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July 3, 2019

Gregory Aaron, P.G.
Acting Permits Section Chief
Cambria District Mining Office
Department of Environmental Protection
286 Industrial Park Road
Ebensburg, PA 15921-4119

Re: Specialty Granules LLC; Large Noncoal Surface Mining Permit Application No. 01180301; NPDES Permit Application No. PA0279617; Hamiltonban Township, Adams County; Response to Public Comments (Second Round)

Dear Mr. Aaron:

Specialty Granules LLC ("**SGI**") has carefully reviewed the public comments submitted at the hearing held on January 30, 2019 and during the period for submission of written comments that ended February 13, 2019, concerning the pending permit applications for the proposed Northern Tract Quarry at SGI's Charmian Quarry in Hamiltonban Township, Adams County. As the Department is aware, on November 12, 2018, SGI provided responses to the comments submitted at the July 23, 2018 public meeting and the related written comment period (the "**SGI First Responses**"). Although many of the issues raised in this second round of comments were addressed in the SGI First Responses and in the multiple submissions that comprise SGI's applications, out of respect for the public, SGI has undertaken the effort to prepare and submit detailed responses to the issues raised in these latest comments. In order to minimize repetition and duplication, where appropriate we have referred to the information contained in the applications and SGI First Responses.

It is the company's hope that the additional information provided in these responses will assist in understanding that SGI's proposals reflect substantial efforts to plan and pursue this operation in a manner that meets all applicable environmental regulations, protects environmental values, and minimizes and mitigates potential impacts.

Should the Department have any questions regarding these responses, please do not hesitate to contact me.

Sincerely yours,

Matthew S. McClure
Executive Director Operations

Enclosures

Cc: Dan Sammarco
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SPECIALTY GRANULES LLC
PROPOSED NORTHERN TRACT QUARRY
RESPONSES TO PUBLIC COMMENTS RECEIVED AT JANUARY 30, 2019 PUBLIC MEETING AND RELATED PERIOD FOR SUBMISSION OF WRITTEN COMMENTS

Large Noncoal Surface Mining Permit Application No. 01180301
NPDES Permit Application No. PA0279617

Submitted: July 3, 2019

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Introduction

Specialty Granules LLC ("**SGI**") is providing to the Pennsylvania Department of Environmental Protection ("**PADEP**" or "**Department**") these responses to certain public comments submitted at the hearing held on January 30, 2019 and the period for submission of written comments that ended February 13, 2019 concerning the pending permit applications for the proposed Northern Tract Quarry at SGI's Charmian Quarry in Hamiltonban Township, Adams County.

In April 2018, SGI submitted Large Noncoal Surface Mining Permit Application No. 01180301 (the "**Mining Permit Application**") and NPDES Permit Application No. PA0279617 (the "**NPDES Permit Application**") (collectively referred to as the "**Applications**"), proposing the development and mining of metabasalt minerals from an approximately 112.3 acre portion of SGI-owned property known as the "**Northern Tract**." Following provision of public notice, the Department conducted a public meeting on the Mining Permit Application at the Fairfield Firehall on July 23, 2018. The Department accepted additional written comments for an additional two weeks after the public meeting (i.e., until August 6, 2018); and some additional public comments were received after that date. On November 12, 2018, SGI provided responses to the comments submitted at the July 23, 2018 meeting and the related written comment period (the "**SGI First Responses**").

Following additional public notice provided under the procedures of both the mining and NPDES Permit regulations, PADEP conducted a further public hearing concerning the Applications on January 30, 2019, and provided an additional two week period for the submission of public comments that ended on February 13, 2019. SGI has reviewed the additional public comments presented at the January 30, 2019 hearing and associated written comment period. As stated in the SGI First Responses, SGI appreciates the questions, comments and concerns expressed by members of the public and respects their efforts to raise issues for consideration by the Department. The responses address those additional comments. SGI notes that a number of the issues raised in this second round of public comments repeat items previously raised and addressed in both the Applications and in the SGI First Responses; and thus, to avoid undue repetition, SGI is providing references to the SGI First Responses with respect to a number of those repeat items.

With this introduction, SGI respectfully offers the following responses to the public comments received at the January 30, 2019 public hearing and second round of written comments regarding the pending Applications. To facilitate the organization of these responses, SGI has compiled the comments provided by various individuals and organizations by topic. In each of the following sections, main section headings identify the general issue topic, and subheadings (e.g., 1.1, 1.2, etc.) breakout particular comments or responses. At the start of each main section (or subsection where appropriate), comments received from the public are summarized in italics, following by SGI's Response. In each instance, we have identified those providing the comments (e.g., Friends of Toms Creek/Fair Shake Environmental Legal Services ("**FOTC/Fair Shake**"). Where multiple persons provided the same comment (sometimes in form letters), we have indicated "Multiple Commenters." For ease of cross-reference, the Appendices are

identified by numbers and letters (i.e., Appendix 2-A) that tie back to the relevant sections of the responses provided below.

1. Adequacy of Public Notice

Comments:

Public Notice was Inadequate. … [B]oth 25 Pa. Code § 77.121 (public notice of filing of permit applications) and § 77.123 (public hearings-informal conferences) require that notice of a proposed noncoal surface mine and a public hearing regarding the same be published in a "newspaper of general circulation in the locality of the proposed mine." 25 Pa. Code § 77.123(b)(2). [T]he locality of the proposed mine includes both Adams County and Franklin County. … [T]he hearing notice for the January 30, 2019 public hearing, however, again failed to ensure residents of both counties were notified. (FOTC/Fair Shake)

The proposed Northern Tract development is physically located in Adams County, Hamiltonban Township. Notice was published in the Adams County Gettysburg Times. However, the notice indicated that the proposed Northern Tract is located in Blue Ridge Summit, Franklin County which is likely to result in confusion for Adams County Residents and uncertainty about the location of the proposed development. In Franklin County, the Waynesboro Record Herald did not publish notice at all. Those residents were therefore never notified even though they will be impacted by this project, most directly from facility traffic routed through Franklin County. (FOTC/Fair Shake)

Response:

PADEP published notices in the Pennsylvania Bulletin, the Gettysburg Times and the Waynesboro Record Herald announcing the "Public Hearing on Intent to Issue NPDES Permit to Specialty Granules, LLC." The Pennsylvania Bulletin notice appear at 48 Pa. Bulletin 7950 (December 29, 2018)[1] (**Appendix 1.1**). The Gettysburg Times and Record Herald notices were published in the December 24 and 31, 2018 editions of each respective paper. (**Appendix 1.2**).

Newspaper of General Circulation

Since the subject matter of the public hearing held on January 30, 2019 was the intent to issue an NPDES permit to SGI, the provision governing publication of that notice is 25 Pa. Code §92a.83. That section requires that "[n]otice of a public hearing will be published in the Pennsylvania Bulletin, and in at least one newspaper of general circulation within the geographical area of the discharge …." In this case, PADEP publish notice in not one, but two newspapers of general circulation.

The Pennsylvania Newspaper Advertising Act, 45 Pa.C.S. §302, establishes uniform definitions for such legal advertising requirements. Under the Act, a "newspaper of general circulation" is defined as "[a] newspaper issued daily, or not less than once a week, intended for general distribution and circulation, and sold at fixed prices per copy per week, per month or per annum,

[1] Available at: https://www.pabulletin.com/secure/data/vol48/48-52/2011c.html .

to subscribers and readers without regard to business, trade, profession or class." 45 Pa. C.S.A. § 101. The Gettysburg Times clearly meets the definition of a newspaper of general circulation.

FOTC/Fair Shake comments provided on February 11, 2019 do not cite any case law on the issue, and the SGI First Responses addressed the one case that was inappropriately cited in their earlier July 2018 comments.[2] The proposed Northern Tract Quarry development is located within Hamiltonban Township, Adams County. The largest newspaper of general circulation published in Adams County is the Gettysburg Times, headquartered in the county seat of Adams County just 12 road miles from the Northern Tract site. FOTC/Fair Shake maintain that the notice should instead have been published in a newspaper published in Waynesboro, Franklin County, but the fact is that the notice was published in the Waynesboro Record Herald.

Adequacy of Notice Content

FOTC/Fair Shake assert that the notice "indicated that the proposed Northern Tract is located in Blue Ridge Summit, Franklin County which is likely to result in confusion for Adams County Residents …." FOTC/Fair Shake misstate the notice's contents. The published notice follows the prescribed contents set forth in §92a.83. It sets forth, among other items, the name and address of the agency holding the hearing (PADEP), the name and mailing address of SGI ("1455 Old Waynesboro Road, Blue Ridge Summit, PA 17214"), the name of the waterway that would receive the discharge, information regarding the time and location of the hearing and the purpose of the hearing, and where further information can be obtained. Indeed, that notice goes beyond the regulatory minimums by providing the latitude and longitude of the proposed discharges, and references to locations in relation to local roadways. The claim by FOTC/Fair Shake that recitation of SGI's postal service mailing address (which refers to Blue Ridge Summit) is likely to result in confusion for Adams County residents is baseless, given that it is the official mailing address of the mining facility subject to the permit, and given the prominence of the SGI operations as the largest facility and employer in the region, the clear recitation that the subject matter of the hearing involved a the receiving waters of Tom's Creek, and the location of the hearing in Fairfield, the center of Hamiltonban Township, Adams County.

[2] FOTC/Fair Shake's previous comments cited to the Environmental Hearing Board's decision in *Snyder Twp. Residents for Adequate Water Supplies v. DEP*, 1998 Environ. LEXIS 189, Docket No. 85-022-G (Adjudication, Dec. 12, 1988), a case which construed the requirements of 25 Pa. Code §86.31 relating to publication of coal mining application notices in a newspaper of general circulation. In that case, the EHB ***rejected*** the citizen group claims publication of notice of a coal mining application was defective. Appellants had argued that the mining application involved a site in Jefferson County, and that publication of notice in the DuBois Courier Express (published in Clearfield County) was not appropriate in terms of meeting the requirement for publishing in a newspaper of general circulation in the locality of the mine. The DuBois paper was published about 12 road miles from the mine site. Although the appellants pointed to another paper as being published closer to the site, the EHB found that the appellants had not proven that publication in the DuBois paper was incorrect.

2. Hydrologic Impacts

Comments: Mine Expansion Will Impermissibly Alter the Hydrology of the Watershed. The Princeton Hydro Report also concludes that SGI's own analysis indicates that the hydrological changes caused by Mine Expansion pose a direct threat to the wetlands and resident biota. (FOTC/Fair Shake)

SGI reports in Module 8-14 that possible hydrological consequences will occur as a result of mining activities on the permit area and the adjacent area (includes Tom's Creek). There is a potential for water loss as a result of both the reduction in the run-off area (watershed) and the predicted decrease in elevation of the water table (especially in the western edge of Wetland D) adjacent to Wetland D caused by the dewatering of the proposed Northern Tract Quarry. Such changes in hydrology pose a direct threat to the wetlands and resident biota. (Princeton Hydro)

SGI emphasizes the lack of permeability of greenstone and metabasalt in the area. This indicates that wells in the area may be affected if fractured, potentially as a result of blasting; there is already poor permeability resulting in poor yields for wells thus making them more sensitive to change. Disturbance by blasting and the existence of fault lines. fissures and cracks could result in leaching of contaminants that might affect not just Toms Creek, but also water wells. (Princeton Hydro)

The size of the HQ watershed is "inflated." … To use this large (3000 acre) acreage of an exaggerated watershed for comparison to impacts to the 85 quarry acres is invalid. (Unidentified Commenter[3])

The SGI hydrology analysis lacked any measurement of stream volume. … If the resulting volume of water within the HQ portion is small, then any amount of pollution will damage it. (Unidentified Commenter)

Response:

Issues associated with hydrology and hydrologic impacts were addressed at some length in Section 1 of the SGI First Responses.

Notably, the comments submitted by Princeton Hydro which speculate concerning hydrogeologic and blasting impacts, were prepared by an individual with no credentials in the field of geology or hydrogeology, and the comments are not supported by data, modeling or experience in the relevant formation. In contrast, the analyses provided in SGI's Applications and previous responses reflect the work of Pennsylvania-licensed professional geologists with extensive experience, whose analyses concerning lack of expected impacts to groundwater or stream flow are supported by data, modeling, and experience from the operation over many years of the Pitts Quarry.

The watershed area of Tom's Creek used in the SGI analysis is not "inflated" or "exaggerated;" the watershed area discussed in the SGI First Responses reflects the area calculated by the StreamStats application provided by the U.S. Geological Survey for the portion of Tom's Creek

[3] One comment received by PADEP as forwarded to SGI did not contain any information identifying the individual or organization who submitted the comment, and is referred to in this response as "Unidentified Commenter."

upstream of a point near the intersection of Lower Gum Springs Road and Iron Springs Road very near the northeast corner of the Northern Tract. That StreamStats output is provided as part of Appendix 2.2 to the SGI First Responses, and shows a watershed area of 4.82 square miles, which equates to ~3,080 acres.

SGI First Responses provided responsive discussions of (1) SGI's protective blasting practices and the reasons such blasting is not anticipated to impact the hydrology of Tom's Creek or area groundwater in Sections 4.5-4.6; (2) impacts to wetland hydrology including Wetland D in Section 1.2; and (3) actual stream flow measurements on Tom's Creek in Section 2.3.

3. Water Quality Impacts on Tom's Creek

3.1 Improbability of Discharges to Tom's Creek

The design and operation of the proposed Northern Tract stormwater facilities make any discharge to Tom's Creek highly improbable. As set forth in the Applications and the SGI First Responses, SGI will construct and operate stormwater collection ponds at the Northern Tract (the "**NT Ponds**") with a capacity to hold (without discharge) the runoff from the equivalent of a 100-year, 24-hour storm from the entire contributory drainage area to the ponds. As further explained in the SGI First Responses, the contributory drainage area to both NT Pond 1 and 2 will be reduced after the initial development period. As the Northern Tract quarry is created and mined, the area within the quarry footprint will no longer drain to those ponds. Instead, that quarry footprint itself will collect water, which will be stored and pumped directly to the Pitts Quarry or the Lower Mill Pond system. The resulting reduction in the drainage area to the NT Ponds means that their available volume will be able to handle even larger and more extreme events than the initial starting point of a 100-year storm.

