SEQR

617.21
State Environmental Quality Review
FINDINGS STATEMENT
December 2019

Pursuant to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law and 6 NYCRR Part 617, the NYS Department of Environmental Conservation as an involved agency, makes the following findings.

Name of Action: Hakes C&D Debris Disposal Inc. Landfill Expansion

Description of Action: This facility, which is located at 4376 Manning Ridge Road, in the Town of Campbell, Steuben County, New York, is proposed to be expanded from 57.9 acres to 78.9 acres.

Location: 4376 Manning Ridge Road, Painted Post, NY 14870

DEC Application ID Numbers and Permits applied for:

- ECL Article 27: Solid Waste Management, #8-4630-00010/00001
- ECL Article 19: Air State Facility, #8-4630-00010/00011
- Section 401 Clean Water Act, Water Quality Certification, DEC No. 8-4630-00010/00015

Positive Declaration Issued: April 3, 2017

Date Draft Supplemental EIS Filed: January 10, 2018

SEQR Public Hearing Date: February 13, 2018

Date Final SEIS Filed: December 5, 2018

Permit Public Hearing Date: June 27, 2019

Findings Statement Date: December 19, 2019

Findings

Pursuant to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law and 6 NYCRR Part 617, the NYS Department of Environmental Conservation, as lead agency, makes the following findings for the proposed expansion of the Hakes C&D Debris Landfill.

The Department finds that the proposed Hakes C&D Debris Landfill Expansion will include measures that avoid, minimize, and mitigate adverse environmental impacts to the maximum extent practicable. Therefore, the SEQR record for this project supports the Department's approval of the necessary DEC permits for the project.

Facts and Conclusions in the EIS Relied Upon to Support the Decision:

The following facts and conclusions in the environmental impacts statement have been relied upon to support the department's decision to issue the permits for the Hakes C&D Debris Landfill Expansion:

Project Description:

In addition to the proposed expansion of the landfill from 57.9 acres to 78.9 acres, Hakes is also proposing to add a 22.2-acre soil borrow area at the same site for construction and cover materials. The project will include the expansion of other ancillary facilities, including the storm water ponds and site roads. The Landfill's approved design capacity of 1,494 tons per day, types of waste accepted, and the maximum elevation will not change.

The project also involves zoning action by Town of Campbell to establish a Non-Residential Planned Development District allowing solid waste disposal facilities/uses within the district, and Town Planning Board Site Plan Review of the proposed landfill expansion. The project sponsor has received permits from the Town of Campbell for site plan review and rezoning as a Non-Residential Planned Development.

The applicant has requested two variances from the State's solid waste management regulations: one to reduce the 100-foot setback to 90 feet along a portion of the landfill's western boundary to create a smooth transition, and the second concerning the allowance of stone greater than one inch in diameter in the bottom 18 inches of the low permeability soil component of the liner system. These variances will be approved and incorporated into the Part 360 permit.

The project includes the fill of approximately 0.672 acres of federally regulated wetlands for the expansion. To compensate for wetland losses, the applicant proposes to purchase in lieu fee wetland mitigation credits at a Corps of Engineers approved wetland mitigation bank. The Department has authorized the Section 401 Water Quality Certification for this activity which was required before the US Army Corps of Engineers can issue an individual 404 Permit.

The Department will also authorize a modification of the existing Air State Facility permit associated with the anticipated increase in landfill gas (hydrogen sulfide and methane) generated as a result of the expansion. According to the application, the peak flow of landfill gas will increase from 600 scfm to 750 scfm over the increased life of the landfill.

Current landfill gas is collected and controlled by a single, 750 scfm capacity open flare to combust hydrogen sulfide and methane.

Additional gas collection infrastructure will be installed within the additional landfill area, but no additional flares are necessary to the control the additional landfill gas that will be generated. The permit modification would require sampling of the gas and calculations to verify that SO2 emissions generated by combustion of hydrogen sulfide are below major source thresholds.

The applicant is subject to ongoing coverage under Sector L of the State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities (GP-0-17-004). Updates to the facility stormwater pollution prevention plan (SWPPP) have also been submitted as part of the complete application.

Project Need

The existing Hakes C&D Debris Landfill is currently running out of disposal capacity. Therefore, if the landfill is not expanded it will close. Construction of the expansion will allow the landfill to operate another 5-10 years based on the waste acceptance rates.

