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August 2, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Quarry Minerals Management Area
PROJECT MUNICIPALITY	: Adams
PROJECT WATERSHED	: Hoosic River
EEA NUMBER	: 16040
PROJECT PROPONENT	: Specialty Minerals, Inc.
DATE NOTICED IN MONITOR	: June 10, 2019

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project **requires** a Mandatory Environmental Impact Report (EIR). The Proponent submitted an Expanded Environmental Notification Form (EENF) with a request that I allow a Single EIR to be submitted in lieu of the usual two-stage Draft and Final EIR process pursuant to Section 11.06(8) of the MEPA regulations. The Proponent should submit a Single EIR in accordance with the Scope included in this Certificate.

Project Description

As described in the EENF, the project consists of the construction of a solid waste disposal area, known as the Quarry Minerals Management Area (QMMA), at the Proponent's limestone quarrying and processing facility (facility). The limestone is processed to produce calcium carbonate and several co-products, including crusher fines, kiln feed solids (KFS) dust, fluosolids (FS) dust and pond solids. The co-products may be recycled or reused to produce other products, or disposed of on-site in existing

landfills. Pond solids and KFS dust are categorized as solid waste and their disposal is regulated by the Massachusetts Department of Environmental Protection (MassDEP). The QMMA will not accept solid waste generated off-site.

The QMMA will be constructed by the phased filling of a portion of an existing quarry. The first phase includes the construction of a 115-foot (ft) thick subbase at the bottom of the quarry. The subbase will consist of 3.2 million cubic yards (cy) of clean fill (unprocessed rock strippings from quarrying operations) that are either currently stockpiled on the site or will be generated by future quarrying operations. The top of the subbase will be established at elevation 765 ft NAVD 88, which is five feet above the peak groundwater elevation of 760 ft NAVD 88. A 12-inch diameter drain pipe will be installed at the peak groundwater elevation. It will minimize intrusion of groundwater into solid waste placed on top of the subbase by conveying water to existing settling ponds located on the east side of Route 8 (Columbia Road). Construction of the subbase will start at the southern end of the QMMA and proceed to the northern end, where a final 2:1 (horizontal:vertical) slope will be constructed to meet the bottom elevation of the quarry at elevation 615 ft NAVD 88.

As sections of the subbase are completed, landfill cells will be constructed on the subbase with 20-ft high perimeter berms. The berms will consist of clean material placed at a 1:1.5 slope. Diversion berms and swales will be constructed for each cell to minimize stormwater contact with solid waste. The final design of the landfill will include 2:1 slopes along the north and east sides. The top of the landfill will be at elevation 1,235 ft NAVD 88 to match the surrounding topography. The landfill will be covered with loam and seeded.

The facility generates approximately 318 tons per day of solid wastes, including 71 tpd of FS dust and 247 tpd of pond solids. In addition to approximately 310 tpd of FS dust and pond solids, the QMMA will receive unregulated waste generated at the site, including KFS dust, crusher fines, mill waste material previously disposed of within the quarry and unprocessed rock. Two landfills currently operating at the facility, the Powerline Landfill and the Notch Road Landfill, are expected to reach capacity in two to three years. The QMMA will provide the Proponent with approximately 16,000,000 cy of new disposal capacity, which should accommodate the Proponent's solid waste disposal requirements for over 50 years.

Project Site

The Proponent's facility covers approximately 970 acres in north-central Adams. The site has been in use for limestone mining since the mid-1800's. It is bisected by Route 8, with quarrying and processing operations west of the road and settling ponds to the east. The facility is bordered to the west by undeveloped land, including the Department of Conservation and Recreation's Mount Greylock State Reservation, to the east by the Hoosac River, and to the north and south by residential and commercial uses along Route 8. The Proponent's facility is located in an area zoned for industrial use.

The quarry is located on the west side of the site. Three existing landfills, including the Dollar Farm Landfill, the Powerline Landfill and the Notch Road Landfill, are located to the west of the quarry. The Dollar Farm Landfill reached its capacity in the 1990s and has been closed. The QMMA will occupy a 72-acre portion of the inactive southern end of the quarry. The quarry is generally 350 feet (ft) deep at southern end; the bottom of the quarry is located at elevation 550 feet NAVD 88 and the access

road at the top is at elevation 895 ft NAVD 88. Peak elevations north and west of the quarry associated with the existing landfills and landforms range from 1,000 ft to 1,150 ft NAVD 88.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include the disposal of 310 tpd of solid waste and associated noise and emissions of air pollutants, including greenhouse gas (GHG) and dust. Solid wastes generated at the site have the potential to impact groundwater and surface water quality.