As the following calculations indicate, when the Northern Tract quarry is fully developed, both NT Ponds will be able to retain the runoff volume from greater than the 1,000-year, 24-hour storm event. NT Pond 1 is predicted to be able to handle up to a 500-year, 24-hour storm within just 2-3 years following commencement of Northern Tract quarry development, and to achieve full reduction in drainage area by the end of the first 10 years of operation. NT Pond 2 is anticipated to be able to handle up to a 500-year storm within approximately 10 years, and its drainage area will continue to be reduced in roughly equal increments over 20-30 years of operation.

Pond	*Initial Drainage Area (acres)*	*NOAA 100 Yr./24 Hr. Design Storm (in inches)**	*Final Drainage Area (acres)*	*Drainage Area Reduction*	*Final Retention Capacity (in precipitation inches)*	*NOAA 200 / 500 / 1000 Yr./24 Hr. Storm (in Inches)**
NT Pond 1	18.4	8.03	5.9	68%	25.04	9.41 / 11.6 / 13.7
NT Pond 2	28.2	8.03	13.7	51%	16.53	

** Source: NOAA Atlas 14, **Appendix 3.1**.*

The key point is that discharges from the Northern Tract to Tom's Creek are highly improbable, and become even more improbable as quarry development progresses. That chance decreases from a 1-in-100 risk of discharge in any year at the beginning, to less than 1-in-1000 risk of discharge in any year after full development. If such a rare storm event were to strike the Tom's Creek watershed sometime during the life of the Northern Tract Quarry, the impact on the stream from uncontrolled runoff across the entire watershed (roads, farm fields, etc.) would be overwhelming compared to the controlled discharge from the NT Ponds, since even during such a storm event the NT Ponds would have captured and retained the vast majority of runoff from the NT area.

3.2 Water Quality Monitoring and Parameters Tested

Comments:

[Based on SGI's past operations, they anticipate Titanium, Barium, Nitrogen, Nitrates or Color would be present, but fail to actually test for those same parameters in the stormwater runoff. (FOTC/Fair Shake)

SGI notes that aluminum, nitrogen, and iron were found in stormwater runoff at their active Pitts Quarry and could likely end up in Tom's Creek if the Northern Tract is disturbed for expansion. (Princeton Hydro)

SGI did not show any kind of macroinvertebrate or fish surveys to indicate any species presence in Toms Creek, just the 2 monitoring samples that only tested for limited parameters. (Princeton Hydro)

SGI indicates that the selected pollutants above (Figure 5) have been detected in "at least one" sample of stormwater runoff. However in the revised modules (8.1(a)), water tests are included but do not show tests for the pollutants that were marked as present in their other quarry such as Titanium, Barium, Nitrogen, Nitrates, or Color. In section 8.4 of revised modules (12/2014), it is reported as no contamination having occurred at the West Ridge and Pitts Quarry. SGI indicates "natural ranges" of these pollutants are occurring with no measured values. SGI also continually asserts that these pollutants are from agricultural usage, but there is no agricultural activity within the area. The source of the pollutants is unclear, since SGI is not located in an area with much agriculture. (Princeton Hydro)

SGI is not testing the health of the streams. … [O]ne appropriate inexpensive measure would be to do regular macroinvertebrate counts…. DEP should do this testing upstream and downstream of every place SGI discharges, both for Tom's Creek and the Miney's Branch. …and every place SGI disturbs the runoff before it goes into Tom's Creek. There should be a baseline test done before any disturbance of Pine Hill. All testing has to be done by people independent of SGI. (C. Frost)

SGI states that its plans will protect Tom's Creek "under normal operating conditions." PADEP should require that SGI not increase either storm water runoff or suspended solids in Tom's Creek under <u>any</u> circumstances. (P. Hoff/E. Hoff)

Over the years, I believe the health of the stream has worsened…. I'm afraid approval of SGI's permit will be a disaster to our stream. (J. Strahler)

Testing of SGI's storm water discharge must include tests for metals and other harmful pollutants such as copper, asbestos, selenium, titanium, barium nitrogen, nitrates, color, etc. (P. Shivers/N. Shivers)

Response:

(a) Parameters Addressed in Previous Sampling

With respect to sampling and monitoring of constituents in stormwater runoff from the Charmian facility, SGI performed effluent characterization as part of the applications previously submitted to PADEP for NPDES Permit No. PA0009059, which governs discharges from the Lower Mill Pond system. As part of that process, SGI has sampled the effluent from Outfall 001 for a number of parameters, including total suspended solids, chemical oxygen demand, biological oxygen demand, ammonia, total organic carbon, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, and phenols. With a few exceptions, those results were "N.D" (non-detect). Consistent with applicable regulations and guidance to NPDES permit writers, PADEP selected the parameters to be monitored on a regular basis based upon a "reasonable potential analysis."

(b) Results from Previous Instream Water Quality Sampling

Princeton Hydro claims that SGI has provided just two water quality monitoring samples. To the contrary, SGI previously provided as part of its Applications and in Appendix 2.2 to the SGI First Responses: (1) the results from samples of stormwater at the SGI site; and (2) the results from 7 years of annual instream water quality sampling in Tom's Creek. More recently, AECOM completed an eighth year of water quality sampling in Tom's Creek, the results from which are provided in **Appendix 3.2** to these responses. In addition, SGI conducts quarterly sampling of discharges and instream concentrations on Miney Branch, in Tom's Creek, and in springs and unnamed tributaries across the Charmian facility, the results of which are provided in the publicly-available quarterly discharge monitoring reports ("DMRs") submitted to PADEP.

(c) Macroinvertebrate Testing

The request in comments for some form of ongoing macroinvertebrate sampling in Tom's Creek is not warranted. Macroinvertebrate sampling is not required by any applicable regulatory provision or PADEP guidance. In this case, SGI is not proposing to discharge to Tom's Creek except in the improbable event of an extreme (>100 to 1000 year) storm (see discussion in **Section 3.1** above). Macroinvertebrate samples conducted to date on Tom's Creek (including sampling conducted by consultants cited by FOTC and studies submitted by SGI) do not indicate any impacts associated with SGI's long-standing and ongoing operations.

3.3 Specific Parameters

Comments:

[C]opper is large component of SGI's processing and is present in the byproducts that end up in the nearby waterways, even if first being discharged into a retaining pond.

Copper is used to kill algae and prevent it from growing on the shingles produced from granules mined at this facility. Copper is a known highly toxic substance to more than algae, but also fish and other aquatic organisms. Any introduction of copper into the environment would be significantly detrimental to the health of the ecosystem with a stream of high quality. (Princeton Hydro)

A specific pollutant that SGI noted to be present in their adjacent Pitts Quarry is Selenium. They estimate that <0.01 mg/L (or <10 µg/L) was present. EPA (2002) determined Mn, Fe, Al, and Se can become further concentrated in stream sediments, and Se bioaccumulates in organisms. … Without any background sampling on biodiversity in Toms Creek or its unnamed tributaries, degradation from harmful pollutants like Se will not be accurately quantified. "Mountaintop mining (MTM) affects chemical, physical, and hydrological properties of receiving streams, but the long-term consequences for fish-assemblage structure and function are poorly understood." (Princeton Hydro)

Our drinking water has E-Coli now with copper and many other things. (S. Holbrook - Sierra Club/FOTC Petition)

SGI will cause pollution of an HQ stream with sediment which will carry some percentage of toxic asbestos and change the stream's bottom contours. (Unidentified Commenter)

Response:

(a) Copper

Princeton Hydro makes the broad claim that copper is a large component of SGI's processing and that it is used to prevent algae from growing on shingles. While it is true that one of SGI's products is Copper Color Guard®, a shingle material that resists algae, that material is not produced, and has never been produced, at the SGI Charmian facility. Currently, only the SGI facility in Missouri produces Copper Color Guard®.

As part of the most recent renewal of NPDES Permit No. PA0009059, which governs discharges from the Lower Mill Pond system, SGI provided results of sampling of the effluent from Outfall 001 for a variety of parameters, including copper. The result was 0.0035 mg/L[4] (which equates to 3.5 micrograms per liter ("**µg/L**")). By way of comparison, the fish and aquatic life instream water quality criterion for copper under the formula set forth in Table 5 of 25 Pa. Code §93.8c is 4,236 µg/L, and the drinking water maximum contaminant level goal for copper is 1300 µg/L. Thus, the measured copper concentration in Outfall 001 (which reflects runoff from the entire Charmian site) was 3 orders of magnitude below the water quality criterion for copper. As stated in PADEP's Fact Sheet accompanying the issuance of NPDES Permit No. PA0009059: "The measured concentrations were compared to screening values in order to determine the potential for each constituent to contribute to a violation of the water quality standard in the receiving stream. The screening values utilized are the Criteria Maximum Concentration (CMC) and/or the Criteria Continuous Concentration (CCC). The measured

[4] See Letter from L. D. Barra, Skelly and Loy to R. Martin, Cambria District Mining Office, dated April 27, 2016, Application Section B, Item 27.

concentrations for copper … did not exceed the CMC or CCC screening values." (footnotes omitted).

At PADEP's request, SGI has been conducting additional monitoring at various locations on the Charmian facility since May of 2017. Five of those monitoring points (4 in Tom's Creek and 3 on tributary streams on or adjacent to the SGI property) are monitored quarterly for copper. Samples were taken monthly from May 2017 through April 2018, and quarterly thereafter. Of 105 samples taken, all but three were non-detect for copper. The three samples with detections indicated the following concentrations:

Date	***Sample Location***	***Total Copper Concentration (µg/L)***
8/29/2017	SS-9 (UNT above Pitts Pond #1 Outfall)	7.5
8/29/2017	SS-10 (UNT below Pitts Pond # 1 Outfall	7.1
9/7/2018	SS-9 (UNT above Pitts Pond #1 Outfall)	5.6

Again, the reported instream concentrations are orders of magnitude below applicable water quality criteria. Further, at the time of these sample detections, no water was being discharged from Pitts Pond #1.

(b) Selenium

Contrary to Princeton Hydro's claim, SGI has never indicated that selenium was present at Pitts Quarry or anywhere on the Charmian property. In fact, sampling of effluent from Outfall 001 previously provided to PADEP found ***no detection*** of selenium at a Reporting Detection Limit of 0.0020 mg/L.[5]

(c) Asbestos

Please see the discussion below in **Section 9.3** of these responses below.

(d) E. coli

One comment claims the presence of E. coli (a particular bacteria) in drinking water. Such bacteria have nothing to do with the SGI Charmian operations.

SGI notes that previous background monitoring of Tom's Creek (where SGI currently has no discharges) has shown the presence of E. coli, fecal coliform and total coliform bacteria in samples taken both upstream and downstream of SGI (see **Appendix 2.1** to the SGI First Responses). Notably, elevated E. coli and other bacteria levels were evidenced at monitoring

[5] See Letter from L. D. Barra, Skelly and Loy to R. Martin, Cambria District Mining Office, dated April 27, 2016, Laboratory Analyses of ALS Environmental, Report ID 2164055 – 8/16/2016.

points TC-6, TC-7, TC-8 and TC-9, above discharges from SGI. The suspected sources of such bacteria in Tom's Creek are improperly placed and maintained residential septic systems or livestock in proximity to the stream. The only septic systems on the SGI facilities are within the Miney Branch watershed and are fully permitted; and SGI does not conduct any operations that involve the generation of bacteria in the Tom's Creek watershed.

3.4 Impacts on Tom's Creek of Transferring Stormwater from NT to Lower Mill Pond System and Miney Branch

Comments:

Watershed based nutrient loading is often times the largest contributor of nutrients and sediments to the receiving stream. … For the purpose of calculating the watershed based nutrient load Princeton Hydro utilized the Unit Area l Loading (UAL) approach. … Under the transitional analysis. Loading to Tom's Creek is shown to be reduced as a result of redirection of surface water stormflow to Pitts Quarry which will subsequently be discharged to Miney Branch. An additional load of 240.79 kg/yr of nitrogen. 8.26 kg/yr of phosphorus and 41,277.97 kg/yr of sediment may be discharged to Miney Branch as a result of the transitional operation. … Under the operational mine analysis. loading to Tom's Creek was again seen as reduced, primarily as the result of re-directing inflow outside of the watershed to Miney Branch. Loading to Miney Branch. under the active mining scenario, is estimated to increase nitrogen by 228.07 kg/yr. phosphorus by 9.44 kg/yr and sediment by 35,046.03 kg/yr. (Princeton Hydro)

Though it appears that the pollutant load decreases as the landscape changes due to mine expansion, the underlying cause of load reduction is the issue for concern. There is less nutrient loading not because the amount of pollutant decreases, but because the water that conveys the pollutants is being diverted along the landscape differently. Tom's Creek itself is receiving less water from runoff, which is an indication of a drastic overall hydrology change to the watershed. If the flow of Tom's Creek is jeopardized by diverting the water the creek would normally receive to retention ponds, then the habitat that supports migratory fish and other undocumented aquatic life will suffer due to lack of habitat. Further, any receiving waters for the retention ponds will experience increased pollutant loads.

SGI should identify where the water would go and how much water will be diverted to the retention pond and Miney Branch that would result in this change in nutrient loading to Tom's Creek. (FOTC/Fair Shake; Princeton Hydro)

Response:

Princeton Hydro attempts to posit an impact on Tom's Creek premised upon a speculative calculation of the "transfer" of nutrient loadings from Tom's Creek to Miney Branch. Princeton Hydro claims that its theoretical calculation of a reduction in nitrogen and phosphorus loadings signals a "drastic hydrology change to the watershed". This is unsupported by actual instream data and the small portion of the Tom's Creek watershed that the Northern Tract area actually represents.