Hakes provides a controlled and monitored disposal outlet for construction and demolition (C&D) debris. According to EPA data, 548 million tons of C&D debris were generated in the United States in 2015 – more than twice the amount of generated municipal solid waste; demolition represents more than 90 percent of total C&D debris generation, while construction represents less than 10 percent. Although NYS has made great improvements in recycling C&D debris – 55% of C&D debris generated is recycled – there is still need for disposal. Additional C&D debris recycling has been inhibited by lack of markets for inherently valuable materials, a lack of information on material composition, origin and destination, and concerns about asbestos contamination[1]. Without C&D debris landfills, this waste stream may find its way into stream banks, low laying areas, abandoned properties, and other illegal disposal sites.

If the landfill does not expand, the C&D debris waste will need to be exported to other NY facilities or out of state or end up in an uncontrolled location. The landfill also provides a needed disposal option for drill cuttings that meet the definition of C&D debris.

1 http://www.dec.ny.gov/docs/materials_minerals_pdf/frptbeyondwaste.pdf

SEQR

DEC is required to consider the relevant environmental impacts, facts and conclusions disclosed in the Final Supplemental EIS in its SEQR Findings statement.

Under Environmental Conservation Law section 8-109, DEC is required to choose the alternative which, consistent with social, economic, and other essential considerations, minimizes or avoids adverse environmental effects to the maximum extent practicable, including effects revealed in the environmental impact statement process.

While the lead agency findings are based on the full SEQR record and include a comprehensive analysis of issues, pursuant to 6 NYCRR Section 617.3(b), nothing herein changes the jurisdiction between or among State and local agencies, nor affects the jurisdiction of other involved agencies or precludes the inclusion in their findings of substantive conditions which are practicable and reasonably related to the impacts identified in the FSEIS. The involved agencies, consistent with 6 NYCRR Section 617.11(c), are required to make their own findings as they relate to their relevant state, county, and local approvals and jurisdiction.

Effects on Ecological Resources; Soils, Plants, Animals, and Wetlands

The areas of the proposed landfill expansion and new borrow area is not considered "significant habitat" or habitat required to support threatened, endangered or rare plant or animal species. Nor does the project area contain regulated wetland or state protected streams. The project site does include some federally regulated wetlands which require an individual US Army Corps of Engineers 404 Permit to fill 0.672 acres of federal wetland. For information on the habitat related to the federal wetlands to be impacted by the landfill expansion, see the Surface Water Section below.

Most of the area contains primarily northern hardwood forest community. This is a very common cover type in the area; therefore, the loss of the acreage was deemed to be insignificant.

The area was determined to be a potential location for the presence of northern long eared bat; therefore, tree clearing dates will be limited to November 1 to March 31 while the bats are hibernating in the hibernacula.

The area was also determined to be a possible location for timber rattlesnake due to nearby confirmed populations, however, the snakes are not observed. Therefore, a timber rattlesnake management plan was developed, and it will be implemented in the event of siting to avoid and minimize effects to the snakes and workers.

The changes will not occur all at once and will be somewhat mitigated by the future grassland habitat. The facility will be required to comply with closure and post closure plans to adequately close the landfill.

The borrow area and stormwater ponds are upstream of Tributary 4 of Erwin Hollow Creek and Erwin Hollow Creek, which is a trout spawning stream (C(TS) classification).

The borrow area will be designed to divert stormwater to the stormwater basins which will prevent the sedimentation of the stream and protect the trout and aquatic resources. This is discussed further under section on surface water below.

Safety and Overall Protection of the Environment

The Department has authorized construction and operation of the Expansion which includes the Part 360 Solid Waste Management Facility Permit application, Part 201 State Air Facility Permit application, 401 Water Quality Certification, and Multi-Sector General Permit for Industrial Stormwater Activities. The application package included the engineering drawings, hydrological reports and other information pertaining to the construction and operation of the landfill as related to protection of surface water, ground water and surrounding lands and wetlands.