Measures to avoid, minimize and mitigate environmental impacts minimizing contact between solid wastes and stormwater and groundwater by elevating the landfill above groundwater levels and installing a drainage system to convey water away from the landfill. All wastes will be generated on-site and all truck traffic, noise and dust will be confined to the existing facility. The QMMA will be located at least 1,000 ft away from residential buildings. The project will not increase the volume of stormwater and groundwater conveyed to the settling ponds and may result in a decrease in the volume of groundwater entering the drainage system. On-site disposal of solid waste will minimize GHG emissions compared to transport of the material to an off-site landfill.

Jurisdiction and Permitting

The project is subject to the preparation of a Mandatory EIR pursuant to the 301 CMR 11.03(9)(a) because it requires Agency Actions and will provide new capacity of 150 or more tpd for disposal of solid waste. The project requires a Site Assignment, Authorization to Construct a Large Landfill, Authorization to Operate (ATO) and Corrective Action Design (CAD) permits from MassDEP.[1] The project is subject to the MEPA GHG Emissions Policy and Protocol (GHG Policy) and the EEA Environmental Justice (EJ) Policy.

The project requires a Site Assignment approval from the Adams Board of Health. The facility is subject to a National Pollutant Discharge Elimination System (NPDES) Permit from the United States Environmental Protection Agency (EPA) that is currently being renewed.

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction extends to land alteration, solid waste and GHG emissions.

[1] According to MassDEP, ATO and CAD permits may be required for the construction and closure of individual landfill cells.

Request for Single EIR

The MEPA regulations indicate a Single EIR may be allowed provided I find that the EENF:

a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;
b) provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and,
c) demonstrates that the planning and design of the project use all feasible means to avoid potential environmental impacts.

Consistent with this request, the EENF was subject to an extended comment period. Comments from MassDEP did not identify analyses or information that should be provided in a Draft EIR (DEIR). The Berkshire Regional Planning Commission (BRPC) supports the Proponent's request for a Single EIR.

Review of the EENF

The EENF described existing conditions, provided a project description and plans, and compared environmental impacts of the Preferred Alternative to alternative designs. It identified the project's impacts on water quality, air quality and GHG emissions, reviewed construction-period impacts, and identified mitigation measures. The EENF reviewed the chemical properties of solid wastes to be stored at the site and included analyses of groundwater conditions, geotechnical technical conditions and slope stability analyses for proposed conditions. It included a GHG Analysis and identified potential climate change effects that could impact the site and reviewed resiliency measures incorporated into the project design. Consistent with the enhanced outreach requirements of the EJ Policy, the Proponent requested the Town's assistance in distributing the EENF to the senior center, public library and other appropriate locations. The MEPA Public Notice and site visit notification were published in the *Berkshire Eagle* and on the iBerkshire online news website.

Alternatives Analysis

The EENF included an alternatives analysis comparing the Preferred Alternative to No Action, Recycling/Beneficial Reuse, Offsite Disposal and Onsite Disposal in Northwest Area alternatives. Under the No Action alternative, the Proponent would cease operations at the site when the existing landfill capacity is reached in two to three years.

The Recycling/Beneficial Reuse alternative would minimize the need for new landfill capacity by recycling or reusing the co-products. According to the EENF, the Proponent has received a Beneficial Use Determination (BUD) from MassDEP to permit the reuse of FS dust and pond solids. MassDEP has approved the use of FS dust for acid neutralization, flue gas desulfurization, cement production and treatment of ash, wastewater and municipal sludge. Pond solids are used for cement production, flexible liner production and acid neutralization. This alternative is consistent with the Proponent's sustainability goals and is currently implemented to a degree; however, the market for the co-products is not sufficient to avoid the need for disposal.

The Offsite Disposal alternative would involve transporting solid wastes to the nearest landfill with the capacity to accommodate the FS dust and pond solids. According to the EENF, the nearest such facility is located in Ohio. Transport of solid waste would require 5,600 truck trips per year at a cost of $400 per trip, plus tipping fees at the landfill of approximately $60 per ton, for a total cost of over $9 million per year. This alternative is not feasible because of the cost and the additional environmental impacts associated with truck trips, including increased traffic, noise and emissions of GHG and other air pollutants.

The Onsite Disposal at Northwest Area would include construction of a landfill in the northwest corner of the Proponent's site on the slopes of Mount Greylock. A landfill at this would be limited in area by the presence of streams and wetlands associated with Upton Brook and the topography of the site would limit the disposal capacity to less than 10 years. This alternative would require disturbance of undeveloped land, including land adjacent to the Mount Greylock Reservation. It is more remote from the processing facility and transporting solid waste to the area would increase noise and air quality impacts compared to the Preferred Alternative.

The Preferred Alternative involves the reuse of land that has already been disturbed by quarrying. It will continue the existing solid waste disposal practices at the facility and will not introduce new environmental impacts. The Preferred Alternative will confine the impacts associated with the landfill to the boundaries of the facility and avoid impacts associated with transport of solid waste to an off-site location, including traffic and GHG emissions. Stormwater and groundwater will pass through settling ponds before being discharged into the Hoosic River in accordance with the NPDES permit. The Preferred Alternative will increase the resiliency and ecological value of the site by vegetating the landfill cap upon its closure, which will sequester carbon and provide wildlife habitat.