The actual data from instream monitoring of Tom's Creek, up and downstream, indicate that the Northern Tract area is not currently a significant source of nutrients to Tom's Creek The results of multiple years of sampling conducted by AECOM (reported in **Appendix 2.2** of the SGI First Response) provide nitrogen and phosphorus concentrations measured over the past 8 years. A comparison may be made of results from monitoring station TC-7 (Tom's Creek upstream of Northern Tract limit) with TC-5 (Tom's Creek near the intersection of Gum Springs Road and Iron Springs Road – at the downstream limit of Northern Tract). Over the past 8 years, Phosphorous results were identical at these two stations for 8 of the 10 samples. Nitrogen results were typically slightly higher for at TC-5 than TC-7, but the difference only ranged from 0.05 – 0.13 mg/L across the 9 samples, indicating at best only a modest addition of nutrients from either side of the Tom's Creek between TC-7 and TC-5. Notably, in 2018, the reverse was true, with a total Nitrogen concentration at the upstream TC-7 site (0.86 mg/L) that was nearly double that below the Northern Tract area at TC-5 (0.44 mg/L). In all cases, the concentrations of Phosphorus and Nitrogen in Tom's Creek were low, reflective of a typical upper watershed area. Thus, Princeton Hydro's professed concern regarding nutrient loading transfer appears unfounded.

Princeton Hydro cannot even theoretically claim that reducing nutrient loads to Tom's Creek results in a lowering of Tom's Creek water quality. Simply put, reducing potential pollutant discharges is not a path to "degradation."

The Princeton Hydro analysis entirely skips over the fact that the entire Northern Tract area of approximately 90 acres is just a small fraction of the 3000 acres of creek watershed area as calculated at a point just downgradient of the Northern Tract. It is disingenuous to ascribe conclusory and alarmist terms such as "drastic" to what is at best a 3% change in contributing watershed, particularly where such a small percentage value is below the measurement accuracy range of a typical stream gage.

To the extent that Princeton Hydro is attempting to express a concern that the transfer of stormwater from a portion of the Northern Tract to the Lower Mill Pond system will result in an increase in nutrient loadings to the Miney Branch, the information from monitoring of Tom's Creek indicates that the existing nutrient "loading" in stormwater runoff from the Northern Tract has no discernable impact on the high quality waters of Tom's Creek. The transfer of that non-impactful stormwater "loading" to Miney Branch under a process that provides for treatment of the stormwater (which Princeton Hydro acknowledges would remove a portion of the nutrients) should likewise have no adverse impact on Miney Branch.

3.5 Other Impacts on Tom's Creek

Comments:

The plans to expand the mining would produce more risks and possibly increase the discharge of suspended solids into Tom's Creek. (D. Swope)

This project will add to the watershed stresses that have already resulted in documented water quality impairments. There will be an increase in runoff, soil erosion, and pollutant

transport as a result of this development. As noted, the site's native soils are particularly sensitive to alteration and effects of development. Given the magnitude of this development, the projected reductions in stormwater recharge and infiltration will have drastic adverse impacts on the downstream wetlands and streams, further compromising their ecological services and functions. (Princeton Hydro)

The Northern Tract pond is intended to primarily serve as runoff control during initial phase on site development. SGI states in the Response to Public Comments that it is meant to collect run-off from 43.4 acres of a 90-acre watershed, nearly half of all runoff that normally goes to Toms Creek. This represents a significant change in hydrology. which is not compliant with Chapter 93 HQ water protections. Once the development of the proposed Northern Tract is complete, the collection ditches that are built to convey stormwater to the ponds and from the Northern Tract Pond to Pitts Quarry will be eliminated so runoff will drain just into Pitts Quarry instead of into Toms Creek. This creates a long-term impact to Toms Creek and nearby wetlands by eliminating that runoff. (Princeton Hydro)

Response:

Without citation to any facts or studies, Princeton Hydro makes the assertion that unnamed watershed stresses have already resulted in "water quality impairments" to Tom's Creek. This claim, by a consultant engaged by FOTC, stands in contrast to the claims made by FOTC that Tom's Creek is pristine and qualifies as an exceptional value ("EV") water. The studies and supporting information submitted as part of SGI's Applications indicate no degradation or impact to Tom's Creek from SGI's current or future operations.

The alleged hydrologic, stormwater recharge and wetlands hydrology impacts vaguely asserted by Princeton Hydro were previously addressed in the Applications and in the SGI First Responses. Princeton Hydro misconstrues the information in the SGI First Responses. Of the area within the Northern Tract, collection ditches CD-1 and CD-2 will collect and convey water from approximately 43.4 acres to the Pitts Quarry, and NT Ponds 1 and 2 will collect and manage water from approximately 46.6 acres (for a total of 90 acres controlled by these stormwater features). But those 90 areas lie within a watershed of Tom's Creek that contains more than ***3,000 acres***. (See SGI First Responses, **Appendix 2.2**). The 90 acres subject to stormwater controls comprise just 3 percent of the watershed area. Princeton Hydro's claim of profound impact is simply not supported.

3.6 Non-Discharge Alternatives Analysis / Measures to Avoid or Reduce Risk of Discharge to Tom's Creek

Comments:

The Capacity of SGI's Discharge Basins is Inadequate to Ensure Protection of Tom's Creek. (FOTC/Fair Shake)

The proposed stormwater management measures are not enough to mitigate negative impacts on the hydrologic, water quality. and ecological properties of the affected waterways and wetlands. This in turn will impact and compromise Tom 's Creek, a C1 stream of high quality for cold water fish and migratory fish.

SGI has a capacity problem with their ponds…. [T]he system of stormwater ponds throughout SGI is also inadequate…stormwater is going to inundate Tom's Creek. That the pumps that they are saying are going to be used to pump the stormwater ponds for another expansion into the existing pond system, those could fail. And we will have the green turbid water flowing into Tom's Creek, which is a high quality stream.

[W]hat they mean by feasible is they mean profitable. ... It's probably going to make them more money if they tear down a mountain than if they opened up another quarry in their almost 1400 acres of land. (S. Rogers)

[W]hy should SGI ever have to dump into Tom's Creek? Why not get a big enough pump or pumps to make sure it never has to do this. (C. Frost)

There is some concern about run off over flowing from the holding ponds into Tom's Creek…. I'd like to suggest each pond should have 2 pumps… I'd also suggest…a spare bowl assembly for each pump. (L. Hartlaub)

SGI should move the quarry to a different location within the land it owns or on which it has options (Unidentified Commenter)

Response:

(a) Non-Discharge Alternative Criteria

As explained in Section 2.2(c) of the SGI First Responses, for discharges to HQ waters like Tom's Creek, 25 Pa. Code §93.4c(b)(1) requires that applicants evaluate non-discharge alternatives and determine if such non-discharge alternatives are available, "environmentally sound and cost-effective when compared with the cost of the proposed discharge." If a non-discharge alternative is not available, environmentally sound, and cost-effective, then any discharge must be controlled using the best available combination of cost-effective technologies (commonly referred to as "ABACT").

SGI's Application detailed the evaluation of all potential non-discharge alternatives, and found that while a design could be formulated that would make a discharge to Tom's Creek highly improbable (that is, the design that SGI has proposed to implement as described in **Section 3.1** above), no alternatives were available that would totally preclude any potential discharge under all extreme and hypothetical circumstances. SGI's analysis went on to explain the selection of the best available combination of cost-effective technologies.

(b) Capacity and Adequacy of the NT Ponds

With regard to the capacity and adequacy of the NT Ponds, please refer to the discussion above in **Section 3.1**, the detailed design information submitted as part of the Applications, and the information in the SGI First Responses.

(c) Capacity and Adequacy of the NT Pump System and Other Storage Options

Another point explained in the SGI First Responses and elsewhere is that the NT ponds are not the only feature being used to store stormwater and avoid discharges to Toms Creek. As

indicated in the SGI First Responses (pg. 24), although Pitts Quarry is currently operational, SGI can use (and has used) the lower level of that quarry for temporary storage of stormwater. As the Northern Tract Quarry comes on line, the quarry will become available for stormwater storage, providing even greater capacity should the need arise.

From the very beginning of operations there will be pumps that are available to drain the NT Ponds into the Pitts Quarry should more storage capacity be necessary above the 100-year storm baseline capacity. These pumps are designed to run using co-located diesel generators, so they can be run even in times of power outages.

As explained in Module 13 of the Mining Application, NT Pond No. 1 will be equipped with variable rate pumps capable of pumping a range from 400 gallons per minute (gpm) to 1,000 gpm and NT Pond No. 2 be equipped with pumps capable of pumping approximately 650 gpm to 1,800 gpm. Thus, the total pumping rate from NT Ponds 1 and 2 would range from 1,050 gpm to 2,800 gpm.

The pumping rate from NT Ponds 1 and 2 is not simply a matter of pump capacity. In managing water within such an impoundment, drawdown must be controlled to maintain impoundment stability, as overly rapid elevation changes can have adverse impacts. Accordingly, drawdown rates are constrained by specifications in the PADEP design manual. The pumps planned for the NT Ponds are designed with those engineering constraints in mind.

SGI is committed to operating the pumping system controlling transfers from the NT Ponds to the Lower Mill Pond system in a manner that optimizes the availability of the NT Ponds to manage subsequent storms while at the same time maintaining flow rates through the Lower Mill Pond system that facilitate effective settlement and treatment.

(d) Consideration of Alternative Quarry Locations

This comment suggesting that alternative quarry locations could be developed was addressed in the Anti-degradation Module of the Application. Simply put, SGI does not own or have options on any other land within this metabasalt geology that would be suitable for development of a new quarry, and we are not aware of any sites with suitable geology, support facilities and associated infrastructure to support such an alternative facility.

3.7 SGI's Commitment and Efficacy of Best Practices

Comments:

I do not believe that SGI's current best practices will protect the Tom's Creek environment. … Any reasonable person can juxtapose the health of Miney's Branch and Tom's Creek and understand the current mining practices are not going to protect that environment. (L. Whitcomb)

I sat down with him [president of SGI] … [and asked him] can you mine Pine Hill without destroying that environment and the answer was no. (L. Whitcomb)

Response:

In the past seven years, SGI has not had any discharges to Tom's Creek from its adjacent Pitts Quarry system, despite having a series of extreme storms in 2018 and several prior years. The avoiding of Tom's Creek discharges was not an accident or gift of nature – it was premised on sound engineering and diligent operations by dedicated staff who work hard to protect Tom's Creek.

The statement ascribed by one commenter to a former president of SGI, to the effect that the Northern Tract cannot be mined without destroying the environment, is untrue and is contradicted by the multitude of studies, analyses and measures provided in the Applications. Mining does involve the removal of minerals, and the alteration of the immediate area being mined. But SGI has gone above and beyond regulatory requirements to assure that the environment beyond the Northern Tract, including most particularly Tom's Creek, is protected.

3.8 Impact on Wetlands

Comments:

SGI's own indication to possibly remove wetlands C and D and to breach Northern Tract Pond 2 due to diminishment of tributary watershed assert that discharges will likely occur. Not just in the event of >100-year storm. Runoff being drained to various sediment ponds at different points on the property alters the hydrology of the area for more than just the short-term and will maintain the negative impact to the Toms Creek watershed well beyond the initial phases of proposed development. (Princeton Hydro)

SGI will cause probable serious harm during drought months of several wetlands (two of which are nationally protected) if water volume of the east and east tributaries are impacted. (Unidentified Commenter)

Response:

Sections 1.2, **2.2**, and **10.1** of the SGI First Responses addressed issues related to wetland impacts. Contrary to Princeton Hydro's statement, SGI has never indicated that it would "possibly remove wetlands C and D" or that it would breach NT Pond 2. The comment provided by the Unidentified Commenter references harm to wetlands, without any identification of the location referenced wetlands or any support for the contention they will be impacted during droughts.

As reflected in the analysis provided in the Applications and the SGI First Response, no direct or indirect impacts are anticipated to four of the five wetlands within or adjacent to the permit area. Although Module 14 acknowledges the potential for indirect impacts to Wetland D as a result of the project, Module 14 notes that Wetland D is an expansive habitat extending well beyond the Northern Tract permit boundary and hydrologic sustenance from other sources of runoff area outside of the Northern Tract permit boundary are expected to ameliorate the potential effects of Northern Tract quarry development. Drawing from the experience in operation of the adjacent Pitts Quarry, it is noted that no impacts have been reported to any of the wetlands as a result of the adjacent Pitts Quarry operations; and similarly no significant

wetlands impacts are anticipated from the Northern Tract quarry operations. Ongoing monitoring of Wetland D will be implemented as described in the Applications, and if changes in the hydrologic conditions are observed, SGI will initiate additional monitoring, and work with PADEP to develop and implement a mitigation strategy if required.

3.9 Impact on Tom's Creek Flow & Temperature

Comments:

The project will compromise the health of the HQ segment during summer months which carries a low volume of water under normal circumstances. Restricting normal water runoff to this section would lower the volume of the stream and increase the temperature. (Unidentified Commenter)

Response:

Section 2.3 of the SGI First Responses explains the reasons why development of the Northern Tract Quarry is not expected to have any measurable impact on the flow in Tom's Creek, either during normal or drought periods.

The Commenter contends that development of the Northern Tract would have a negative impact on stream temperature, but no support or analysis is offered for that assertion. Stream temperature, particularly during the summer low flow periods, is influenced by several factors, including (1) stream baseflow (which coming from groundwater, contributes cooler water); (2) thermal gain from sunshine and interaction with air temperature; (3) land runoff during storms (which during the summer tends to be warmer due to precipitation temperature mimicking air temperature with additional warmth gained as stormwater flows over land); and (4) tempering by tree shade and canopy cover.

Given these factors, the Northern Tract project's design includes several moderating features. First, the SGI project provides for the maintenance of a forested buffer between the mining operation and Tom's Creek, creating a continuous canopy of shade in a wide strip between the operations and stream. Second, the Northern Tract will only discharge to Tom's Creek during the equivalent of greater than 100-year storms, when the temperature of the discharge will be similar to the runoff from all areas of the watershed.