Specifically, the application consisted of the following documents:

DSEIS January 2018
FSEIS December 2018
6 NYCRR Part 360 Solid Waste Management Permit Application, Volumes 1-4, dated November 2018 – Received December 2018
Volume 1: Part I Introduction and Administrative Information, Part II Engineering Report
Volume 2: Part III Hydrogeologic Report
Volume 3: Part IV Facility Manual Volume
4: Part V Borrow Area Use Plan

Joint Application for Permit dated February 2018, updated December 2018, updated March 2019

Air Permit Modification Application received December 2018 Environmental

Monitoring Plan dated September 2019

Air Permit Application Addendum dated August 2019

The Department raised questions pertaining to the engineering design of the landfill, stormwater management, slope stability, and other items in Notices of Incomplete Application. These questions were answered in resubmittals dated May 16, 2018, March 20, 2019, April 29, 2019, and May 20, 2019 (Variance Request Withdrawal).

Effects on Surface Water

The expansion will result in the additional disturbance of approximately 21 acres for new landfill cell area, 22.2 acres for new borrow area, and additional acreage for new roadways at the facility. The facility will be constructed along two class C tributaries, Erwin Hollow Creek and Tributary 4 to Erwin Hollow Creek. Tributary 4 intersects with Erwin Hollow Creek south of the landfill, at which point, Erwin Hollow Creek is classified as C(TS) for trout spawning.

There are currently stormwater basins which treat the stormwater coming off the existing landfill and discharge treated stormwater to Tributary 4 of Erwin Hollow Creek.

The DSEIS includes data on the streams to determine current conditions both upstream and downstream of the existing stormwater basin discharges. This data includes temperatures, dissolved oxygen, pH, temperature, and turbidity.

The streams will be monitored for these parameters after the new and modified stormwater basins are constructed and the landfill and borrow area go into operation to allow the Department to monitor the streams to verify the expansion and borrow area are not having an impact on the water quality.

If any changes in parameters are observed, Department staff may require modifications to the stormwater management to improve treatment.

Calculations for the proposed stormwater drainage system are presented in The Engineering Report Appendix E: Surface Water Management Analysis. The proposed design of the stormwater management system includes diversion ditches and several ponds, which will be adequate to control stormwater runoff from the proposed landfill expansion and new borrow area. The expansion will result in an increase in the drainage area to Ponds 4, 5 and the East Pond and a decrease in the drainage area to Ponds 1 and 3. The total increase in drainage area associated with the expansion is 16.1 acres. The increased drainage areas to accommodate the expansion Ponds 4, 5 and the East Pond will be accommodated by increasing the capacity of these ponds. In addition, a new pond will be constructed next to the East Pond to accommodate runoff from the borrow area.

Engineering details for the stormwater controls were included in the Part 360 Engineering Report and the updated Stormwater Pollution Prevention Plan (SWPPP) required pursuant to the Multi-Sector General Permit for industrial Activities (SPDES General Permit 0-17-004). Staff have reviewed these documents, including the Engineering Plans, and have determined that the proposed landfill design meets the requirements of the Solid Waste Management and Water Quality regulations; therefore, it will be designed to be protective of surface water.

The updated SWPPP includes detailed stormwater control measures, Best Management Practices, MSGP Sector-Specific Non-Numeric Effluent Limits, sampling and monitoring, inspections, and reporting. Hakes will need to request 5 acre-waivers and show updated details, including relevant sections of the SWPPP, for each phase of the landfill expansion as they advance through final design stages of the landfill and borrow area.

The Environmental Monitoring Information in the DSEIS includes the Proposed Monitoring Program for the landfill expansion and new borrow area. This plan includes surface water monitoring locations including upstream and downstream locations and narrative discussion on how the expansion and borrow area would be accomplished to be protective of water quality.

The application includes a detailed and updated Environmental Monitoring Plan (EMP), (Appendix C of the Facility Manual submitted with the permit application package, with update on September 2019). This includes appropriate controls and monitoring for the landfill expansion and borrow area, surface water sampling and analysis of the sediment control basin outlets, the infiltration basin outlets, as well as the upgradient and downgradient sampling points to allow comparison sampling. The updated plan includes a new sampling location upstream of the proposed borrow area. It also requires quarterly sampling and analysis including 6 NYCRR Part 363 routine and baseline parameters as well as suspended solids and observations of the contrast of site discharges to the accepting stream.

In addition, the Borrow Area Use Plan for the proposed borrow area includes specific details for all aspects of mining including site preparation, extraction, and sequencing of all activities including construction of surface water and sediment control practices.

The Department's 360 permit and Multi-Sector General Permit for industrial Activities (SPDES General Permit 0-17-004) require ongoing inspection and notification to Department staff of any conditions requiring corrective action related to surface water.