Solid Waste

The project will require Site Assignment approval by MassDEP and the Adams Board of Health. In addition, MassDEP must issue permits for the construction, operation and closure of the landfill. The proposed Site Assigned area is 125 acres, which includes the 72-acre QMMA and a buffer area. According to the EENF, the QMMA meets siting requirements for solid waste disposal facilities. The outer limits of the QMMA are at least 1,000 feet away from residential areas and the site is not located within wetlands, the 100-year floodplain, rare species habitat, or an Area of Critical Environmental Concern (ACEC). There are no public or private water supply wells within 0.5 miles of the site.

According to the EENF, FS dust and pond solids exhibit average pH values of 12.35 and 11.88, respectively. In-situ samples of these wastes from the existing landfills confirmed the high pH values; however, the results of water quality monitoring at the site indicate that the landfills have no effect on the pH of groundwater and surface water. According to the EENF, the landfills do not affect water quality because the low permeability of the solid waste minimizes contact between solid waste and groundwater. The design of the QMMA is consistent with that of the existing landfills on the site, which currently accept solid waste from the facility. The existing landfills have been granted waivers by MassDEP from the requirements for liners and capping systems because of the absence of impacts detected in the monitoring program; comments from MassDEP indicate that the request for waiver for the QMMA will be evaluated during the permitting process. According to the EENF, surface water and

groundwater sampling has not detected elevated levels of dissolved metals, organic compounds or other contaminants.

Climate Change

Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569) was issued on September 16, 2016. EO 569 recognizes the serious threat presented by climate change and directs agencies within the administration to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet greenhouse gas emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. The GHG Policy and requirements to analyze the effects of climate change through EIR review play an important role in this statewide strategy. These analyses advance proponents' understanding of a project's contribution and vulnerability to climate change.

Adaptation and Resiliency

Pursuant to the GWSA, MEPA review of projects subject to an EIR must consider the reasonably foreseeable climate change impacts and GHG emissions of projects subject to MEPA review (and effects such as predicted increases in precipitation); and (2) ensure that projects subject to MEPA take all feasible measures to avoid, minimize, or mitigate "Damage to the Environment" (as defined in the MEPA statute), including GHG emissions.

The EENF reviewed how climate change could affect the site based on projections provided in the *Massachusetts Climate Change Adaptation Report* (2011). The report indicates that by the year 2100, average annual temperature in Massachusetts is projected to rise by 5 to 10 degrees Fahrenheit (F) and precipitation will increase by 7 to 14 percent. These projections are generally consistent with data provided for the Hudson River Basin in the *Massachusetts Climate Change Projections - Statewide and for Major Drainage Basins* report prepared by the Northeast Climate Service Center, which is available on the Climate Change Clearinghouse for the Commonwealth website (www.resilientma.org). Higher temperatures are not expected to affect operations at the facility. According to the EENF, increased precipitation will not adversely impact the structural integrity of the QMMA because the solid waste to be deposited in the landfill has low permeability that will minimize infiltration. In addition, the proposed 12-inch diameter drain pipe has been sized to accommodate peak runoff from a 24-hour, 25-year storm flow from the entire site. As noted in the Scope, the Single EIR should discuss how the design storm flows compare to projected increased flows and whether the proposed drainage system can accommodate runoff and maintain groundwater levels under projected precipitation conditions.

Greenhouse Gas (GHG) Emissions

The EENF included a GHG analysis as required by the MEPA GHG Policy. The Policy requires projects to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis compared the mobile-source emissions of the Preferred Alternative in comparison to those emissions that would be generated by off-site disposal of solid waste.

Mobile-source CO_2 emissions of each alternative were estimated using the EPA's MOVES2014a emissions model. The MOVES2014a model calculates emissions factors for vehicles expressed in a volume per distance travelled. Total emissions of vehicles are estimated by applying Vehicle Miles Travelled (VMT) data. The EENF estimated that the off-site disposal alternative would require 2,800,000 VMT on an annual basis and generate 2,523 tpy of CO_2. The Preferred Alternative results in 5,600 VMT annually and will generate 5 tpy of CO_2, a 99 percent reduction compared to the off-site disposal alternative. The Preferred Alternative will also increase the site's capacity to sequester carbon by providing a vegetative cover over the landfill when upon its closure.

Construction Period

The project will continue the existing disposal practices at the facility in the discontinued portion of the quarry. The project will be constructed and operated in accordance with a Fugitive Dust Abatement Plan, which includes the use of daily cover over the landfill, application of dust suppressant in dusty areas and roadways, and trucks equipped with tailgates that minimize dust during spreading operations. Noise impacts on surrounding residents will be minimized by maintaining a 1,000 ft buffer from the QMMA and by limiting operation of trucks to the hours between 6:00 AM and 6:00 PM to minimize noise impacts to surrounding residents. Berms will be installed during construction of landfill cells to divert stormwater runoff into the existing drainage system. The Single EIR should describe all construction-period mitigation commitments in the draft Section 61 Findings.

