NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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July 19, 2016

Dear Concerned Citizen:

Thank you for your letter concerning the former Marble Quarry Landfill Brownfield Cleanup Program (BCP) site located in the Village of Tuckahoe. We appreciate your interest in the volunteer's proposed Remedial Action Work Plan (RAWP) to address the site contamination.

On March 11, 2016, the Department of Environmental Conservation (Department) released the proposed RAWP for public review and comment for which the comment period ended on April 24, 2016. The Department also held a public meeting on April 14, 2016 to present the volunteer's proposed RAWP and to give the public opportunity to ask questions and comment on the proposed plan.

The Department's technical staff have completed review of the comments received from the public and various stakeholders. Based on that review, three major modifications were made to the volunteer's proposed RAWP. These changes are reflected in the final Decision Document (DD) issued by the Department, and include:

- the addition of a soil vapor extraction (SVE) system to the site remedy which will capture and treat soil vapor on-site thereby preventing this vapor from migrating off the site and impacting adjacent properties. This will allow any vapors to be collected at the source and to be treated before the air is discharged;
- (2) the installation of additional groundwater monitoring wells prior to construction to allow implementation of a construction monitoring plan to monitor site groundwater and bedrock groundwater to ensure groundwater contamination does not migrate off-site during remediation and site development;
- (3) proper characterization of soil to be regraded or excavated prior to initiation of these activities.

The Department has also identified over three additional acres of the former Marble Quarry landfill as a potential ("P") inactive hazardous waste disposal site. This will require an investigation of the remaining portions of the landfill, to be performed by the parties responsible for disposal at the site or, if such parties decline or are not viable, to be performed by the State.



With the required modifications to the proposed RAWP the Department and the New York State Department of Health have concluded that the selected remedy will protect public health and the environment from contaminants present at the site, for the intended use of the property.

I have attached for your convenience and further clarification, a document containing specific questions received on the proposed RAWP and the Department's respective responses to the questions.

Thank you for your interest in this site.

Sincerely,

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George W. Heitzman, P.E. Director, Remedial Bureau C Division of Environmental Remediation

Attachment

Questions and Answers Concerning the NYSDEC's Selected Remedy for the Former Marble Quarry Landfill Brownfield Site

In response to comments raised by the community, the New York State Department of Environmental Conservation (DEC) has prepared the following summary of how the questions and concerns are addressed by the final site remedy.

Questions/Concerns Raised during the BCP site Comment Period that will be addressed by the "P" site investigation

Question/Concern 1: The entire quarry should be declared an inactive hazardous waste site.

- Answer 1: The remainder of the quarry beyond the BCP site has been designated a potential ("P") inactive hazardous waste disposal site. This designation will allow DEC to pursue potential responsible parties (PRP) including, but not limited to O'Connell & Hillery Lime & Marble Dust Co, Marbolith Stone Co, US Vitamin, Kings Electronics, Tuckahoe Ice, the Town of Eastchester, the Village of Bronxville, the Westchester County Industrial Development Agency and the Village of Tuckahoe to conduct an environmental investigation of the area. If there are no viable PRPs or the PRPs otherwise decline to conduct the investigation, DEC will then perform the investigation under the State Superfund.
- **Question/Concern 2:** Provide an analysis on the entire landfill area.
- **Answer 2:** Please see the response to question 1 above.
- **Question/Concern 3:** All properties around the site should be tested for air quality.
- Answer 3: DEC has determined that the site poses a potential significant threat to public health and/or the environment due to the levels of Freon compounds in soil vapor detected by the site investigation. As such, several adjacent off-site properties have been sampled for soil vapor intrusion to determine whether these properties are being impacted by the site soil vapor contamination. Sampling of these properties is being done in a phased approach until the extent of impact, if any, is determined. In addition, the remedy selected for the site will include a soil vapor extraction system (SVE) to treat the soil vapor on-site which will also serve to prevent the soil vapor on the site from migrating off the site and impacting adjacent off-site properties.
- Question/Concern 4: The State does not want to spend additional funding on testing.
- Answer 4: DEC is investigating off-site properties for potential soil vapor impacts and has collected and analyzed duplicate groundwater samples on-site. Please see the response to question 1 and 3.

Questions/Concerns that will be addressed by changes to the BCP remedy

Question/Concern 5: Venting of vapors through sub slab depressurization systems (SSDS) will affect the surrounding area.