The Department will continue to staff an environmental monitor located at the Hakes site to inspect all aspects of site operation including stormwater management and effectiveness, typically one day per week.

The Facility Manual includes documents that work in tandem with the EMP including the Site Analytical Plan, which includes lab procedures, quality assurance, quality control, and reporting and recordkeeping. Should any parameters be observed in these samples, they will be reviewed by the Department for the need for an action plan and implementation.

The applicant requested a 401 Water Quality Certification be issued for the proposed fill of 0.672 acres of federally designated wetlands (palustrine emergent wetlands (PEM)) which requires an individual permit from the US Army Corps of Engineers. The Corps has indicated that the portions of wetlands remaining after the fill has occurred may also be impacted due to bifurcation and removal of surface water and groundwater. To minimize impacts to the remaining wetlands, the applicant is proposing to divert stormwater and groundwater to the remaining un-impacted wetlands by use of surface spreaders. Groundwater intercepted from beneath the liner system can also be pumped back to the wetlands areas. The Corps will also be requiring the purchase of The Wetland Trusts' (TWT) In-Lieu Fee Program credits. The ratio will be at least 2:1 or higher.

Effects on Groundwater

The Department conducted a comprehensive review of the landfill's hydrogeology which is detailed in the comprehensive Hydrogeologic Report. In general, groundwater flow at the site occurs in the lower portion of the glacial till and the upper zone of the bedrock. Groundwater flow in the till and bedrock at the site is somewhat limited by the low permeability soils. Groundwater flow at the site is from the northwest to the southeast, following the topography toward Tributary 4 of Erwin Hollow Creek. The landfill is not located over the area's aquifer (the Corning aquifer).

It will be necessary to intercept and suppress the water table in the glacial till overburden. Throughout the proposed area of landfill cell development, a groundwater suppression system will be provided below the cell.

Department staff determined that the subsurface geology was suitable for the construction of the landfill expansion based on the site investigation which included soil borings, test pits, geotechnical testing, monitoring wells, water level monitoring, residential well monitoring, and groundwater sampling and analysis.

The landfill will be designed to prevent contamination of groundwater using the following infrastructure: surface water diversion ditches and sedimentation ponds, the groundwater suppression system, the final cover system, the leachate collection and storage system, and the composite landfill liner. The existing low permeability soils and additional soil from the borrow area as needed will be used to create the required 10-foot bedrock separation distance. A request for variance from this 10-foot requirement was not approved.

The leachate collection system in place at the existing landfill, which collects all generated leachate at the bottom of the landfill cells, will be expanded to the proposed expanded landfill. This system directs leachate to a collection tank where it is then transferred to truck and sent to a nearby Wastewater Treatment plant.

The systems in place now and to be installed in the future, including the composite liner system and groundwater suppression system, were designed to prevent leakage of leachate into the groundwater.

The environmental monitoring system would detect any failures of the liner system and enable corrective actions to be implemented before significant damage is incurred. Monitoring data from the groundwater suppression system and monitoring wells is reported to the Department on a quarterly basis. The sampling locations and protocols are included in the Environmental Monitoring Plan which is part of the Facility Manual.

Radioactivity Impacts

Radioactive wastes and fracking waste are <u>not</u> accepted at the facility. As mentioned above, the expansion will allow Hakes to continue to provide a needed disposal option for drill cuttings. Drill cuttings accepted at Hakes are not a fracking waste; they are ground up rock generated from

the vertical portion of a well prior to any high-volume hydraulic fracturing operations. While cuttings from wells being developed in the Marcellus formation come to the landfill for disposal, little of those drill cuttings come from the actual Marcellus formation itself. This is because C&D debris landfills can only accept cuttings from drilling using air or water-based drilling fluids, but they cannot accept cuttings from drilling using oil-based drilling fluid. The vertical well bore leading down to the Marcellus formation is often drilled using air or water drilling fluids, but the horizontal leg of these wells is completed using oil-based drilling fluids, which cannot be accepted at C&D debris landfills and which is specifically prohibited in the Hakes landfill Part 360 permit. The disposal of these materials is not a new operation for the landfill; rather, it is a continuation of the on-going activities of the current landfill.