Conclusion

The EENF documented the project's impacts and measures to avoid, minimize, and mitigate impacts. It documented baseline environmental conditions, included an alternatives analysis and identified measures to avoid, minimize and mitigate environmental impacts. Based on a review of the EENF, consultations with State Agencies and review of comment letters, I have determined that the Proponent can submit a Single EIR in lieu of a Draft and Final EIR. The Proponent should submit a Single EIR that provides updated project information and analyses as specified in the limited Scope below.

SCOPE

General

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. It should include a detailed description of the proposed project and describe any changes to the project since the filing of the EENF. The Single EIR should include updated plans to reflect any modifications to the project design. If necessary, it should provide a revised description and analysis of applicable statutory and regulatory standards and requirements, and a description of how the project will meet those standards. The Single EIR should include a list of required State permits, Financial Assistance, or other State approvals and provide an update on the status of each of these pending actions. It should clearly demonstrate that the project has undertaken all feasible measures to avoid Damage to the Environment.

The Single EIR should provide additional information of the site's drainage system under existing and proposed conditions, including a description of the stormwater and groundwater conveyance system and how it is treated before being discharged into the Hoosic River. It should review the discharge limits and monitoring requirements specified in the current NPDES permit and any changes anticipated in the permit renewal. The Single EIR should clarify whether the project will increase phosphorous levels of the facility's discharge into the Hoosic River.

Due to the long-term nature of the project, the focus of Single EIR should be on documenting the monitoring and maintenance activities that the Proponent will conduct to ensure that the project's impacts are minimized for the duration of landfill operations and the post-closure period. The Single EIR should review existing monitoring and sampling undertaken by the Proponent and describe how these and/or other measures will be adopted to monitor the effects of the QMMA. The Single EIR should clarify the design storm used to size the drain pipe for existing and projected precipitation levels and intensity of storm events.

Responses to Comments

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. The responses to comments should refer to sections of the Single EIR only to support the direct response. This directive is not intended, and shall not be construed, to enlarge the scope of the Single EIR beyond what has been expressly identified in this certificate.

Mitigation and Section 61 Findings

The Single EIR should include a separate chapter that summarizes measures to avoid, minimize and mitigate environmental impacts. The Single EIR should include draft Section 61 Findings for all State Permits required. The proposed Section 61 Findings should specify in detail all feasible measures the Proponent will take to avoid, minimize and mitigate potential environmental impacts to the maximum extent practicable. The draft Section 61 Findings should clearly identify parties responsible for funding and implementation, and the anticipated implementation schedule that will ensure mitigation is implemented when appropriate in relation to environmental impacts.

The Single EIR should include a commitment to provide a GHG self-certification to the MEPA Office at the completion of the project. It should be signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project

Circulation

The Proponent should circulate the Single EIR to those parties who commented on the EENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Proponent may circulate copies of the Single EIR to commenters in CD-ROM format or by directing commenters to a project

website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The Single EIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the Single EIR should be made available for review at the Adams Public Library.

August 2, 2019
Date

K. Theoharides
Kathleen A. Theoharides

Comments received:

07/25/2019 Berkshire Regional Planning Commission (BRPC)
07/26/2019 Massachusetts Department of Environmental Protection (MassDEP)/Western Regional Office (WERO)

KAT/AJS/ajs

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July 26, 2019

Kathleen A. Theoharides, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Alex Strysky, EEA No. 16040
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: Specialty Minerals, Inc.
Quarry Minerals Management EENF
Adams, MA

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Expanded Environmental Notification Form (EENF) submitted for the proposed Quarry Minerals Management landfill project on 260 Columbia Street in Adams (EEA #16040). The applicable MassDEP regulatory and permitting considerations regarding wastewater, air pollution, solid waste, and waste site cleanup are discussed.

I. Project Description

Specialty Minerals, Inc. (SMI) located at 260 Columbia Avenue, in Adams, proposes to establish a new on-site, solid waste disposal area for mineral solids generated by their limestone processing. The disposal area will cover a 72-acre portion of the existing quarry and receive an annual average of 310 tons per day (tpd) of mineral solid waste. As the mining/quarrying operations expand to the north on the parcel, and the existing solids disposal sites reach capacity, SMI (the Proponent) proposes to reclaim the currently active, 350 feet deep quarry by landfilling mining and processing residuals over the next 50 years. Filling will proceed in Phases (cells) of approximately 5 years intervals; interim closures and final grades of the disposal area will be loamed and seeded.

The facility will accept solely mined and processed mineral materials from the SMI processes; no other solid waste or off-site material will be disposed. The Proponent will continue to recycle as much of the residuals as markets will allow. Excess material will be disposed on-site. The landfill construction is proposed similarly to the existing three on-site disposal areas that have or will reach capacity.

