, 2017



HydroEnvironmental SOLUTIONS, INC.

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Source Area Soil Stockpile Removal

- CAMP monitoring was in place during all invasive earth moving activities on-site.
- As of April 26, 2017, all source areas, Source Area 1, 2, 3, 4, 6, 7, 8, 9, 10, 11 and 12 have been removed and backfilled. Based on end-point sampling results (elevated copper concentrations) additional soil may be excavated from SA-11 and SA-1A.
- Any soil stockpiles that remained from source area excavations were trucked out to either Bayshore Recycling located in Keasbey, New Jersey or IESI PA Bethlehem Landfill Corporation located in Bethlehem, Pennsylvania.
- Soil was removed by trucks on April 27th, May 2nd, and May 3rd.

Soil Stockpile Removal





Ground Water Sampling

- From May 4th, 2017 May 9th, 2017 HES conducted baseline groundwater low-flow sampling from OW-1, BW-1, OW-2, BW-2, OW-3, BW-3, and MW-8.
- Samples were sent to a NYS certified laboratory for analysis.
- Results were received. Results from these baseline samples will be compared to future samples in order to observe any changes in contaminant levels during RIC (Rapid Impact Compaction) and pile drilling work.

Low Flow Groundwater Sampling



Vapor Well Installation

- From May 9th, 2017 May 12th, 2017 eleven vapor point wells were installed by Soil Testing.
- HES sampled these wells using 6 liter Summa canisters that were sent to a NYS certified laboratory for analysis. Results from these baseline samples will be compared to future samples in order to observe any changes in vapor concentrations during RIC and pile drilling work.
- In addition, these wells are monitored during daily invasive work.

Vapor Well Installation



Vapor Well Monitoring

- Each day during RIC and pile drilling work, HES monitors all available vapor wells and MW-1, MW-3, MW-4, MW-5, MW-7, MW-9, OW-2, and SVE-1 using a PID, FID, and Four Gas meter.
- Each well is monitored a minimum of once every 3 hours. The data is observed throughout the day in order to look for any changes in vapor levels during RIC and pile drilling work.
- In addition, this data is logged daily and shared with the NYSDEC and HDR.

Vapor Well Monitoring



RIC (Rapid Impact Compaction)

- As of May 16, 2017 GeoStructures, Inc. has begun RIC work on-site.
- CAMP Stations are setup and used to monitor the work area daily.
- Vapor monitoring is performed at the planned vapor wells and monitoring wells daily, a minimum of once per every three hours while work continues.

RIC (Rapid Impact Compaction)



Pile Drilling

- As of May 15, 2017 EBC (Environmental Bulkheading Corp.) has begun drilling the piles for the hotel using the mud rotary drilling method.
- CAMP Stations are setup and used to monitor the work area daily.
- Vapor monitoring is performed at the planned vapor wells and monitoring wells daily, a minimum of once every three hours while work continues.
- An on-site retention basin is used by EBC to recirculate and contain all groundwater and drilling fluids that surface during the process.

Pile Drilling



Frac Tank

- On May 12th, 2017 an effluent sample from the Frac Tank on-site was collected and sent for laboratory analysis. The water in the tank was circulated through a closed loop carbon filtration system for over 48 hours before being sampled.
- Results are being reviewed by the NYSDEC to determine if the filtered water can be discharged on-site or if it must be disposed of off-site via vacuum tanker truck.

Frac Tank Filtration System



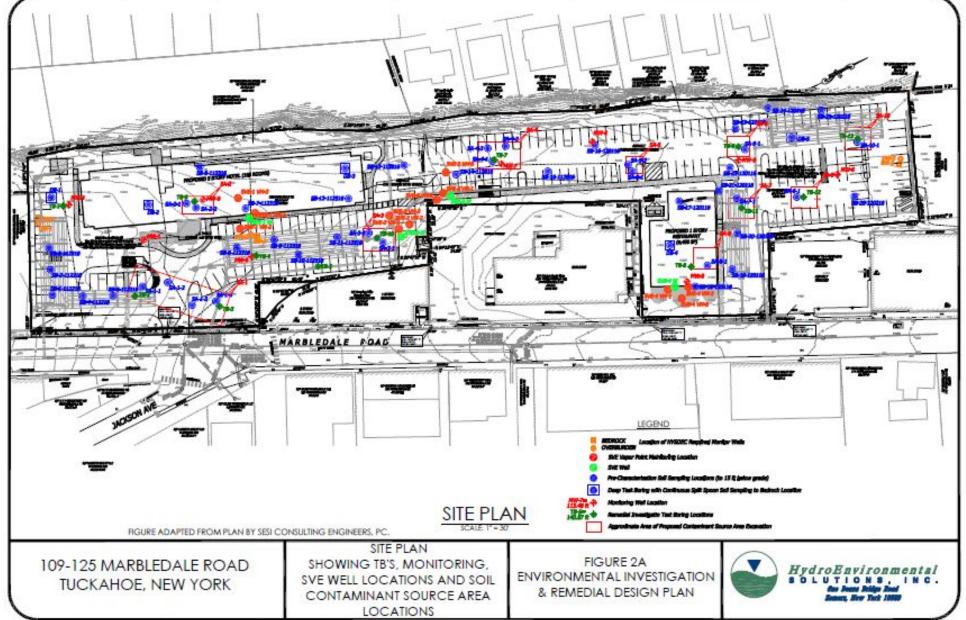
Aerosol Canisters

- An EPA ID# was attached to the site for future disposal of the collected canisters.
- Canister disposal was delayed due to an incorrect address issued to the site; an address located across the street and not the site itself.
- Canisters will likely be disposed of at a licensed off-site facility in the next several months. In the meantime they are staged on-site in 55 gallon drums and multiple covered dumpsters.

What's Next?

- Continue and finish RIC work
- Continue to install Piles until complete
- Once RIC and Pile work complete, start foundation work
- Finalize SSDS and SVE system designs
- Place item 4/QP across site along with crushed stone to act as a temporary cap. This will be completed after stormwater retention basins are installed.





Thank You for Attending the Tuckahoe Community Meeting Related to the Marbledale BCP Site!

Questions?