- Answer 5: Vapor migration from the site will be controlled by installing the soil vapor extraction (SVE) system to prevent vapors from leaving the site. The SVE system will be equipped with carbon filtration as necessary to treat the vapor before discharging to the atmosphere. SSDS will be installed at neighboring structures, as necessary, to mitigate any vapor impacts to the structures.
- Question/Concern 6: DEC must require full and thorough remediation of the entire landfill.
- Answer 6: The remedy selected for this site represents a full and thorough remediation of the site and will protect public health and the environment from all avenues of potential exposure. The remedy will include source area removal during regrading, installation of an SVE system, a SSDS, a site cap, as well as long-term management through a Site Management Plan (SMP) and an Institutional Control (IC) that requires long-term management of the site remedy. In addition, the construction monitoring wells to be installed will allow additional assessments of groundwater migration before, during and after construction. Complete excavation of the landfilled area is not justified nor implementable given the developed nature of the area, and would result in greater short-term impacts such as odors, traffic, and contaminant exposure if it were viable. Capping landfills is a standard and proven approach, and is consistent with both State and federal guidance.
- **Question/Concern 7:** Development of the site will make future investigation and remediation nearly impossible.
- Answer 7: Development of the site will not impede additional investigation and remedial measures if that becomes necessary. In accordance with EPA guidance¹, the fundamental technologies for remediating inactive landfills are capping, landfill gas/vapor collection, and groundwater treatment (if necessary); all of which can be feasibly implemented with the anticipated development in place.
- Question/Concern 8: A site cover is not a sufficient remedy.
- Answer 8: The remedy, in addition to an impermeable cap, will include the removal of source material encountered during grading. The remedy will also require an SVE system and SSDS filtration to deal with elevated vapor concentrations found on-site. A construction monitoring plan (for groundwater), Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) will be required during site work to ensure contaminated vapors, dust and groundwater are not migrating off-site. A Site Management Plan (SMP) will be required to monitor the site post remedy to ensure the remedy remains protective and effective.
- **Question/Concern 9:** DEC must identify the Freon sources and remove them to prevent ozone depletion.
- Answer 9: Should the Volunteer encounter Freon containing equipment during remediation, it will be removed as required by the remedy. Also, Freon vapors will be addressed through the installation of the SVE system and SSDS.
- **Question/Concern 10:** The proposed remedy seems contradictory. The remedy supports capping in place but, also requires excavating of source materials.

¹ "Presumptive Remedy for CERCLA Municipal Landfill Sites" EPA 540-F-93-035, September 1993

- Answer 10: The capping system is the primary component of the remedy. To install the cap, the site must be graded to varying depths a across the site. The proposed remedy will also include source area removal based on sampling data and source material encountered during grading.
- **Question/Concern 11:** DOH and DEC must require monitoring during remediation.
- Answer 11: Yes, the DOH and DEC will require a community air monitoring plan (CAMP) to be implemented during any intrusive activities on-site, which will include both monitoring and contingency measures if action levels are exceeded. Additionally, a construction monitoring plan will be in place to monitor groundwater on-site during construction to ensure on-site contamination is not migrating off-site.
- **Question/Concern 12:** Remediation will increase the amount of toxics and exposures to the surrounding community.
- Answer 12: A CAMP and health and safety plan (HASP) will be in place during remediation to protect the surrounding community and site workers during construction. A construction monitoring plan will also be implemented to monitor and assess groundwater conditions prior to and during construction. Currently, there are no systems in place to monitor groundwater, prevent exposure to contaminated surface soils, and prevent soil vapor from being released into the atmosphere or beneath neighboring buildings. The remedy will address these potential exposures.
- Question/Concern 13: If a CAMP alarm sounds will workers stop digging?
- Answer 13: If CAMP action levels are reached, site work must cease, dusts/VOCs must be addressed, and work can only resume once air monitoring indicates air is below action levels.
- Question/Concern 14: What happens if drums or canisters are found that continue to leak into the air?
- Answer 14: Canisters and drums are considered to be source material, and will be removed from the site if they are encountered during the regrading.
- Question/Concern 15: Will neighbors be informed to seal windows during remediation?
- Answer 15: There will be no need for neighbors to shut or seal windows during remediation once the CAMP is in place.
- Question/Concern 16: Will AC units be able to filter the contaminants/particulates?
- Answer 16: A CAMP will be in place to ensure that dusts and VOCs are not migrating from the site. AC units should not be impacted.
- Question/Concern 17: How will transient visitors be warned of the dangers of the site
- Answer 17: The site will be fenced during remediation to restrict access and a sign indicating the sites status in the BCP will be placed on the site.

Miscellaneous Questions/Concerns

- **Question/Concern 18:** DEC and DOH should require testing for dioxins and furans in vapor, DEC and DOH have ignored dioxin testing requests.
- Answer 18: DEC and DOH will not require testing for dioxins and furans in vapor since dioxins and furans are not volatile compounds and would not be detected in vapor testing. DEC will require pre-characterization sampling of soil to be excavated, and these samples will be analyzed for dioxin indicator (precursor) compounds. DEC and DOH will use the results for these indicator compounds to screen the need for dioxin and chlorinated dibenzofuran testing. To date, indicator compounds were not found onsite or were detected at low concentrations not requiring follow-up.

Question/Concern 19: A magnetometer study should be included in the RAWP to identify drums, tanks, etc.