As described in the EENF, the proposed disposal rate will be on average 310 tons per day (tpd) on an annual basis. Groundwater suppression and stormwater management are accomplished through pumping water from a collection area at the deepest section of the active pit to the regulated settling ponds and stormwater system. That practice will continue initially. As the fill project proceeds into the future, the deepest part of the quarry will eventually be filled with unprocessed rock material (not considered solid waste) derived from mining, to an elevation of 760 feet above mean sea level, to maintain a minimum of 4 feet separation of disposed material above the estimated high groundwater. Landfill design and stormwater management design are intended to keep stormwater from infiltrating disposed materials. A 12-inch diameter gravity collection pipe, to be installed at a later date, will collect stormwater and any groundwater and direct it to the settling ponds and subsequently discharging to the Hoosic River.

The project triggers a Mandatory Environmental Impact Report (EIR) threshold for the disposal of 150 or more tpd of new capacity at a solid waste facility. The Proponent has requested review of a Single EIR in the EENF.

The project requires a *BAW SW 01 - Site Suitability Report for a New Site Assignment* and a *BAW SW 26 New Large Landfill* from MassDEP. Each cell (phase) may also require an *Authorization to Operate* permits from MassDEP. The closure design of cells and the final closure of the landfill will also require *Corrective Action Design* permit(s). MassDEP will send a copy of the *Site Suitability* report to the Town of Adams; the project also requires approval of the proposal through a *Site Assignment* from the Adams Board of Health.

The project Proponent indicates all work is outside of wetlands jurisdictional areas and the Proponent has not proposed any changes to the surface water discharge permit.

Environmental impacts associated with this project include:

- Construction of a 72 Acres solid waste (mineral waste) landfill.

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands
310 CMR 10.00
Water Pollution Control
314 CMR 3.00
Air Pollution
310 CMR 7.00
Solid Waste
310 CMR 16.00
Bureau of Waste Site Cleanup
310 CMR 40.000

III. Permit Discussion

Bureau of Water Resources

Wetlands and Waterways
The Proponent has stated there are no impacts to wetland resource areas.

Wastewater
The Proponent has not indicated a change in permitted discharge volumes.

Bureau of Air and Waste

Air Pollution Control
The operations at the site must conform to current Air Pollution Control Regulations. The proponent should implement measures to alleviate dust, noise, and odor nuisance conditions that may occur during operation. Such measures must comply with the MassDEP's Bureau of Air and Waste Prevention (BAW) Regulations 310 CMR 7.01, 7.09, and 7.10.

Construction Equipment
MassDEP recommends the Proponent mitigate construction-period impacts of diesel emissions to the maximum extent feasible and recommends the use of diesel equipment/machinery that are fitted with pollution control devises as well as minimize excessive idling. All non-road engines shall be operated using only ultra-low sulfur diesel (ULSD) with a sulfur content of no greater than 15 ppm pursuant to 40 CFR 80.510.

Solid Waste
The proposed landfill would accept only waste mineral co-products from the SMI facility for disposal. SMI has been producing calcium carbonate material since the 1960s however, the mine operation commenced in the late 1840s. The SMI facility quarries limestone and produces precipitated calcium carbonate (PCC) by calcining lime; Fluosolids (FS) dust and pond solids, are the waste mineral co-products of this process, that are regulated as solid waste. The existing, approved waste mineral co-product landfills at the site will be exhausted within approximately two years. The Proponent estimates that an average of 310 tpd of FS dust and pond solids be disposed in the new landfill, to be located in a portion of the existing quarry; under regulation, this is considered "new capacity". The site will provide approximately 16,000,000 cubic yards of new disposal capacity.

It is correctly stated in the EENF that a *Site Assignment (BWP SW01)* permit is required. However, there is a discrepancy regarding the appropriate Authorization to Construct permit. A *BWP SW26 Authorization to Construct a Large Landfill* (greater than 250 acre-feet in volume) permit will be required. Projects of this scale and complexity are considered *Individual Rule Projects*, in accordance 310 CMR 4.05 Timely Action Schedule and Fees Provisions and subject to negotiated fees. Individual Rule Project Agreements allow MassDEP to retain specialized engineering expertise to assist MassDEP in order to fully review complex designs. In addition, a *BWP SW10 Authorization-to-Operate a Landfill* (ATO) permit(s) will be required. Upon closure of the landfill *BWP SW25 Corrective Action Design* permit(s) will also be required. It will be determined during the permitting process if MassDEP will require individual ATO and CAD permits as the Phases are constructed and closed.

MassDEP also notes that any post closure use proposed following full closure and reclamation of the site, may be subject to *Post Closure Use* permit requirements.