3.10 Water Quality Classification of Tom's Creek

Comments:

[Data collected by FOTC] suggests that Tom's Creek should be classified as an Exceptional Value Stream and must be protected. FOTC engaged Dr. Ben M. Stout III,Ph.D., to measure the biological conditions of Tom's Creek and determine if it merited consideration for classification as an Exceptional Value Stream. On April 27, 2016, Dr. Stout issued a report following sampling (attached as Exhibit C). … Although the Department, by letter on May 18, 2016, ultimately informed FOTC that the locations Dr. Stout used for sampling the reference streams were unacceptable, the data he collected from Tom's Creek is important for understanding the impacts that the Mine Expansion will have on the surrounding environment. Further, FOTC engaged Stephen P. Kunz, Senior Ecologist with Schmid & Company Inc., Consulting Ecologists, to review Dr.

Stout's Report. … Without further macroinvertebrate or biological testing from the Department or SGI, FOTC strongly believes that the northern tract expansion will end up degrading an EV stream. … The Department is required by 25 Pa. Code §93.4c(a)(l)(i) to protect the existing uses of surface waters and is required by 25 Pa. Code § 93.4c(a)(l)(iv) to make a final determination of existing use protection for surface waters as part of a final permit or approval action. … Consistent with the recommendations of Dr. Stout and Mr. Kunz, the Department must consider that Tom's Creek is achieving EV existing use status and ensure this is protected. (FOTC/Fair Shake)

[T]he headwaters of Toms Creek occur in the Michaux State Forest could make it eligible to being classified as being an Exceptional Value stream according to 25 Code § 93.4(b) [sic] (Princeton Hydro)

Response:

Section 2.4 of the SGI First Responses addresses FOTC's claim that Tom's Creek qualifies for upgrading to exceptional value ("**EV**") status and the Stout Report. In this second round of comments, FOTC/Fair Shake offer no new data, but simply cite to a one page letter endorsing the Stout report from Stephen Kunz of Schmid & Company dated May 18, 2016.

Princeton Hydro posits that perhaps Tom's Creek could be classified as EV because of its relationship to Michaux State Forest. However, the pertinent provisions of 25 Pa. Code 93.4b(b)(ii) only refer to waters "located in a designated State park natural area or State forest natural area …." DCNR's map of Michaux State Forest[6] (**Appendix 3.3**) does not show any designated natural area in or near the Northern Tract Quarry. The DCNR website lists just four natural areas within Michaux State Forest: Meeting of the Pines Natural Area, Carbaugh Run Natural Area, Mt. Cydonia Ponds Natural Area, and Beartown Woods Natural Area,[7] none of which are located near the SGI facility or Tom's Creek.

3.11 Adequacy of Social & Economic Justification

Comments:

If that watershed is protected and they stay back from what would be downhill water, then we will not have Tom's Creek polluted. And we will have jobs. It's SGI that's made this dichotomy…if we don't have this particular thing…we're going to have to close down. …we don't want that kind of blackmail used on us. (S. Rogers)

Tom's Creek and its tributaries provide important social and economic benefit to the local community and larger surrounding region. SGI's Module 24, which describes their Social and Economic Justification for potentially degrading discharges to Tom's Creek is misleading and inaccurate because it fails to account for the many significant social and economic benefits that Tom's Creek provides to the community and that would be harmed if Tom's Creek is degraded. (FOTC/Fair Shake)

The Department's Antidegradation Guidance Document … indicates that "the SEJ analysis should be a 'balancing' type evaluation. In such an evaluation, the asserted

[6] http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/D_000828.pdf .

[7] https://www.dcnr.pa.gov/StateForests/FindAForest/Michaux/Pages/Wild_NaturalAreas.aspx .

beneficial social or economic development must be viewed in light of, and weighed against, the degree of water quality degradation that the discharge and the proposed activity are projected to cause." The Department's Antidegradation Guidance Document goes further and identifies several SEJ evaluation factors, including: 1) water quality considerations such as sensitivity of water uses, nature of pollutants, degree of change in water quality, reliability of treatment technology, compliance records and other factors; 2) social or economic considerations such as effect on public services, on public health and safety, on quality of life, on employment, on tax revenues, tourism and other factors. (FOTC/Fair Shake)

Mountaintop removal operations do not produce new jobs and have the practical effect of crowding out other employment related to tourism, the service industry, health care, and support of growing retirement communities. Employment by SGI (less than 150 employees) is not growing … due to workers being displaced by large scale mechanical excavation and off-site technology. (FOTC)

The only thing that is going to prevent the expansion…is if the SEJ is not sufficient. … SGI's social and economic justification is very poor. (S. Rogers)

SGI stated that it pays $255,000 in taxes, but it is entirely unlcear what portion of these taxes flow to support the community. … The social and economic study must calculate the inevitable loss of residential property taxes. (FOTC 1/14/2019 Letter to Gov. Wolf)

Parcel No. 18A16-0022-00 (Pine Hill) has an assessed land value of $9,700 …. The taxes on that assessment are less than $2,000.

SGI's answers to the antidegradation and the social and economic justification sections are inadequate recompense for impacts on threatened species, destruction of a 300 million year old mountain, pollution of an HQ stream which will carry toxic sediment, harm to the health of one of the headwaters of the Pocomac River, harm during drought months to several wetlands. (Unidentified Commenter)

The only rationale propounded by SGI is that permit approval will allow it to continue a relatively high profit margin business beyond the normal 15-25 years it will take for the mine to get to the 840 ft level of their Pitts Quarry and finish the reclamation of both the West Ridge and Pitts quarries. No guarantees or timelines are stated for these activities and no commitment is made for future employment and tax revenue. (Unidentified Commenter)

SGI only makes a negative argument: a direct threat to shut down the current operation at any time depending on aggregate demand and whether they get what they want from this permit application. (Unidentified Commenter)

The SGI project lacks county, township, community support. … SGI has made no actual investment in any community program (Unidentified Commenter)

Extractive industries are not the future. (Unidentified Commenter)

There is uncertainty of profit in the asphalt shingle roofing business. Metal roofs are gaining market share quickly …. Solar roofs are just beginning to make an impact on the market …. There is definitely an increasing market for producers such as HASBRO who make an environmentally neutral granule … of coal combustion byproducts. And 3M …. (Unidentified Commenter)

The economic plans for Adams County and Hamiltonban Township's future are based on preserving agriculture, recreation and tourism. … Driving past a dusty, noisy, ugly quarry will hurt all of these endeavors. (Unidentified Commenter)

Our community has three new and exciting tourism venues: Monterey Battlefield, Liberty Mountain Resort and a new Orvis upland shooting plantation. … There is nothing compatible between healthful, sustainable tourism and surface mining. (FOTC 1/14/19 Letter to Gov. Wolf)

While I understand the importance of having jobs…it is short-sighted to allow further degradation of the surrounding forest. (A. Sargent - Sierra Club/FOTC Petition)

There is absolutely no benefit to our local community in expanding the reach of SGI (C. Miller - Sierra Club/FOTC Petition)

Response:

The pertinent regulation, 25 Pa. Code §93.4c(b)(1)(iii) requires a finding that "allowing lower water quality is necessary to accommodate important economic or social development in the area …."

The first element of consideration is whether the Project will result in lower water quality and to what degree. The information provided in Module 24 and SGI First Responses amply document the improbability there would be any lowering of water quality in Tom's Creek. The potential for discharges to Tom's Creek associated with the proposed Northern Tract operations is extremely low, as discussed above in **Sections** Error! Reference source not found. above. Any discharges that might hypothetically occur would be stormwater during extreme (100-year to 1000-year) events when the stream is already laden with sediments from stormwater runoff and channel erosion from the remainder of the watershed. The NPDES permit proposed by the Department provides for a non-degrading discharge during such events based on monitoring that shows that the difference in concentrations between upstream and downstream points are not statistically significant given the natural variability of such parameters. Further, as discussed previously, the maintenance of a buffer of at least 300 feet to Tom's Creek, blasting practices that limit fracture propagation, and hydrogeologic evaluations that indicate no measurable impact on Tom's Creek flows strongly support the conclusion that water quality in Tom's Creek will not be reduced.

Against this unlikely, improbable and speculative lowering of water quality, SGI has documented the employment, tax and other social and economic benefits accruing from the ability to continue the Charmian facility's production of unique roofing granules at the rare metabasalt formation found at this site. Beyond what has already been submitted as supporting information, SGI engaged an expert economic consulting firm, Econsult Solutions, Inc. ("**ESI**"), to prepare an update to the economic impacts analysis for the Charmian facility. The results of that analysis are presented in **Appendix 3.4**. In short, the ESI analyses showed:

- Based on its 2018 operations (not including capital investments), SGI generated $40.2 million in total economic impacts within Adams County and supported 264 jobs (both direct and indirect) and $19.2 million in wages and salaries.

- Within the Commonwealth, SGI generated $60.9 million in total economic impacts and supported 476 jobs (both direct and indirect), $35 million in wages and salaries, and $1.2 million in annual tax payments to the state.

- In 2018, SGI's capital investments generated $6.9 million in total economic activity in Adams County and supported 37 total jobs and $1.7 million in wages and salaries.

- Within the Commonwealth, SGI's capital investments generated $10.5 million in total economic activity and supported 58 total jobs, $2.6 million in wages and salaries, and $130,000 in tax revenue.

- SGI significantly contributes to local governmental tax revenues. SGI's Charmian plant directly pays local property taxes, its employees pay local earned income tax, and the economic activity generated by its existence leads to additional local tax revenues. In 2018, SGI's Charmian plant paid over $254,000 in county, township and school district property taxes; and SGI plant employees paid an estimated $157,500 in earned income taxes to area school districts.

In order to sustain the current Charmian facility operations and associated jobs, an ongoing source of metabasalt material is required as the resources of the existing Pitts Quarry are exhausted. As the manager of Washington Township observed, in a region which was "hard hit" by loss of jobs attendant to closure of Fort Ritchie, the preservation of SGI's employment base is significant.[8] The social and economic justification laid out in SGI's SEJ are further supported and underscored by the testimony offered by a number of witnesses at PADEP's January 30, 2019 hearing, including: (1) Jeffrey Geesaman, Township Manager, Washington Township (history of contributions to the community and assistance to the Township); (2) Buck Browning, Director of the Ft. Ritchie Community Center (SGI contributions to center operations and youth programs); and (3) Todd Willman, Manufacturers Association of Southcentral Pennsylvania (SGI's payroll, economic contributions to the region, and community organization support).

SGI has been actively engaged in cooperative efforts, working with governmental and community organizations, on a range of community and environmental stewardship projects. Those efforts have included substantial contributions to improvements to the Monterey Pass Battlefield Museum, where in 2014, SGI contributed materials toward the reroofing of the museum building. SGI's commitment was more recently evidenced in its cooperative efforts working with the Adams County Conservation District in a project on Strawberry Hill involving revitalization of the Middle Creek trout habitat and the park's erosion control project. The project, which was highlighted in the Adams County Conservation District Annual Report,[9] was designed by the Adams County Conservation District with input from the Pennsylvania Fish & Boat Commission and Adams County Trout Unlimited. As observed by the Conservation

[8] January 30, 2019 Hearing Transcript at 81.

[9] Available at: http://www.adamscounty.us/Dept/Conservation/Documents/HomePgQuickClicks/ACCD_Annual_Report.pdf

District's Manager, Adam McClain: "The Middle Creek Fish Habitat Improvement Project was a great community project in many ways. The project provided great habitat for trout and also stabilized eroding stream banks in one of the highest quality streams in Adams County, PA. … It was also refreshing to me to see a local business like Specialty Granules recognize the needs that were lacking in the partnership and quickly fill that niche."

Some commenters have attempted to argue, without any citation to supporting evidence, that the market and need for asphalt shingles is diminishing, to be replaced by metal roofs or other technologies. The facts are to the contrary. The durability of asphalt shingles has increased dramatically over the past several decades, with manufacturers now offering 40-year or lifetime warranties, when previously 25-30 year warranties were the norm. With that durability increase, asphalt shingles utilizing durable granules such as those produced by SGI are and remain the primary roofing product in North America. Of the U.S. sloped roof market, asphalt shingles and associated "component" roofing systems represent over 75% of annual installations, compared to only 14% for metal.[10] There is no evidence of an increasing trend toward use of metals roofs on residential structures. The typical installed cost of asphalt shingle roofs is about one-half that of a comparable metal roof ($10,000 vs. $19,000).[11] With low initial and life cycle costs and reasonable installation fees, shingles are by far the most popular and cost-effective roofing solution, and are an essential component of maintaining affordability in housing.

SGI acknowledges that Tom's Creek provides a range of other benefits, including fishing and recreation. But approval of the Northern Tract Quarry operations does not require a "balancing" of SGI's benefits vs. the other benefits arising from Tom's Creek, because the Northern Tract operations are designed to protect Toms Creek's benefits and attributes. It's not a question of one versus the other; these benefits can and should coexist. There is also no support for the proposition that the Northern Tract will decrease tourism jobs.

In this context, the benefits documented in Module 24 plus supporting information provided in the Applications and testimony of others amply support approval of the SEJ.

4. Miney Branch Impacts

Comments:

Under SGI's proposal, once the Northern Tract development is complete, stormwater runoff will drain into Pitts Quarry and to the existing sedimentation pond prior to discharge. Generally, that sediment pond involves a passive discharge as water reaches appropriate levels. It is clear that SGI already has to drain the pond by way of pump just before a rain event is predicted. Since the sediment pond is normally a passive

[10] See Owens Corning Investor Briefing re Roofing, http://s21.q4cdn.com/855213745/files/doc_presentations/2017/investor_day/OC-INVESTOR-PRESENTATION-DECK_ROOFING.pdf ; Asphalt Roofing Manufacturers Association, MAT Release, Asphalt Stacks Up Against Alternative Roofing, https://asphaltroofing.org/decisions-decisions-asphalt-stacks-up-against-alternative-metal-roofing/ .