- Answer 19: Magnetometer studies are used when looking for drums, tanks, and metal-bearing materials to identify possible locations for further investigation. The landfill is filled with metal debris which would interfere with the detection of targeted items. Any drums/ tanks encountered during remediation/development will be removed from the site. In addition, magnetometers have depth limits and they are typically used to detect items near the surface (i.e., 5 -10 feet) not buried materials over 20 feet down.
- Question/Concern 20: Hold off on the development until the entire landfill is investigated.
- Answer 20: The DEC and DOH do not make a determination on the development of the property, it is the local government's responsibility to make this determination. The selected remedy and procedures to be implemented during the construction of the remedy and the redevelopment of the site will be protective of public health and the environment.
- Question/Concern 21: Suspend the BCP site and deem the entire quarry an inactive hazardous waste site.
- Answer 21: See Answers 1 and 19.
- **Question/Concern 22:** Develop a compensation plan in the event contamination has affected residents and workers.
- Answer 22: DEC does not have the authority to require such compensation. The BCP and SSF programs do not include compensation for past impacts on residents and workers. That form of compensation may be sought through other available legal mechanisms. The remedies under the BCP are required to be protective of public health and the environment going forward including prevention of further migration of the contaminants from the site.

Question/Concern 23: No hazardous waste site should be disturbed until it is fully understood.

Answer 23: The small amount of material that will be disturbed during regrading will be adequately characterized before it is disturbed, and the remainder will be capped in place without disturbance. The modification to the remedy that includes construction

groundwater monitoring will also provide an adequate evaluation of site groundwater contamination and whether it is migrating off-site.

Question/Concern 24: Whose responsibility is it to evaluate the groundwater and make sure that it is safe in Bronxville?

- Answer 24: Storm water runoff and groundwater associated with the FEMA/USACE flood mitigation project will be managed by those agencies through a storm water pollution protection plan (SWPPP). That plan will manage water and prevent release during the construction activities. In addition, Bronxville's drinking water is obtained by a source outside of Bronxville. At this time the data indicates that the quarry is not impacting the groundwater at the school.
- Question/Concern 25: Environmental data must be disseminated when available to BOE@eastchester.k12.ny.us
- Answer 25: Environmental data is made available to the public once the data has been validated by the DEC and DOH and placed in the repositories.
- Question/Concern 26: DEC refuses to test Bronxville's groundwater and basement sumps.
- Answer 26: DEC does not see the need to sample Bronxville's groundwater and basement sumps in connection with the Marble Quarry site based on presently available information. If the investigation of the greater landfill area indicates a potential for extensive off-site migration, not apparent by the available data, DEC will expand the investigation as necessary. In the meantime, homeowners and the school district may hire a consultant/contractor to sample their sumps if there is an immediate concern.
- **Question/Concern 27:** There should be no remediation or construction until the entire site is tested/ better understood.
- Answer 27: There is no technical justification for combining the investigation and remediation of the Brownfield site with the surrounding property investigation. The investigation conducted at this site is appropriate and is representative of a typical investigation of any landfill. The DEC- modified remedy represents a thorough remediation of the BCP site that is consistent with State and federal guidelines for remediating former landfills. See also Questions 7 and 23.
- Question/Concern 28: Contaminated air and groundwater is moving into neighborhoods.
- Answer 28: The investigation has shown that there are subsurface vapors beneath the properties immediately beyond the boundary of the BCP site, but these are not affecting indoor air. DEC has taken additional samples in order for DEC and NYSDOH to assess the extent of this migration. Groundwater has not yet been assessed beyond the boundaries of the BCP site, but will be under the P-site investigation. The volunteer in the BCP is not responsible to undertake this off of the BCP site investigation.
- Question/Concern 29: The quarry is filled with waste, why isn't the DEC doing anything?

Answer 29: The DEC is working to identify potentially responsible parties and will endeavor to get the PRPs to complete an investigation and, as necessary, any remediation. For the

portion of the landfill that is in the BCP, the selected remedy is consistent with the remedies selected for similar sites, with State and federal guidance for remediating landfills, and is protective of public health and the environment.

- Question/Concern 30: Bronxville and Yonkers are being subjugated to toxic chemicals from the site.
- Answer 30: There is no data to support this assertion.
- **Question/Concern 31:** How can we be assured that the groundwater at the Bronxville School is not contaminated by the toxic quarry upstream?
- Answer 31: As part of the P-site investigation, the extent of contamination from the quarry must be determined. However, data from the BCP site and other sites near Bronxville do not indicate the potential for significant contamination to migrate to the Bronxville School.
- Question/Concern 32: How can we be assured that the ground water at the Bronxville School is not contaminated by the toxic quarry upstream on Marbledale Road, and that the excavation on the site will not endanger the construction workers, school children, or nearby residents?
- Answer 32: Based on the low concentrations of volatile organic compounds found across the site, the distance (1.25 miles) the groundwater has to travel to potentially reach the Bronxville project, the amount of additional groundwater flowing to the general area from the watershed as a whole, and low concentrations of dissolved contamination found in groundwater at the site, the DEC feels that the groundwater impacts from the marble quarry will not have an impact on the Bronxville flood mitigation project.