The proposed landfill design will be evaluated with respect to criteria contained in the Massachusetts Solid Waste regulations, i.e. the *Site Assignment* review criteria at 310 CMR 16.40(3)(a) – *Criteria for Landfill Facilities (Restricted Areas)* and 310 CMR

16.40(4) – *General Site Suitability Criteria*; as well as the *Authorization-to-Construct* (ATC) review criteria at 310 CMR 19.038 (2)(a,c&d), and the *Authorization-to-Operate* (ATO) criteria at 310 CMR 19.042.

MassDEP has identified the following issues that will be evaluated as part of the permitting process for *Site Assignment,* Facility Permits (ATC/ATO) and closure CAD.

- Setback to Residences: The Proponent states that mineral waste will only be placed in the landfill outside the 1,000-foot setback to the nearest residences (along Old Columbia Street), and that only "clean fill" (rockwaste and crusher waste) will be placed in the portion of the landfill area that is within the 1,000-foot setback to residences. The Proponent will be required to demonstrate though the application that only clean, (unprocessed) natural materials are placed within the 1,000 feet setback.

- Minimum 4-feet Separation to Groundwater: The Proponent stipulates that the base of the quarry will be filled with clean rockwaste and crusher waste to elevation 760 feet above mean sea level (MSL) and that the mineral wastes will then be placed at elevation 765 feet MSL and above. A 12-inch diameter gravity drainpipe will be installed to maintain the groundwater elevation in the base of the fill area to below 760 feet MSL; the pipe will drain stormwater and groundwater to an existing stormwater pond on SMI property located east of Rt. 8. Through the permitting process, the Proponent will be required to provide technical support that demonstrates that the proposed design will maintain a 4-feet separation to groundwater.

- Waivers/Alternative Final Cover: MassDEP has granted waivers for the existing on-site mineral co-product landfills for groundwater protection systems (310 CMR 19.114), and alternative landfill final cover design (310 CMR 19.113). The waivers were granted based on results of monitoring data having shown no apparent effect of pH on groundwater or surface water from the existing landfill areas. The Proponent proposes that the newly proposed landfill be granted these same waivers. MassDEP will evaluate this approach as part of the permit application process based upon review of all available information at the time the applications are filed.

- Stability: The Proponent includes a slope stability analysis for:
  - the proposed 1.5 to 1 (horizontal to vertical) slope of the interim northern face of the landfill, within the quarry, and
  - the proposed 2:1 slope of the final eastern and northern faces of the landfill.

  The Proponent states that the stability analyses show Factors-of-Safety (FOS) for stability of 1.4 to 1.8, greater than the proposed minimum FOS of 1.0. The existing on-site landfills are permitted for 2:1 final slopes. As part of permitting, MassDEP will require stability analyses, including specific inclusion of pond solids engineering properties.

- Nuisance dust: The Proponent, acknowledges that best management practices (BMPs) for dust control will be utilized at the landfill, including those BMPs currently used at the existing site landfills, i.e. use of daily cover material, water, and calcium chloride.

- Stormwater: MassDEP will require the stormwater control system for the landfill to meet requirements of 310 CMR 19.115.

- Financial Assurance Mechanism (FAM): As part of ATC/ATO permitting, MassDEP will require SMI to establish a FAM in accordance with 310 CMR 19.051 for closure and post-closure costs for the landfill, including the operation and maintenance of any gravity drain-pipe.

The Proponent is advised that debris generated by alteration of the site shall be disposed of at a properly licensed solid waste disposal facility, as defined at M.G.L. Chapter 111, Section 150, and in accordance with M.G.L. Chapter 40, Section 54.

Solid and Hazardous Waste Management (Contaminated Soils)
If MassDEP determines that either because of the nature of the proposed activity, the amount of the material, and/or the characteristics of the material that the material requires management as a hazardous or solid waste, then the disposition of the soils must comply with any applicable requirements pursuant to 310 CMR 30.0000, 310 CMR 16.00 or 310 CMR 19.000. In addition, reuse or disposal of the soils at a Massachusetts landfill shall comply with MassDEP COMM-97-001 *"Reuse and Disposal of Contaminated Soil at Massachusetts Landfills"* and the *"Revised Guidelines for Determining Closure Activities at Inactive Unlined Landfill Sites"*.

Greenhouse Gas Analysis
The proposed project is to establish an on-site landfill for the SMI facility with an estimated capacity of 50 years. In addition, the project will result in the reclamation and restoration of the current quarry as the operations move to the north. The Proponent has conducted a greenhouse gas emissions analyses comparing the preferred alternative of on-site disposal to removal of materials to a remote landfill.

The Proponent utilized the latest version of the EPA's Office of Transportation and Air Quality (OTAQ) Motor Vehicle Emission Simulator (MOVES2014a) and compared emissions for on-site disposal versus shipping the materials to a landfill greater than 500 miles away. In addition, the model incorporated the carbon sequestration anticipated from grass land managed following reclamation of the landfill. The results indicate the preferred alternative generates 99.9% less greenhouse gas between actual emissions and estimated sequestration.