[11] Owens Corning Investor Briefing.

discharge and pumping is required, this clearly suggests that the ponds are under capacity and are not effective at removing solids. If SGI's proposal is approved, however, they will be adding increased additional storm water from the expansion and there will be more active pumping discharges. Based on Princeton Hydro's review of the sedimentation pond capacity, this additional active pumping would prevent solids from adequately settling out and lead to additional unanticipated discharges to Tom's Creek, further impacting water quality. The Department must carefully review the capacity of SGI's sedimentation pond to ensure Tom's Creek is protected. (FOTC/Fair Shake)

Further. the remaining runoff that drains to Pitts Quarry will eventually end up in existing sedimentation pond. Calculations will show that the existing stormwater control is not designed for this new source of input and is undersized, making unintentional discharge inevitable with storm events. (Princeton Hydro)

Contrast please pristine Tom's Creek, with Miney's Branch which runs a sickly green, and we have plenty of photos to support that. (H. Keahey)

[W]e have just started late last year developing a monitoring program to really see the impacts that SGI has on Miney's Branch. … Miney's Branch is degraded. … So what we have seen in the last six months is an up and down swing of turbidity flowing down Miney's Branch just downstream from the discharge of the settlement ponds/

The stream bed is mucked full of grit. It runs green most of the time. [T]hree days before Thanksgiving last year … the stream was running particularly heavy and green… I noticed that SGI was dewatering their pond. They had a pump running. And they were discharging a high volume of water from the settlement ponds into Miney's Branch. And just downstream at the Sportsman's Club area, Miney's Branch was thick and green. That was an obvious and visual disturbance and degradation to Miney's Branch. (B. Walls)

It's obvious that the limits that are used for Miney's Branch and for the SGI ponds is technology based, and that should not be. They should be a water quality based. (B. Walls)

There's two ways of showing degradation to a stream. Numerical…and narrative. You need to include turbidity as a measure. … [T]his needs to be conducted and assessed before this expansion goes forward. (B. Walls)

When they're pumping out into Miney's Branch and they say its less than the 30 milligrams per liter…where are the test results? (P. Kellet)

Since the meeting last July, our property has turned into a grit bin…green grit piling up on our property. It has shifted the stream bed 8 to 10 feet from one side. And it's eroding the property right behind our house the same amount it took out. … In January 2010, we noted a lot of heavy rain … it was like seven to nine inches of rain. And we had issues of the stream, it just blew up. And it was running as green as a gourd. … I drove past the settling pond…it was empty. Now I know a few days prior to that it was level full. … Since this meeting last year, we have become inundated with grit, sludge. It is moving everything. We haven't had aquatic life in that creek in years. We've lost a foot of depth behind our house. There is a bridge that goes back the lane that serviced an 1800's stone house…so much deposition of grit...it has now shifted that whole stream over to the road above the bridge. (M. Young)

We haven't heard anything about any reports that tell us…is this a flocculent, is it something that can make someone sick. … How do we know it hasn't infiltrated our well water. (M. Young)

Properties along Miney Branch Creek…are clogged with green grit. It is confirmed that at one location along Miney Branch Creek the green grit is 3 feet deep! (H. Keahey)

SGI has failed to demonstrate that there is no presumptive evidence of potential pollutions of waters of the Commonwealth. 25 Pa. Code §77.126(a)(3) (H. Keahey)

Response:

(a) Operation of Lower Mill Pond System

The Lower Mill Pond system is operated to provide not only sedimentation treatment, but also storage of water used in the SGI process. Lower Mill Pond 1 acts as receiving and settling basin. Flocculent is added between Pond 1 and 2 to facilitate settlement of suspended solids. Lower Mill Pond 2 provides settlement of particles. Applying the 25 Pa. Code Ch. 102 design criteria, Pond 2 contains 85% the entire system required settling volume (938,548 cubic feet) and multiple times the required system sediment storage volume (1,046,412 cubic feet). Lower Mill Pond 3 provides for further polishing and control, and stores water for reuse in the SGI process. Water discharges from Pond 3 are controlled with valves on primary outfall pipe. Water is normally collected in Pond 3 and kept at a set elevation or higher to provide process water. However, water from top of storage in Pond 3 may be drawn down and discharged in advance of anticipated storms to make room within the impoundment for ongoing runoff using a combination of the main outlet works and a pump with a floating intake that obtains water from the top of the pond (where clear water should be situated). This system is described in the existing approved mining permit for the Lower Mill Pond area. (2014 SMP 6477M5, Module 13). All discharges are subject to the effluent limitations set forth in the NPDES Permit for the Lower Mill Pond system.

In addition to the capacity of the basic Lower Mill Pond System, SGI has recently added to the storage and sediment treatment capacity in the Lower Mill Pond watershed through a significant expansion of the Blue Mountain Pond.

The Northern Tract stormwater would only enter the Lower Mill Pond System when pumped there intentionally by design. The Northern Tract stormwater facilities will be operated so as to retain water in the retention ponds at the Northern Tract until after passage of the peak flows from the area that directly drains to the Lower Mill Pond System. Only after the storm's peak flow has passed would water collected from the Northern Tract be transferred to the Lower Mill Pond System for treatment. This operating plan assures that the transfer of water from the Northern Pond would not impact the capabilities of the Lower Mill Pond System or increase the existing peak flows in the Miney Branch.

(b) Young Complaint

In response to a complaint filed by Mona Young in early 2010, PADEP conducted an investigation of conditions at her property and at the SGI facility. The results of that inspection

were documented in a PADEP memorandum dated June 9, 2010 (**Appendix 4.1**). The conclusion section of that investigation report summarizes PADEP's findings:

- Our field observation of the ISP Minerals Charmain Plant and West Ridge Quarry did not show any evidence of any major discharges from the mine property. The National Weather Service records did show a 3.3" rainfall event occurred on January 25, 2010, and the Charmain Plant rain gauge also recorded a 3.6" rain fall on January 25. No inspection reports have indicated any E & S violations in the last several years and the quarterly discharge monitoring reports for Sedimentation Pond #3 did show a higher discharge in the first quarter of the year. However the higher discharge for the first quarter is common for Sedimentation Pond #3 as noted in past years.

- There are other residents along the Miney Creek between the quarry and the boat house as shown on the attached Exhibit I Map. No other complaints were received concerning the Miney Creek flooding.

- The mud found on Mona Young's property at the time of our investigation was brown and the mine's sediment is green.

- The four (4) feet culvert pipes opening area is only 50.24 sq. feet and the state bridge for SR16 has an open area of 210 sq. feet which indicates the stream crossing at Rain Tree Lane is extremely under designed and will continue to have a flooding problem. Furthermore the 4 feet pipe openings will continue to block off during a major rainfall event and thus causing the stream to overflow on to the road and adjacent properties.

- Finally the boat house is built in the stream's flood plain area and will continue to be affected by major storm events.

Based on the available evidence the mining operations conducted by ISP Minerals, Inc. cannot be considered responsible for the reported flooding event.

The conclusions reached in PADEP's investigation memo are factually supported from a number of perspectives. The map provided in **Appendix 4.2** shows the location of the Young residence on the southerly side of Miney Branch and the boathouse on the northerly side of Miney Branch. **Appendix 4.3** provides a blowup of the Pennsylvania Department of Economic and Community Development ("**DCED**") flood zone map[12] for the immediate vicinity of the Young property. As is quite clear from the DCED flood zone map, almost all of the Young property including the entirety of the boat house and adjacent lands lie within the Miney Branch flood plain. The map contained in **Appendix 4.4** depicts the watershed that drains to Miney Branch upstream of the Young property. The Miney Branch drainage area upgradient of the Young property encompasses nearly 3078 acres, of which the Lower Mill Pond system

[12] Source: http://dced.maps.arcgis.com/apps/webappviewer/index.html?id=4321d9e3e1094dc494f942c039604d3a.

represents just 225.7 acres.[13] Included in that watershed of Miney Branch draining toward the Young property are significant portions of the developed areas of Blue Ridge Summit and Monterey. In this stream system, which has a significant gradient and drainage area, storms of the type that struck in early 2010 (i.e., 3.3-3.6" rainfall in a short period of time) produce (1) rapid runoff with attendant erosion of stream banks and beds, (2) flows exceeding the carrying capacity of some downstream road crossing and other culverts, and (3) flows which inundate the floodplain. While SGI's operations are subject to specific erosion and sedimentation control measures, drainage from other parts of the Miney Branch watershed are not subject to such controls.

(c) Flocculants

In response to the question concerning "flocculants," SGI adds as needed limited quantities of two materials (NALCO 7129 as a primary flocculant in tandem with NALCO 8157 as a coagulant) to the water flowing from Lower Mill Pond 2 to Lower Mill Pond 3 in order to facilitate the settlement of fine particulate matter in the water. These materials are applied at target rates of 7 parts per million ("ppm") and 15 ppm, respectively. Both materials are standard water treatment chemicals designed to be applied prior to discharge of treated water to a stream. Information concerning the treatment process and these specific materials were contained in SGI's NPDES permit application for the Lower Mill Pond system. (**Appendix 4.5**).

5. Protection of Fairfield Municipal Authority Water Sources

Comments:

The Fairfield Municipal Authority has prepared a draft source water protection program. The draft plan states that "The groundwater that enters the wells is derived from groundwater traveling northeast along the Toms Creek valley, which m ay act as a partial recharge boundary. For this reason, Zone III source water protection area includes the entire upstream portion of the Toms Creek watershed …." (Fairfield Municipal Authority)

Response:

The Fairfield Municipal Authority comments indicate that the Authority obtains water from four wells that are located more than 1 mile east of the Northern Tract in the Tom's Creek Watershed. The Authority's comments include a draft plan that describes the zone I, II and III wellhead protection areas for those wells. The map included with the Authority's comments indicate that Zones I and II lie in the near vicinity of the Authority wells. The Authority's plan indicates that Zone III (the recharge area for the wells) is assumed to comprise the entire Tom's Creek watershed.

[13] While an additional area generating stormwater is collected and pumped over from Pitts Quarry and in the future from the Northern Tract, that pumping does not occur until after the peak rate of runoff from the direct Lower Mill Pond drainage area has passed.

PADEP regulations define Zone I as the protective zone immediately surrounding a well within a 100 to 400 foot radius depending on site-specific conditions[14] and provide that a water system should own or control the area within Zone I and avoid fuel or chemical storage within that area (with limited exceptions).[15] Wellhead protection program Zone II is defined as encompassing the portion of an aquifer through which water is diverted to a well (generally assumed to be a ½-mile radius around a well unless a more detailed delineation is approved).[16] PADEP drinking water regulations do not prescribe any limitation on uses within Zone II. Zone III is defined as the contributing area to a well outside of Zones I and II,[17] and again the PADEP regulations do not prescribe requirements for land uses within Zone III.

In this case, even assuming that the upper portions of the Tom's Creek watershed contributed to some degree to recharge of the Authority's wells, the hydrogeologic and other analyses provided in the Applications indicate that the SGI Northern Tract project will have no impact to the quantity or quality of water reaching the Authority's wells. Due to the tight nature of the metabasalt rock in the Northern Tract area, and based on experience from prior operations, no measurable impact on groundwater elevations and Tom's Creek flow is anticipated at or below the Northern Tract. Further, since the Northern Tract operation is designed to avoid discharges to Tom's Creek in all but extreme (100- to 1000-year) storm events, the Northern Tract project would not impact water quality recharging to the Authority wells.

6. Blasting Impacts

Comments:

The dramatic symbol of how our peace has been shattered now comes early on many weekday afternoons [when SGI]…sets off massive blasts…so far blasts fall within legal limits, but still they shake our house and others nearby. They are frightening and disruptive… (S. Ungar)

We have each experienced a deep sense of fear when exposed to an SGI blast. The house literally shakes. We feel the blast. We feel unsafe. No reassurance from SGI that the blasts are being tracked by seismograph or that they are within acceptable limits can help calm…fear… (J. Andes)

Blasting will also impact septic tank. (Sierra Club/FOTC Petition Letter)

We are having problems with our well for a few years because of them…from all the blasting they do! (S. Holbrook - Sierra Club/FOTC Petition)

I've lived on the neighboring ridge to this mine… My windows rattle when they are blowing up the mountain. (J. Handshaw Sierra Club/FOTC Petition)

When current mining operations blast, our house windows and garage doors rattle. If operations come even closer…this will increase. This could lead to structural damage to our home. (M. Rogers/R. Rogers)

[14] 25 Pa. Code §109.1

[15] 25 Pa. Code §109.603(b).

[16] 25 Pa. Code §109.1.

[17] *Id.*

Response:

Issues relating to blasting practices were addressed in detail in Section 4 of the SGI First Responses. Comments received in the second round of public comments largely repeat assertions made previously and addressed in the SGI First Responses. As detailed in those responses, SGI's blasting practices comply with, and in most cases perform far better than, PADEP ground vibration/peak particle velocity and overpressure standards.