The DSEIS did not include a detailed evaluation of the disposal of this waste stream as it was not considered a "modification" of the permit. However, numerous comments were received pertaining to the disposal of drill cuttings during the SEQR public hearing and the associated written comment period. Therefore, the Department provided detailed responses to questions and comments in the Final Supplemental Environmental Impact Statement (FSEIS) issued December 5, 2018. [Public comments about potential drill-cutting related radioactivity impacts were also received at a DEC 6 NYCRR Part 621 Legislative (Public) Hearing in May 2019 and the associated written public comment period. At the time of permit issuance in December 2019, the Department provided a topical response (see the attached Responsiveness Summary) which incorporates and re-organizes certain aspects of the 2018 FEIS in response to common categories of public comments received on the permit applications.]

All questions pertaining to drill cuttings including analytical methods, levels of radiation in leachate, portal monitor accuracy, groundwater contamination and the Corning Aquifer, stormwater, worker exposure to radioactivity in buried waste, TENORM, drinking water, radioactive dust, and other radiological issues were addressed in the FSEIS.

The Department considers the disposal of drill cuttings in the landfill to be safe for the environment and for the public. All incoming waste must pass through permanent fixed radiation monitors to ensure continuous monitoring of compliance with the applicable standards.

The Environmental Monitoring Plan requires semi-annual monitoring of leachate for radiological content. The groundwater monitoring system is monitored for Part 360 regulated landfill constituents; therefore, the environmental monitoring plan provides a comprehensive monitoring system for liner system integrity.

The landfill is located in an area of Steuben County which is known to contribute to indoor radon issues due to natural sources of radon in soils and rock. Radon is an indoor air contaminant which must be removed from inside homes where it is confined when it accumulates to high levels. Radon disperses quickly outside of confined spaces and is not considered an air pollutant which must be controlled on residential treatment systems.

For detailed responses to questions pertaining to drill cuttings, please see the FSEIS issued December 5, 2018 and the enclosed FSEIS addendum.

Visual and Aesthetic Impacts

The proposed expansion of the landfill will result in a lateral extension of the cell area to the north by approximately 1,000 feet. A visual analysis was completed in the DSEIS. It included a viewshed analysis that showed that the visibility of the new project would be limited to views along Manning Ridge Road, Thompson Road and other more distant rural roads.

Because the site is an existing landfill, it was determined that the change would only be somewhat significant to two residences on Manning Ridge Road. Driving by the site from roads that already have views of the existing landfill including Manning Ridge Road will not constitute a significant change. To help mitigate any potential visual impacts, existing vegetative screens between landfill operations and potential viewers will reduce the visual impact of the expanded landfill cell area and will be left in place to the extent they are under the control of the applicant. And additional vegetative screens will be established by planting more trees between the landfill and Manning Ridge Road. The reclaimed site will be fully vegetated. Also, several properties that are adjacent to the landfill were purchased as buffer properties; thus, these properties have been mitigated with respect to visual impacts as well.

The analysis evaluated the visual impacts to visually significant locations and determined that none of the locations would be impacted.

Overall, the landfill is located in a rural area with a small number of viewsheds which will be slightly impacted. There are no significant scenic resources that will be impacted such as state parks, scenic areas or roads, or other historic or national landmarks. The site character and area character will not be changed significantly. Therefore, the visual impacts were determined to be acceptable.

Community Resources, Open Space, Recreation, neighborhoods

Community and related resources were evaluated by the Department, with input from the Town of Campbell, an Involved Agency, under the SEQR process. The expansion will not have a significant impact on community resources, open space or neighborhoods since it is an existing facility. Noise impacts have been mitigated because the project is required to meet Part 360 Noise Standards (see below).

The Town of Campbell reviewed a final site plan for the project, the first step of which was the designation of the Hakes site as a Non-Residential Planned Development District (NRPDD) by the Town Board. The Town Board has approved the final site plan and creation of a NRPDD, which includes conditions and standards governing uses within the district. These approved uses are consistent with existing current uses.

Traffic

Traffic from the proposed expansion and borrow area will not significantly change because the facility is not increasing its design capacity. However, the traffic from the landfill will be extended an additional 5 to 10 years. Significant upgrades to the roads heading to the landfill have been implemented by the applicant including Manning Ridge Road to improve safety and condition of the road. The Town of Erwin has reached an agreement with Hakes regarding improvements and future maintenance of Erwin Hollow Road.