MassDEP concurs that the preferred alternative would result in less greenhouse gas emissions then off-site disposal. The Proponent has prepared a Self-Certification committing to reduction in greenhouse gas emissions.

MassDEP encourages the Proponent as the mining project moves north, to consider reclamation options for the expanded mining area into the future.

Vulnerability and Adaptation
The Proponent has estimated a potential 14% increased precipitation and runoff anticipated due to increased precipitation from Climate Change and states the proposed stormwater pipe and system will be able to accommodate the increased flow. MassDEP recommends review of all NPDES discharge permit limits in anticipation of this increase to ensure permitted flows can accommodate the increase.

Bureau of Waste Prevention

The Massachusetts Contingency Plan (MCP) and regulation 310 CMR 40.0000 governs the cleanup of confirmed oil and hazardous material releases in Massachusetts. There are four identified confirmed release sites in the proposed work area; all have Class A Response Action Outcome Statements or Permanent Solution with No Conditions.

If oil/hazardous material contamination is encountered or a release occurs during construction activities, a Licensed Site Professional (LSP) should be retained to manage the contaminated media in compliance with the provisions of the MCP.

Spills Prevention
A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and accidental releases.

IV. Section 61 Findings

There are no Section 61 Findings submitted with the EENF. However, the Proponent acknowledges mitigation and Section 61 Findings will be included as part of permitting. MassDEP through the Solid Waste permitting process has the authority to ensure that environmental impacts and avoided, minimized and mitigated, as appropriate.

V. Other Comments/Guidance

If you have any questions regarding this comment letter, please do not hesitate to contact Catherine Skiba at (413)-755-2119.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Michael Gorski
Regional Director

cc: MEPA File

BERKSHIRE REGIONAL PLANNING COMMISSION

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July 25, 2019

Kathleen Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Alex Strysky
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Quarry Minerals Management Area, EEA# 16040

Dear Secretary Theoharides:

The Berkshire Regional Planning Commission (BRPC) hereby submits comments on the proposed Quarry Minerals Management Area (EEA# 16040) in the Town of Adams. BRPC supports the request for a Single EIR and offers the following comments for consideration as the Secretary issues a scope for the EIR.

Project Description
It is stated within the EENF that the facility is to be used solely for SMI's coproducts and rock mineral waste. However, it is not clear whether this includes SMI coproducts from other locations. The facility should be used solely for coproducts and rock mineral waste generated by SMI at their Adams facility. This should be stated clearly within the EIR.

Characterization of Pond Solids and FS Dust Coproduct Streams
The EENF states that metals content of the two coproduct streams has been determined through sampling and analysis during permitting of the Notch Road Landfill in 2003 and is included in Table 1, "FS Dust and Pond Solids Metals Content" (EENF page 3-4). The EIR should include current data rather than sixteen year old data. In addition, the table includes Phosphorus concentrations of 1,760.0ppm in Pond Solids and 440.0ppm in FS Dust. These concentrations appear to be high but no parameters are included within the EENF. The EIR should include parameters for each of the chemical elements included within the table along with an explanation of whether phosphorus levels are elevated and how this will be addressed.

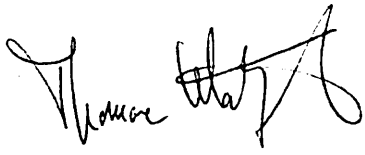
Groundwater
The EENF states that groundwater elevations will be permanently maintained below the base of the disposal area through a gravity drainage system that will prevent contact of groundwater with the coproduct material. The EIR should clarify the minimum distance between the landfill materials and the groundwater expressed in feet in addition to elevation. The design will allow gravity drainage of the Quarry area to settling ponds on the property and subsequent discharge into the Hoosic River. The EIR should clarify whether the existing design is sufficiently protective for current and anticipated weather conditions that we expect to experience with our changing climate. The EIR should clarify that the discharge is permitted under SMI's existing NPDES permit (MAR054010) and whether there will be additional impacts as a result of this project.

In addition, a draft authorization for SMI to discharge under NPDES (Permit No. MA0005991) has been issued for public comment. According to the Draft Permit, the Permittee disclosed that it currently uses, and plans to continue use of, organophosphate as an additive for the groundwater curtain well treatment system. The Draft Permit also states that the use of organophosphate may contribute phosphorus to the receiving water and EPA does not currently have information regarding phosphorus in discharges from the Facility. The EIR should clarify whether the coproducts disposed of in the Quarry Minerals Management Area will include organophosphate as a result of its use in regular operations. The EIR should further clarify whether additional levels of phosphorus would be discharged to the settling ponds as a result of this proposed project and, if applicable, what measures are being taken in order to minimize the potential risk of contamination of surface and groundwater by organophosphates.