7. Truck Traffic

Comments:

[SGI managers] may not notice the massive trucks that run noisily past on narrow country roads ill-suited to support them. (S. Ungar)

I want to begin by applauding SGI on their efforts to redirect quarry-related truck traffic to a road they promised to building directly to PA Route 16 sometime in the future. I believe it is a wonderful idea, but I wondered whether it will happen. (J. Dull)

[SGI's response] say construction and equipment deliveries and shipments will all continue to be routed through SGI's internal haul roads and ultimately utilizing existing site entrances on Old Waynesboro Road. To me this says the trucking routes will not change without a road. (J. Dull)

SGI is planning to complete a new access road…before winter of 2019/2020. If the state permit for entry onto Route 16 has not been issued yet…how can this project be completed by the end of the year…? (J. Dull)

[The SGI Response] says that SGI helped Hamiltonban Township repave a 2,000 foot section of the Old Waynesboro Road, and that was great. … What about the maintenance on the majority of the road used. Incidentally, there was not mention involving Washington Township. (J. Dull)

[C]onditional words and phrases used throughout the 180 pages of [the SGI Responses] in my mind constitute vague promises at best. (J. Dull)

If the road is built, it will divert truck traffic from residential areas. …the 80 percent they talk about probably won't be so. It will probably only be 50 percent because all of the heavy trucks will still come back… (J. Dull)

I see no way of enforcing it and no alternative proposed for either current mitigation of the truck problem or mitigation of the destructive and dangerous trucking situation that currently exist if this plan falls through. I would suggest that the building of this road be made a condition of approval. (J. Dull)

SGI's proposed road to connect its facility with Route 16 could be a substantial contribution to reducing the air and noise pollution and safety threats from the large number of trucks hauling product to and from the SGI facility. (P. Hoff/E. Hoff)

The road will concentrate truck traffic in a new portion of the community which also has homes and residents who also are entitle to the privacy and quiet. SGI has a legal obligation to make every reasonable effort to reduce the adverse impact of the new road. (P. Hoff/E. Hoff)

SGI as a condition of any approval…should be required to commission independent modeling studies of the impact of the new road. (P. Hoff/E. Hoff)

I am deeply concerned about the abundance of trucks traveling just a few feet from my home…many are traveling with no covering… This dust flies into the air, into my home, gets wet and flows into my vegetable garden… (K. Jaeger)

Response:

Issues relating to truck traffic were addressed in detail in Section 5 of the SGI First Responses.

7.1 SGI's Commitment to Implementation of the Route 16 Project

Responding to questions concerning SGI's plans to implement the proposed Route 16 Project, SGI is fully committed to the Route 16 project; and subject to obtaining the PennDOT highway occupancy permit (which application is currently pending), SGI plans to move forward with the project this year. Any qualified wording in SGI's public statements related to the Route 16 connector road are due solely to not yet having the project fully permitted. The PennDOT highway occupancy permit application and other supporting permits are currently pending, and once the permit is received SGI plans to move forward with the project.

SGI has already made a significant investment in this project, including costs of acquiring the necessary property rights, preparing required designs, and submitting permit applications to both PADEP and PennDOT. SGI applied to PADEP in November 2017 for a Mining Permit amendment to authorize the Route 16 Project, and PADEP issued that final permit on October 16, 2018. The remaining permits needed to implement the project are related to the highway occupancy permit from PennDOT, and SGI's applications for those authorizations are pending agency review. Depending on the timing of PennDOT's approval, SGI could complete this project as early as the end of next calendar year. If PennDOT's approval is delayed for any reasons such that the project cannot be completed this year, SGI would plan to complete it in the next construction season. That being said, the Northern Tract Quarry development will not increase truck traffic but is focused on extending the life of the mine.

8. Noise

Comments:

No new comments received on this topic, apart from truck traffic issues.

Response:

Issues relating to noise were addressed in detail in Section 6 of the SGI First Responses.

9. Asbestos

9.1 Rock Core Sampling Methods

Comments:

[T]he rock sampling and analysis was conducted using inappropriate methods. SGI indicates that they drilled 17 rock cores during the exploration phase of the proposed Northern Tract Quarry area and from these cores, SGI ultimately collected 40 rock samples that were sent for laboratory testing. … [T]he laboratory utilized the Environmental Protection Agency's Test Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116)2, rather than utilizing a method more appropriate for identifying naturally occurring asbestos in rock or soil samples. FOTC directs the Department to two potential sampling methods that are more scientifically and technically appropriate in this context … [t]he California Environmental Protection Agency Air Resources Board … Method 435 for Determination of Asbestos Content of Serpentine Aggregate … [and] EPA's Elutriator Method …. (FOTC/Fair Shake)

Response:

The comment reflects a misunderstanding of the sampling and testing methods followed. The reference on the R.J. Lee Group ("**RJLG**") report of analysis of the core samples to EPA/600/R-93/116[18] was to that element of the EPA methods concerning use of Polarized Light Microscopy ("**PLM**") to evaluate the materials in question for the presence of asbestiform fibers, including the methods for counting of fibers on a grid. In the case of the samples derived from the core borings drawn from the Northern Tract area, the cores were drilled and then samples were taken from each core in a manner that assured at least one sample from each core and multiple samples from each planned mining level (50 vertical feet) within the proposed quarry. Each sample was crushed and sieved through a mesh. Resulting fine materials were sent to RJLG for analysis. A total of 40 samples from the cores were then analyzed by RJLG via PLM, using a 1000 point count with a detection limit of 0.1%.

The California Air Resources Board ("**CARB**") Method 435,[19] cited by Fair Shake/FOTC, likewise calls for use of PLM evaluation of crushed samples, and a point counting process involving a minimum of 400 points. The field sampling methods of CARB Method 435, however, are designed to address sampling of different materials, involving serpentine aggregate storage piles, conveyor belts, and serpentine covered roads, in contrast to rock core samples. However, like the method followed for the SGI core samples, the CARB method requires crushing and sifting a portion of the sample to prepare the material for PLM analysis. The CARB 435 method does not provide any additional guidance for identification of naturally-occurring asbestos, and is not any more appropriate for the task than the method utilized by SGI and RJLG.

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[18] Available at: https://www.nist.gov/sites/default/files/documents/nvlap/EPA-600-R-93-116.pdf .

[19] Available at: https://www.arb.ca.gov/testmeth/vol3/m_435.pdf. Associated guidance document: https://www.arb.ca.gov/toxics/asbestos/tm435/guidancedocument.pdf.

The USEPA "Elutriator Method"[20] is a ***draft*** method developed by USEPA for separating fines in soil samples and media such as vermiculite taken at Superfund sites, in preparation for TEM microscopic analysis. It has not been adopted, and is not applicable to this situation.

9.2 Air Sampling Methods

Comments:

As I understand the UNC Passive sampler, there are variations on the analysis model you can use. The RJLG report didn't specify the model used …. It appears that some models pretty seriously underestimate the PM2.5 concentrations …. For reference see this paper: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5873525/pdf/wxx110.pdf. (C. Frost

The RJLG report uses prevailing wind direction data from meters that are miles away from the site. The site is nestled in a mountainous area with numerous local ridges and valleys that drastically affect air currents, especially those close to the ground. There is also likely a great deal of variation due to the working equipment in the mine area itself. RJLG should have used wind meters on each sampling station …. (C. Frost)

…SGI used inappropriate testing methodology for the asbestiform fibers. …they didn't use any anemometers on their testing gear. They have no information about the wind patterns at the mine site… …a one time sample…is also inappropriate to the problem… (C. Frost)

The passive monitors did not provide a representative sample, and only represented a volume of air that was only a small fraction of the air column.

The sampling which was done by RJLee was not the kind which will be done by the EPA, or OSHA, or MHSA. … The kind of sampling which could be considered appropriate would be that which is done for a superfund site. … Only water and soil samples, taken in areas of blasting and crushing, will provide meaningful data. (Unidentified Commenter)

We are shocked by the prospect of the destruction of the mountain… We are also profoundly concerned…the project will disturb seam of carcinogenic asbestos.. We understand Pennsylvania officials are aware of this threat and that the extent of the danger has not been determined by proper testing. (N. Miller/E. Miller)

Response:

(a) Validity and Accuracy of Passive Sampler Method

The UNC Passive Aerosol Sampler (PAS) has been validated for use in monitoring environmental particulate, as reflected in numerous publications (the following is a partial listing):

[20] Available at: https://www.epa.gov/sites/production/files/2018-08/documents/otm_42_sampling_sample_preparation_and_operation_of_fluidized_bed_asbestos_segregator.pdf

- J. Wagner and D. Leith (2001). "Passive Aerosol Sampler. Part I: Principle of Operation", *Aerosol Science and Technology*, 34, p. 186–192.
- J. Wagner and D. Leith (2001). "Passive Aerosol Sampler. Part 2: Wind Tunnel Experiments", *Aerosol Science and Technology*, 34, p. 193-201.
- J. Wagner and D. Leith (2001). "Field tests of a passive aerosol sampler", *Journal of Aerosol Science*, 32, p. 33-48.
- J. Wagner and J. Marcher (2003). "Comparison of a Passive Aerosol Sampler to Size-Selective Pump Samplers in Indoor Environments", *AIHA Journal*, 64, p. 630–639.
- B. Willis, D. Leith, T. Merrifield, J. Wagner, G. Casuccio, C. Cowley, T. Conner, and T. Peters (2006). "Evaluation of PM_{10}, $PM_{2.5}$, $PM_{10\text{-}2.5}$ Measurements using a Passive Particulate Sampler", presented at AWMA Specialty Conference Symposium on Air Quality Measurements and Technology, Durham, NC, May 2006.
- D. Leith, D. Sommerlatt, and M. Boundy (2007). "Passive Sampler for $PM_{10–2.5}$ Aerosol", *Journal of the Air & Waste Management Association*, 57, p. 332-336.
- D. Nash and D. Leith (2010). "Ultrafine Particle Sampling with the UNC Passive Aerosol Sampler", *Aerosol Science and Technology*, 44, p. 1059-1064.
- P. Kumar, P. Hopke, S. Raja, G. Casuccio, T. Lersch, and R. West (2012). "Characterization and heterogeneity of coarse particles across an urban area", *Atmospheric Environment*, 46, p. 449-459.
- J. Wagner and G. Casuccio (2014). "Spectral Imaging and Passive Sampling to Investigate Particle Sources in Urban Desert Regions", *Environmental Science: Processes & Impacts*, 16, p. 1745-1753.
- E. Sawvel, R. Willis, R. West, G. Casuccio, G. Norris, N. Kumar, D. Hammond, and T. Peters (2015). "Passive sampling to capture the spatial variability of coarse particles by composition in Cleveland, OH", *Atmospheric Environment*, 105, p. 61-69.
- T. Peters, E. Sawvel, R. Willis, R. West, C. Casuccio (2016). "Performance of Passive Samplers Analyzed by Computer-Controlled Scanning Electron Microscopy to Measure $PM_{10–2.5}$", *Environmental Science & Technology*, 50, p. 7581-7589.

These publications show that the UNC-PAS sampler works well with "coarse" particles ($PM_{10\text{-}2.5}$, particles between 2.5 and 10 μm aerodynamic diameter) and with "fine" particles ($PM_{2.5}$, particles 2.5 μm aerodynamic diameter and finer). The publications report on the validation of the UNC samplers for these particles, particularly for minerals particles. This is because the UNC-PAS estimates concentrations ($\mu g/m^3$) based on the measurement of the dimension and composition of filterable particles. Particulate matter in ambient air can also include condensable organics, as well as volatile and semi-volatile species. Condensable organics are not well suited for measurement with this sampler; but such condensable organics are not an issue with respect to the SGI facility.

Interestingly, the Shirdel, et al. paper showed that there is nearly a one-to-one comparison between the UNC-PAS results and the Shirdel reference methods for both the PM_{10} fraction (particles less than 10 μm) and the respirable fraction (defined as particles whose cumulative size distribution has an average geometric mean diameter of 4 μm). Of interest are those

particles in the respirable range that are small enough to reach the alveolar region of the lungs. This size fraction includes some particles from $PM_{10-2.5}$ as well as $PM_{2.5}$. The charts in Figure 1 of the Shirdel et al. paper (under the "With mesh factor" column) show this comparison.

As noted in some of the publications, work is progressing in evaluating the UNC-PAS samplers for particulate matter in the $PM_{2.5}$ particle fraction involving condensed gasses, such as NO_X and SO_2. These 'particles' present analytical problems in the electron microscope. However, for the Charmian quarry, condensed gases are not at issue.

With respect to the analytical methodology used in the paper referenced in the question (Shirdel, et al. 2018), the authors noted potential limitations in the discussion section of the paper: low microscopic magnification with no chemical speciation. The paper reports no significant issue with particles larger than $PM_{2.5}$ and indicates that much of the problem in the $PM_{2.5}$ range is related to the low magnification used in the analysis combined with the image processing technique. The authors pf the Shirdel paper note that a higher magnification would be better suited for measurement of the $PM_{2.5}$ fraction.

In comparison to the methods used in the Shirdel study, RJ Lee Group (RJLG) analyses of the samples from the SGI facility were conducted using software that increases the magnification based on the size of the particle so that the RJLG measurements of the particles (especially for fine particles) had a much higher resolution which increases the precision and accuracy of the particle measurements. The RJLG procedure was also different in that RJLG collected compositional information from each particle, thereby providing better information related to particle density. Finally, RJLG examined the entire UNC-PAS sample surface (Shirdel et al. only examined half of the surface), counting thousands of particles on each sample (typically 5000 particles) whereas for the samples reported in the Shirdel's paper only hundreds of particles were measured.

(b) Wind Direction Information

First, it is important to note that RJLG placed samplers around the entire perimeter of the SGI property so that ***all potential "downwind" directions were covered by the monitoring program***. Thus, any potential influence on wind direction due to the terrain was accounted for in the perimeter monitoring program. Given that all potential wind movement directions were covered by the monitoring program, placement of wind meters at each sampling station is unnecessary.

The prevailing wind data reported in the RJLG report was obtained from a government-run website (https://www.ncei.noaa.gov) for several local airports. Four of these locations (Gettysburg, Greencastle, Waynesboro, and York) were cited in the report. Although not mentioned in its report, RJLG also checked the Hagerstown airport station. During the period when the samples were collected (August 28 – September 6, 2018), the general wind direction was from the west to southwest blowing toward the east/northeast for all stations.

(c) Air Sampling Representativeness

The objective of the RJLG monitoring program was to evaluate ambient air at the perimeter of the SGI facility, as the air may flow into the surrounding community. In that regard, RJLG is confident that the methods utilized (including the placement of monitors at 10 locations covering all directions of air flow for an 8-day period) and the use of monitor types and methods that are accepted by the US EPA, provide results that are reasonably representative of ambient air conditions during the sampling period.