Noise

The applicant conducted two noise assessments to assess worst case noise scenarios to determine if the expansion and borrow area could meet both the Part 360 series noise requirements (NYCRR Subpart 360.19(j)) and the Department's Program Policy, "Assessing and Mitigating Noise Impacts". The assessment included background noise levels measured at sensitive receptor locations which were determined to be the closest residences which were located to the north and to the west. The ambient noise level at all locations was determined to be approximately 45 dBA.

The facility must meet a 1-hour Leq limit of 57 dBA between the hours of 7 am to 10 pm at residential property lines to meet the Part 360 series requirement. The Noise Policy requires that the change in noise be less than a delta of 6 dBA and less than a maximum of 65 dBA at sensitive receptor locations.

Based on the Part 360 noise assessment for both waste placement in the landfill and excavation in the soil borrow area, Hakes determined that noise mitigations may be needed and has committed to several mitigation measures including setback of 300 feet from the property to the edge of the disposal operations, an undisturbed strip of woodlands a minimum of 130 feet wide inside the property lines, mufflers on all equipment, and a perimeter berm along the boundaries of the expansion disposal area. Other strategies will be employed as needed; however, they are not specifically required by the permit. The facility must meet the 57- dBA requirement noted above. The methods will be determined by Hakes as needed and include stopping operations for a temporary period during the 1-hour measurement, placing waste with reduced equipment, changing waste disposal locations, changing equipment and backup beepers, and temporary berms.

The SEQR study showed that the change in noise would be less than 1 dBA at the nearest receptors. The study showed that the facility would result in dBAs of under 50 for 1-hour L(eq)s at sensitive receptor locations.

A real time noise monitoring system will continuously monitor noise at specified locations along the north and east key compliance locations to confirm that the 57 dBA limit at the property line is met. This allows the landfill operation to adjust operations so that no violations occur. Alerts will be triggered by noise levels that approach regulatory criteria. The locations of the two noise monitors will change over time and will be determined based on the location of the worst-case activities at the time. The Part 360 series permit has permit conditions requiring the placement of the real time monitoring system prior to cell and borrow area operation.

Noise easements were purchased for several residential properties and several actual properties were purchased near the landfill; thus, the noise can exceed 57 dBA for those property lines.

A supplemental SEQR evaluation was conducted for the NRPDD.

A second study was done for the Part 360 series noise requirements (NYCRR Subpart 360.19(j)). The study focused on the property boundaries and the two closest residents including the resident on Frog Hollow and on Woodcock Road. The studies, which included operations of the flares, from landfill expansion, and the borrow area, showed that the facility will be able to meet the regulatory requirements with the mitigation measures required above and the other strategies listed above to be implemented if needed.

Air Quality

The facility currently holds an Air State Facility permit for the landfill gas fugitive emissions, control (flare) emissions (sulfur dioxide), on-site dust, fine particulate matter, possible combustion emissions from fire (an unauthorized activity) and vehicle emissions.

Landfill gas is generated from decomposition of waste which consists of carbon dioxide, methane, hydrogen sulfide, and other sulfur containing gases. Landfill emissions will be minimized by cover materials, the landfill liner, active gas collection and control. The flare controls the landfill gas but creates combustion emissions including sulfur dioxide. The facility will also be implementing a gas treatment system as necessary to control sulfur dioxide emissions. The older 400 scfm back-up flare will be permanently decommissioned and no longer be used at the facility; only the larger 750 scfm capacity flare will be used as the primary gas control device for the facility.

The Air State facility application evaluated the potential peak flow of landfill gas and the facility's potential will remain under the major source threshold of 100 tons per year of sulfur dioxide.

The Air State facility application included screening for sulfur dioxide (SO2) and Hydrogen Sulfide (H2S) using the EPA Screen3 program to evaluate the potential emissions with respect to the federal National Ambient Air Quality Standard (NAAQS) for SO2 and the New York State Ambient Air Quality Standard for hydrogen sulfide as determined in 6NYCRR Part 257-10.

The Department requested additional modeling with the appropriate inclusion of background sulfur dioxide concentrations into the evaluation of estimated, ground-level sulfur dioxide concentrations and clarifications to the Ambient Air Dispersion Modeling Analysis. The facility further assessed emissions from the maximum gas going through the flare and whether it exceeded the one-hour EPA National Ambient Air Quality Standard (NAAQS) for SO2 of 75 parts per billion. A refined model assessment was submitted to the Department. Additional permit conditions were included in the Air State Facility permit to assure the SO2 emissions would meet all air quality standards.