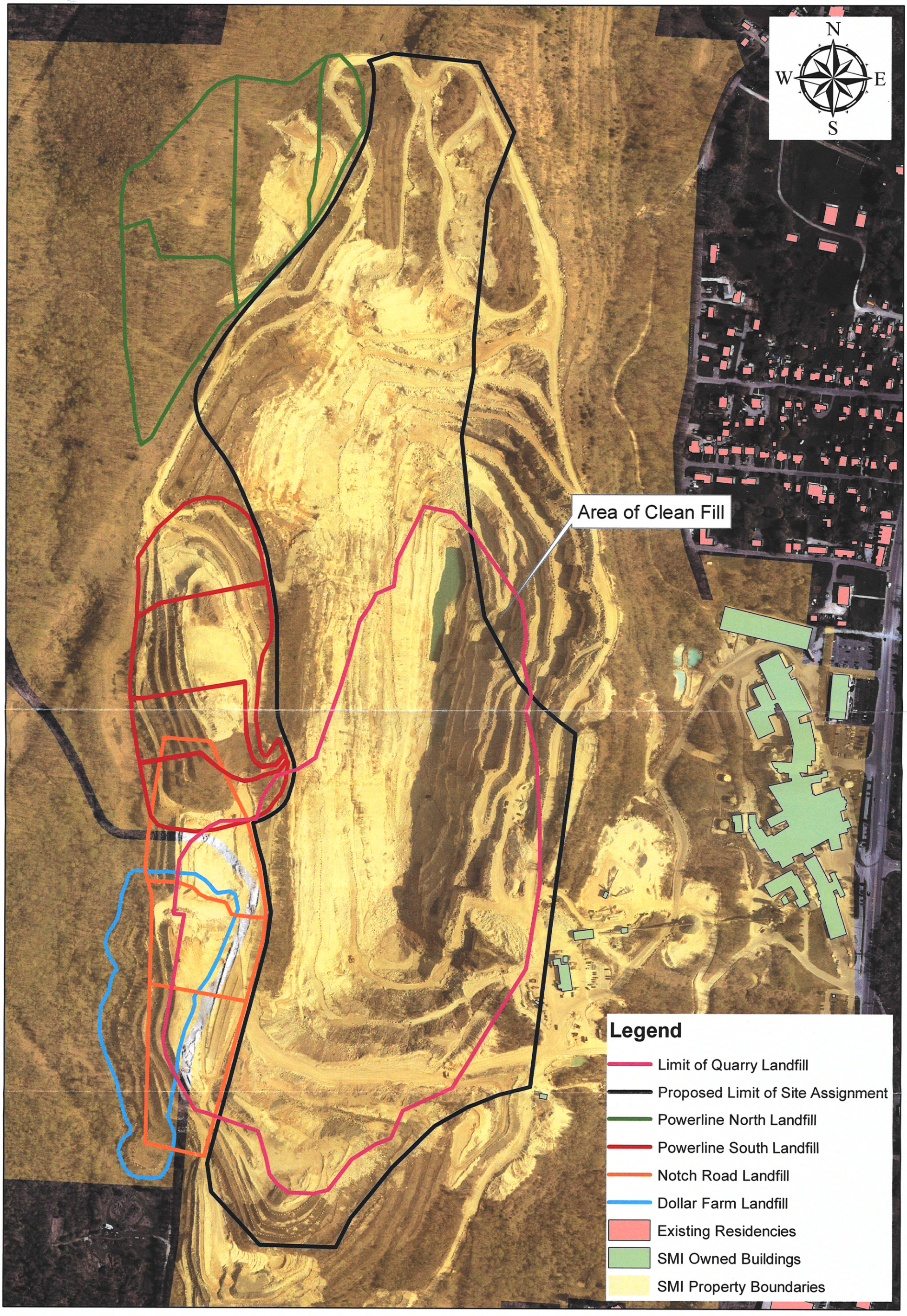
Monitoring
The EENF states that groundwater monitoring will be consistent with the monitoring program approved for SMI's existing landfills. In addition, environmental monitoring will be conducted for the 30-year post-closure period and will consist of groundwater sampling and analysis to monitor upgradient and downgradient groundwater quality. However, the EENF does not include any reference corrective action. The EIR should include more information with regard to the monitoring plan including detection monitoring, assessment monitoring and corrective action. In addition, the EIR should also include a monitoring plan for the reclamation of the area including the steps taken to plant native species, prevent the introduction of invasive species, ensure successful establishment of native plants and eradication of any invasive species.

On July 11, 2019 the BRPC Executive Committee authorized the Environmental Review Committee to summit comments to MEPA. These comments were approved by the Environmental Review Committee at their meeting on July 16, 2019.

Sincerely,



Thomas Matuszko, AICP
Executive Director



Environmental Partners GROUP
A partnership for engineering solutions.

1 inch = 380 feet

Figure 2: Aerial Map
Specialty Minerals Inc.
Adams, MA