The comparison of relative air volume in the atmosphere to the volume of air in a sampler is not relevant to determining the representativeness of air sampling methods. All air sampling is conducted using samplers that involve limited sample volume compared to the outdoor atmosphere. Air sampling is typically conducted with the assumption that the air being sampled is relatively homogenous (well-mixed). For example, in a large metropolitan area, the USEPA and PADEP only use only a limited number of samplers to define air quality. All air sampling procedures only collect a very small fraction of the air in question. So assuming that the air is homogeneous, then an aliquot of the air should be representative. The siting of the samples is based on various factors such as the type of point or area sources, obstructions to the airflow (such as by tall buildings), abrupt changes in terrain, and the height the samples are above ground.

At the Charmian quarry, ten samplers were located around the perimeter of the property to determine the presence and concentration of asbestiform fibers that may have originated from the property. Given the location of the perimeter monitors, it is expected that the air at those locations was well-mixed. In addition, several samplers were sited downwind of the prevailing wind direction from possible sources of dust (such as the sampler located at the Lower Mill Gate). Moreover, the monitoring program was conducted using monitors that provided long-term samples collected over an entire week, rather than short-term samples for such materials that are typically collected over a several hour period.

(d) Air Sampling Temporal Representativeness of Normal Operations

The ambient air monitoring conducted by R.J. Lee Group (“RJLG”) occurred over an eight day period (August 28 – September 6, 2018), using a method accepted by USEPA that allows for longer-term monitoring period compared to the much shorter (e.g., 8-hour) sample periods of other methods used to sample for asbestos in occupational settings. As stated in the RJLG report (SGI First Responses, Appendix 7.3 at pg. 12): “The observed data was collected during normal operations of the SGI facility with normal traffic on the roadways.”

9.3 Water Sampling

Comments:

Greenstone is known to contain naturally occurring asbestos, and the crushing process introduces contaminants into the air and water. (FOTC)

The greenstone being mined may contain actinolite, a sharp needle-like form of asbestos. Grinding the greenstone releases the dust into the atmosphere and water. (FOTC/C. Dull)

Response:

At the request of PADEP, SGI has conducted sampling and testing for asbestos in water discharged from the Lower Mill Pond system. Under a protocol approved by PADEP, SGI collected three 24-hour composite samples of the water discharged from Lower Mill Pond 3, with each sample at least one week apart. Samples were collected by personnel from ARM Group on May 21, 2019, June 5, 2019, and June 12, 2019, and analyzed by RJLG using USEPA Standard Method 100.2 (Transmission Electron Microscopy). The sampling methods are described in the ARM Group report contained in **Appendix 9.1**.

Currently, neither PADEP nor USEPA have promulgated any instream water quality standards for asbestos. Pursuant to the Federal Safe Drinking Water Act, EPA has adopted a maximum contaminant level ("**MCL**") for asbestos in drinking water of 7 million fibers longer than 10 µm per liter. 40 C.F.R. §141.62(b). Although there is no public drinking water intake within 15 miles downstream of the SGI Lower Mill Pond discharge, the federal drinking water MCL is the only currently available comparator for purposes of analysis.

The results from the samples taken of water discharging from Lower Mill Pond (**Appendix 9.2**) are summarized in the following table. The analyses found no asbestos fibers with a length of greater than 10 µm, and hence the calculated concentration was less than the method sensitivity (i.e., detection limit). In short, the samples were non-detect for such asbestos fibers.

Sample Date	***Asbestos Fibers Detected > 10 µm in length***	***Method Sensitivity (fibers longer than 10 µm per liter)***	***Asbestos Concentration (fibers longer than 10 µm per liter)***
May 21, 2019	0	3.2 MFL	< 3.2 MFL
June 5, 2019	0	3.2 MFL	< 3.2 MFL
June 12, 2019	0	3.2 MFL	< 3.2 MFL

9.4 Asbestos Health Concerns

Comments:

A primary concern is the possible presence of asbestos and other potentially toxic pollutants being dispersed into the atmosphere… I know for a fact that in 1975, when mining a company operated under the acronym GAF, at least one employee died from mesothelioma, an asbestos-associated malignancy. And his family was compensated in

an out of court settlement for an undisclosed amount of money. …how many other[s] have been compensated…(T. Keahey)

Ambient air pollution as a result of blasting and grinding green stone which contains naturally occurring asbestos and other airborne toxic particulates such as silica are finally being recognized as dangerous to health. … No more undisclosed settlements that bury the truth. (H. Keahey)

SGI's procedures manual specifies that their geologists look for actinolite and mark it so they can avoid disturbing it. It's an important step. This does prove that SGI is aware of the danger. A much more appropriate method would be to go through testing each new batch of debris…that could release asbestiform fibers. When asbestiform fibers are found…the debris should be treated as toxic waste before much of it gets in the atmosphere…before the debris is used as road grout. (C. Frost)

…I own property on Miney's Branch. I have free dust there too. (P. Kellet)

We are also profoundly concerned [that the project] will disturb seam of carcinogenic asbestos. … We understand Pennsylvania officials are aware of this threat and that the extent of the danger has not been determined by proper testing. (N. Miller/E. Miller)

I think the health issue is very real. This type of asbestos… …there have been studies of health outcomes around mines such as this. And the health issues decrease as you get farther from the mine. (S. Rogers)

[I] never had green dust or the blast bother me…until this summer when SGI decided to provide grit or gravel to pave roads… every time a car came down that road, a cloud of green dust coated my barn and my house. …if…there's asbestos in that element, why in the world would they put it down this gravel on a public road? I would ask that that process cease until we know the answer. And I think the testing has to be done by an independent company. (L. Whitcomb)

[W]e get dust all over our porch, green scary dust… I have two family members now being treated…for terminal lung disease. Is that testing that you did done up wind of the site or down wind of the site? (A. Young)

The black dust that settles over the entire region as a result of the operation is very concerning. It seems like it has gotten worse over the last two years. (A. Sargent - Sierra Club/FOTC Petition)

We live facing the site and have black dust everywhere which already means we must be breathing it. S. Lloyd - Sierra Club/FOTC Petition)

Mining greenstone, which SGI suggests is "inert" and harmless, presents an unacceptable level of health and environmental risks due to toxins and contaminants including copper, silicates, and naturally occurring asbestos. (FOTC 1/14/19 letter to Gov. Wolf)

Have SGI employees, including employees of predecessor companies, or families of these employees, been paid undisclosed amounts for illnesses or death caused by asbestos, silicates, or other toxins? Members of our community have lost loved ones to asbestosis, and SGI's parsing of words suppresses the truth. (FOTC 1/14/19 letter to Gov. Wolf)

Yearly, if not more often, she [daughter] has to wash her deck and house to remove the green dust and dirt from SGI. (J. Strahler)

It is clear from the comments…that there has not been adequate testing for naturally occurring asbestos. (P. Shivers/N. Shivers)

Response:

As discussed in **Section 7.4** of the SGI First Responses, ambient air quality sampling conducted at the SGI property showed median asbestos concentrations in the ten samples of 0.00012 f/cm^3, a value that compares to than average ambient air concentrations in the U.S. and is orders of magnitude below Occupational Safety and Health Administration ("OSHA") and Mine Safety and Health Administration ("MSHA") standard for worker exposure of 0.1 f/cm^3.

SGI has no records of any employee diagnosed with mesothelioma, and has no information with respect to the alleged claim which one commenter suggested occurred more than 40 years ago.

10. Air Quality

Comments:

[O]ur area is often filled with green dust that settles on our porches and our paths… (S. Ungar)

[H]as the mine operation ever been sanctioned by OSHA or the EPA for dangerous air pollution violations? … [S]houldn't the DEP insist on independent toxic pollutant testing of the current mining site as well as the property in question for mining expansion. (T. Keahey)

Response*:*

Issues relating to air quality monitoring and compliance were addressed in Section 8 of the SGI First Responses. Neither OSHA nor USEPA have ever cited SGI for non-compliance with air quality standards.

11. Historic Resources

11.1 Non-Applicability of NHPA §106 to State-Issued NPDES Permits

Comments:

Despite SGI's denial that federal historic preservation loss do not apply here, they are wrong…the U.S. Department of Environmental Protection makes it clear that NPDES authority delegated to Pennsylvania and other states must comply with the national historic preservation loss, including compliance with section 106 review. (H. Keahey)

If a NPDES permit…or other federal license is required, Section 106 Review is triggered! Existing NPDES Permits held by SGI should be stripped because of blatant violation of federal and state historic preservation laws. (FOTC 1/14/19 letter to Gov. Wolf)

There are only a few statutory exceptions to specified agencies, and the U.S. Environmental Protection Agency, is not statutorily excepted. (H. Keahey)

Response:

Issues related to the potential impact of the Northern Tract project on historic resources were addressed at considerable length in Section 9 of the SGI First Responses.

Some commenters have alleged that Section 106 of the National Historic Preservation Act ("NHPA") applies to state-issued NPDES permits; but federal statutory provisions, regulations and case law hold the opposite.

PADEP directly administers the NPDES permit program in Pennsylvania; all NPDES permits in Pennsylvania (including the permit applied for in this case) are issued by a state agency, not a federal agency. While regulations governing NPDES permits ***directly issued*** by the USEPA provide for USEPA consultation under NHPA §106 (40 C.F.R. §122.49), the federal rules governing NPDES permits issued by states with delegated programs (40 C.F.R. Part 123) do not contain any reference to the NHPA.

The federal courts have clearly held that the NHPA's obligations do not extend to state-issued permits, even where those permits are administered by states under delegated programs. In *National Mining Association v. Fowler,*[21] the U.S. Court of Appeals for the DC Circuit explicitly struck down regulations promulgated by the National Advisory Council on Historic Preservation which had attempted to extend NHPA §106 consultation obligations to state-administered permit programs. Despite the broad definition of "undertaking" in the NHPA, the court noted that NHPA §106 applies only to undertakings (i.e., projects) that are either ***federally funded*** or ***federally licensed***, and "not to undertakings that are merely 'subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency ….'"[22] The *Fowler* decision was more recently followed in *Menominee Indian Tribe of Wisconsin v. USEPA,*[23] where the U.S. District Court held that Clean Water Act §404 permits issued by a state with permitting delegation were not subject to NHPA §106.[24]

11.2 Impacts on Historic Resources

Comments:

The viewshed analysis of the Civil War Retreat Path and the Monterey Historic District focused on views during July, when trees are fully in leaf. Three quarters of the year, SGI operations are in plain sight. (FOTC 1/14/19 Letter to Gov. Wolf)

Response.

As discussed in Section 9 of the SGI First Responses, the analysis performed by Christine Davis Associates assessed the potential impact on the viewshed associated with the historical

[21] 324 F.3d 752 (D.C. Cir., 2003).

[22] 324 F.3d at 759-760, *citing Sheridan Kalorama Historical Ass'n v. Christopher*, 49 F.2d 750 (D.C. Cir. 1995).

[23] ___ F. Supp. 3d __, 2018 WL 6681397 (E.D. Wis., 2018).

[24] *Id.* at *5.

events at issue (e.g., what would have occurred during the period of the historic event). The historic event in question occurred in July 1863, during the height of summer when trees would have been in full leaf.

In fact, deciduous trees in the area are in leaf from mid-spring through fall -- well more than the few months suggested by FOTC. Moreover, the treed buffer established by SGI around the Northern Tract includes a dense mix of deciduous and evergreen species to help maintain the visual buffer even in the winter period when some trees lose their leaves.

With respect to the Monterey Historic District, the viewsheds provided with the SGI First Responses show that the view toward the Northern Tract is blocked by hills and intervening terrain, not trees (deciduous or otherwise).

12. Protected and Other Species

12.1 PNDI Process

Comments:

*The fact that is has been two years since original survey; the critical species survey needs to be done again. (*Unidentified Commenter*)*

Response:

SGI updated the PNDI survey. Attached are copies of the PNDI project receipt dated 3/29/2019 (**Appendix 12.1**); the DCNR updated response letter dated 4/1/2019 (**Appendix 12.2**), the PFBC updated response letter dated 5/14/2019 (**Appendix 12.3**), and the USFWS updated response letter dated 6/3/2019 (**Appendix 12.4**). The updated responses reconfirmed the results from the previous PNDI searches and consultations with the resource agencies.

12.2 Indiana Bat

Comments:

[T]he PA Game Commission has identified Adams County as summer habitat for federally endangered and state protected and endangered Indiana Bat (Myotis sodalist). While SGI conducted mist net surveys to identify the presence and evaluate potential impacts to these species, it is clear that additional sampling is necessary. The Princeton Hydro Report states that, "[t]he mist netting was done in early-mid October targeting the copper mine. Since Adams County is documented summer range, and the woodland habitat that SGI will deforest for mining activity would support Indiana bat roosting habitat, we would urge more sampling to be done within the property boundary in the summer months." Further sampling is clearly necessary to ensure that mine expansion will not impermissibly harm the Indiana Bat or its habitat. (FOTC/Fair Shake)

Response:

As documented in Section 10.2 of the SGI First Responses, SGI appropriately consulted with the U.S. Fish & Wildlife Service concerning potential impacts to the protected Indiana Bat species; and although not requested by the USFWS, SGI commissioned experts at Western EcoSystems Technology, Inc. ("WEST") to conduct mist-netting studies to evaluate the potential presence of protected bat species, the results of which were provided to the USFWS. . The results of the October 2017 mist-net surveys conducted by WEST were provided to the USFWS. USFWS's response dated January 18, 2018, confirmed that the "Service does not expect adverse effects to hibernating bats from the proposed project" and recommended "confining any tree removal activities to the winter months (November 15 through March 31) to avoid killing or injuring breeding bats" (a measure that SGI has agreed to follow). More recently, in response to a further PNDI database inquiry conducted by PADEP, the USFWS addressed a further letter to SGI dated February 21, 2019. In that letter, the USFWS advised: "***The Service's comments concerning Indiana and northern long-eared bats, as detailed in our letter of January 19, 2018, remain unchanged.***" **Appendix 12.6** emphasis added). The USFWS reconfirmed that position in response to the PNDI update process dated June 3, 2019. (**Appendix 12.4**).