Hazardous air pollutant (HAP) emissions and Volatile Organic Chemicals (VOC) were calculated to be well below major source thresholds.

Water will be used to control fugitive dust on roadways, stockpiles, and loose soils. Establishment of vegetative cover on disturbed areas and soil stockpiles will also limit dust. Dusty loads will be controlled, and all trucks will require tarps.

Commissioner Policy CP-33 requires that projects are evaluated for fine particulate matter impacts and when mitigation of impacts is required. If primary PM_{10} emissions from the project do not equal or exceed 15 tons per year[2] then the $PM_{2.5}$ impacts from the project shall be deemed insignificant and no further assessment shall be required under this policy. The increase in fine particulate emissions (PM-10), as a result of the expansion, were calculated to be less than 15 tons per year and therefore no further analysis of $PM_{-2.5}$ was required.

Vehicle exhaust is required to meet vehicle emission standards. Off-site borrow will generally not be required, therefore, traffic emissions will be reduced once the mine is operating.

Subsurface Fires

The most effective mitigation is prevention. Hakes has developed plans to prevent fires for the expansion including placing soil cover on waste and installing liner flaps at cell perimeters during the construction process to reduce air flow to buried waste.

Should a subsurface fire begin, Hakes can reduce the vacuum to the area and ask the Department for approval to reintroduce leachate to reduce temperatures and CO levels. Water and extra soil cover can be placed over the fire area.

Odors

Unlike a municipal solid waste landfill, the Hakes C&D debris landfill does not take in putrescible waste. It does take in some materials which can decompose, including gypsum board (dry wall), and produce odorous compounds.

Hydrogen sulfide is generated from these materials and its odor can be detected at extremely low levels, which are much lower than the air quality standard levels.

As discussed above in the Air Section, odors are controlled by operating cover and intermediate and final cover materials, the landfill liner, active gas collection, and control (flare and gas treatment system, as necessary). The hydrogen sulfide emissions measurements and screening modelling calculations have shown that the off-site ambient air quality impact from the landfill expansion, as with the existing landfill, will be below the 6NYCRR Part 257-10.3 ambient air quality standard for hydrogen sulfide and will not have ground level impacts or health impacts.

The Facility Manual includes guidelines to control odors resulting from operations and waste disposal.

Cultural Archaeological Impacts

The NYS Office of Parks, Recreation and Historic Preservation determined that there are no significant impacts to cultural or archaeological resources from the project.

Variances

Two variances from solid waste management regulations are included in the Part 360 series permit. The first pertains to the 100-foot setback requirement in 6 NYCRR § 363-6.2 and allows a transition from the current 90-foot setback to the required 100-foot setback along the western boundary of the landfill. The second pertains to 6 NYCRR § 363-6.7(a)(2)(i) and allows the use of stone greater than one-inch diameter - up to three inches diameter - in the bottom 18 inches of the 24-inch low permeability soil component of the single composite liner system. The Department determined that these variances are reasonable and protective of the environment.

A third variance request was submitted at the time of application pertaining to the requirement in 6 NYCCR § 363-6.4 for 10 feet of separation between the base of the liner system and bedrock. The requested variance would have allowed 5 feet of separation using a constructed soil layer and additional groundwater monitoring. The Department determined not to approve the requested variance and the applicant has withdrawn the request from the proposed expansion.

CERTIFICATION OF FINDINGS TO APPROVE/FUND/UNDERTAKE

Having considered the Draft Supplemental and Final Supplemental EIS, and having considered the preceding written facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.9, this Statement of Findings certifies that:

1. The requirements of 6NYCRR Part 617 have been met;

2. Consistent with the social, economic and other essential considerations from among the reasonable alternatives available, the action is one which avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures which were identified as practicable.

3. Consistent with the applicable policies of Article 42 of the Executive Law, as implemented by 19 NYCRR 600.5, this action will achieve a balance between the protection of the environment and the need to accommodate social and economic considerations.

The New York State Department of Environmental Conservation
Name of Agency

Kimberly A. Merchant
Signature of Responsible Official

Kimberly A. Merchant
Name of Responsible Official

Deputy Regional Permit Administrator
Title of Responsible Official

12/19/2019
Date

6274 East Avon-Lima Road, Avon, New York 14414
Address of Agency

Attachment: Permit Application Responsiveness Summary, December 2019