USFWS's position concerning the adequacy of avoidance measures through limiting tree removal to winter months is well-established and supported by sound science. The area of tree cutting associated with the Northern Tract development is limited to approximately 112 acres, while the surrounding area includes ample forested habitat, including extensive areas north and west of the SGI property within Michaux State Forest.

In the face of a clear determination by the USFWS, FOTC/Fair Shake and Princeton Hydro offer nothing more than conclusory statements claiming a need for further surveys. In this case, PADEP is justified in relying upon the USFWS's determinations and recommendations. The USFWS is the agency responsible for protection of the Indiana Bat under the Endangered Species Act, staffed by personnel with expertise on the issues. The USFWS's recommendation for avoidance through timing restrictions on tree cutting reflects the considered judgment of the natural resource agency charge with responsibility for that species.

12.3 Tri-Colored Bat

Comments:

The PA Game Commission has just reclassified three species of bats… I request an updated consultation with the PA Game Commission. (S. deVeer/W. Morrison)

*The Tri-Colored Bat is now considered threatened in PA and soon will be on the U.S. endangered list. (*Unidentified Commenter*)*

Response:

The PNDI update process discussed in **Section 12.1** above was conducted after the Pennsylvania Game Commission's rule classifying the Tri-Colored Bat as threatened. In

response to the PNDI consultation process, the Pennsylvania Game Commission responded "no further review required." (See **Appendix 12.1**)

12.4 Timber Rattlesnake

Comments:

[A]dditional sampling data is also necessary for the Timber Rattlesnake …. While SGI determined that potential rattlesnake habitat is low within the area of disturbance, the testing only occurred on four occasions from April-May rather than the warmest months of the year when foraging and basking activity would be greater. (FOTC/Fair Shake, Princeton Hydro)

Response:

The Timber Rattlesnake (*Crotalus horridus*) is currently classified as a "species of intermediate concern" by the Pennsylvania Fish & Boat Commission,[25] and is not currently listed as rare, threatened, or endangered under the federal Endangered Species Act, 16 U.S.C. §§ 1531-1544, the Pennsylvania Wild Resource Conservation Act, 32 P.S. §§ 5301-5314), the Fish and Boat Code, 30 Pa.C.S. §101 *et seq.*, or the Pennsylvania Game and Wildlife Code, 34 Pa.C.S. §101 *et seq*. The PFBC, the state agency with jurisdiction over reptiles, previously listed the Timber Rattlesnake as a "candidate" species for protection in 25 Pa. Code §75.3, but in September 2016, the PFBC formally delisted the Timber Rattlesnake[26].

The pertinent provisions of the non-coal mining regulations, set forth in 25 Pa. Code §77.126(a)(10), provide that in reviewing a mining permit application, the Department must find that proposed "activities would not affect the continued existence of ***endangered or threatened species*** or result in the ***destruction or adverse modification of their known critical habitats as determined under*** the Endangered Species Act of 1973 (16 U.S.C.A. § § 1531—1544), the Wild Resource Conservation Act (32 P. S. § § 5301—5314), 30 Pa.C.S. (relating to the Fish and Boat Code) and 34 Pa.C.S. (relating to the Game and Wildlife Code)." Since the Timber Rattlesnake is neither endangered nor threatened, §77.125(a)(10) does not require PADEP to render a determination of no effect on continuing existence or no destruction or adverse modification of critical habitats.

Before the Timber Rattlesnake was delisted as a "candidate" species in 2016, SGI engaged Stan Boder of Wildlife Specialists, LLC, who is a qualified timber rattlesnake surveyor listed by the PFBC,[27] to conduct the Timber Rattlesnake Habitat Assessment and Presence/Absence

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[25] See https://www.fishandboat.com/Resource/AmphibiansandReptiles/Documents/TimberRattlesnakePApamphlet.pdf .

[26] 46 Pa. Bulletin 5731 (September 3, 2016).

[27] https://www.fishandboat.com/Resource/AmphibiansandReptiles/Documents/timber-conserve/TR-Surveyors.pdf. 58 Pa. Code §75.5 provides that in order to conduct surveys for endangered or threatened fish (fish, amphibians, reptiles and aquatic invertebrates) species or their habitat in connection with an application for a proposed or planned development activity, a surveyor must be deemed qualified by the Pennsylvania Fish and Boat Commission (PFBC).

Survey Report (June 2016). That report was provided to the PFBC for review, and a copy if provided in Module 1 of SGI's non-coal mining application. By letter dated July 11, 2016 (provided in Module 1), the PFBC advised: "As stated earlier, there have been observations of Timber Rattlesnakes in the vicinity of the project area, but based on our review of Mr. Boder's report, **we do not anticipate any direct adverse impacts to the Timber Rattlesnake from the proposed project."** (emphasis in original). The PFBC letter went on to suggest avoidance and precautionary measures should such rattlesnakes be encountered during construction, and SGI will take those measures. PFBC's position in this regard was recently reiterated in that agencies PNDI update response letter dated May 14, 2019 (**Appendix 12.3**)

Despite the delisting of the Timber Rattlesnake by the PFBC and despite the determination of the PFBC as the cognizant natural resource agency, Princeton Hydro's Jack Szczepanski claims that rattlesnake surveys should have been conducted in another season and that additional studies are needed to protect an unlisted species. Szczepanski is interestingly not listed as a qualified timber rattlesnake surveyor in Pennsylvania, and it is difficult to ascertain his qualifications regarding rattlesnake surveys. What is clear, however, is that the surveys conducted by Stan Boder, who is recognized by the PFBC as qualified, were conducted in accordance with the PFBC's Timber Rattlesnake Presence-Absence Survey Guidelines.[28] Those guidelines provide for denning surveys to be conducted April 15-May 15 for a minimum of 4 non-consecutive days. No denning habitats were found to be occupied; no rattlesnakes were observed in the survey area; and ultimately the PFBC reviewed and accepted those surveys. Nothing more is required in regard to this delisted species.

Again, PADEP is allowed to place reasonable reliance on the conclusions reached by the PFBC, the agency with responsibility and experience in relation to this non-threatened, non-endangered species.

12.5 Bog Turtle

Comments:

I didn't see any mention where there was a survey done for this. [bog turtle] And I traveled up and walked along Iron Springs Road, up by the wetlands that are in peril that are going to be destroyed by this project. There are seeps up there and this is where they live. … I observed [a bog turtle) down on Route 16 near Lake Mae squashed by a car. (S. Roy)

[T]he report put together by Skelly and Loy for SGI concludes that the property would not support typical bog turtle habitat conditions. Yet, the photos taken do indicate the presence of supporting vegetative structure for Bog Turtle habitat and Princeton Hydro suggests that a Phase II survey is warranted. (FOTC/Fair Shake)

Information used in this bog turtle survey was from a field visit made on December 8, 2015…is now over two (2) years. The BT survey 12/8/15 cites any information therein is only valid for two (2) years and fails to address parcels containing streams/drainage ditches from adjoining properties… (S. Roy)

[28] https://www.fishandboat.com/Resource/AmphibiansandReptiles/Documents/timber-conserve/TR-Phase2SurveyGuidelines.pdf .

Channel 1 downstream in the Northern Tract parcel -- it is not shown in any BT survey 12/8/15 document; this surface stream flows through the culvert and into SGI property… had a standing pool…on the west of the culvert…with mucky soil bottoms on January 26, 2019. (S. Roy)

Bog Turtles -- Was PROPER PROTOCOL observed during the search? (S. deVeer/W. Morrison)

Response:

Responding to Mr. Roy's question, a Phase I Bog Turtle Habitat Assessment Report was prepared and submitted by Andrew M. Brookens, an individual listed by the PFBC as a qualified bog turtle surveyor. The full report is provided in Module 1 of the non-coal mining application. The habitat assessment was conducted in accordance with the USFWS Guidelines for Bog Turtle Surveys, Bog Turtle Northern Population Recovery Plan, April 2006. The assessment considered the suitability of hydrology, soils and vegetation in the Northern Tract area to support bog turtle habitat. That assessment concluded:

> Based on the landscape position and setting of these habitats, lack of supporting vegetative structure, 80-100% canopy closure from the mature forest setting, and the lack of supporting soil structure/subterranean tunnels, the aquatic resources identified within the Northern Tract were determined not to support typical habitat conditions for the bog turtle. Based on their nature as lotic headwater watercourses and lack of suitable mucky soil conditions for species support, Channel-01 and Channel-02 were determined not to support characteristic typical habitat conditions for the bog turtle.

While Mr. Roy claims to have spotted a bog turtle on a road near Lake Mae, the fact is that Lake Mae is about 3-4 miles east of the Northern Tract, and has no connection to the Northern Tract.

Most recently, in response to the siting of a bog turtle in a wetland some distance north of the Northern Tract, expert staff from the USFWS and PFBC, together with representatives from PADEP, PA Game Commission, and DCNR Michaux State Forest, conducted a site visit of the Northern Tract. The USFWS's letter dated April 2, 2019 (**Appendix 12.6**) summarizes the results of that site visit. It notes the determination that given the location of the wetland in relation to the project, no direct or indirect adverse effects to the hydrology of the offsite wetland are anticipated, and the USFWS states the conclusion: "Based on the aforementioned information, and DEP's expert opinion, and ongoing groundwater monitoring, the Service concurs with DEP's conclusion and we conclude that the effect of the proposed project on bog turtles will be insignificant or discountable." After the site visit, and as part of its PNDI update letter, PFBC stated a similar conclusion: "[W]e do not anticipate any adverse impacts to the Bog Turtle from the proposed project." (**Appendix 12.3**)

In contrast to the conclusions from qualified bog turtle surveyors and expert agency staff based upon ***on-site observations***, the comments offered by Princeton Hydro's Jack Szczepanski

premised upon viewing “photos” do not warrant serious consideration, particularly given that he is not listed as a qualified bog turtle surveyor in Pennsylvania.[29]

12.6 Nodding Trillium

Comments:

In regard to Nodding Trillium species, Princeton Hydro concludes that the number of plants affected by Mine Expansion is much greater than SGI anticipates. This is due to the fact that more than half of the existing contributory drainage area to two hillside associated wetland habitats will be removed as a result of mine expansion. "If the 2 wetlands are altered, then the tributary to Tom's Creek and the Nodding Trillium population will experience much more detrimental effects from Quarry development." (FOTC/Fair Shake)

Monitoring is useless if it is not done on such a frequent basis and thoroughly enough to catch the beginning stages of decline. What if the monitoring shows significant damage to the Nodding Trillium colony and/or the wetlands?

Response:

The Nodding Trillium issue was thoroughly discussed in **Section 10.1** of the SGI First Responses. As noted in SGI’s prior response, Nodding Trillium is neither a threatened or endangered species, and its current status as a “species of special concern” does not qualify for consideration under 25 Pa. Code §77.126(a)(10). That said, SGI conducted surveys, proposed a plan to avoid Nodding Trillium in the maintained buffer area, and established a monitoring plan as requested by DCNR. DCNR most recently reiterated its position concerning the project in its PNDI response update letter dated April 1, 2019 (**Appendix 12.2**), where it states: “With the avoidance of nodding trillium within the Maintained Buffer and the completion of a monitoring program, ***DCNR has determined that no impact is likely***.” (emphasis added).

13. Past Discharge Events & Past Compliance with Environmental Regulations

Comments:

DMR discharge monitoring reports show long range compliance with total suspended solids, but these reports historically show noncompliance. (D. Swope)

Why doesn’t PADEP do the testing? (J. Dull)

There were a number of these violation reports as one would expect from a large company dealing in potentially toxic materials. … My point here is not that there are violations but how can I trust a corporation that’s allowed to police itself when an inspection does find fault, the penalty in dollars is laughable or nonexistent. Then if SGI complies, all is well and the case is closed. (J. Dull)

PADEP should have a third party or themselves conducting testing according to generally accepted sampling protocol. (J. Dull)

[29] https://www.fws.gov/northeast/pafo/pdf/BT%20Surveyors%206-4-18.pdf .

Past behavior is indicative of future behavior. … SGI has a list of past violations on its existing operations. If the company can't conduct itself appropriately now, how can we expect it to do so in the future? (M. Rogers/R. Rogers)

SGI and predecessor companies have been cited by PA DEP for multiple violations of the act. Please cross reference the citizen testimony by Jeff Dull… (H. Keahey)

SGI has failed to demonstrate, as indicated by past or continuing violations, that it has not shown a lack of ability or intention to comply with the Non-Coal Mining Act. (H. Keahey)

Response:

Under the NPDES permits issued for the Charmian facility, SGI is required to sample its discharges from the Lower Mill Pond system a minimum of two times per month and file Discharge Monitoring Reports ("DMR") quarterly.[30] Contrary to the comment suggesting that those DMR reports historically show non-compliance, the record of discharge sampling shows that with very few exceptions, SGI has complied with the total suspended solids ("TSS") limits in its NPDES permit. Moreover, as discussed in the SGI First Responses, the company has undertaken continuing efforts to improve its stormwater and treatment systems in order to assure continuing compliance with regulatory limits. See SGI First Responses §3.

The compliance items cited by Mr. Dull in his oral testimony actually reflects a remarkably clean compliance history that evidences SGI's ongoing efforts to improve operations and swiftly correct compliance issues. Mr. Dull cited to six notices of violation over the past 11 years. Of those:

- One (217335) wasn't even issued to SGI, but rather to a contractor (Mellott Company) who had a fugitive dust problem with respect to its equipment.

- Two involved blasting, with ID 2257195 relating to failure to maintain a blast record for one blast event (out of literally many hundreds of blasts conducted over the past 11 years); and ID 233195 concerning exceedance of an overpressure dB limit in 2014, with no repeat issues over the past five years.

- Two fugitive dust citations (1825511 in 2009 and 2317327 in 2014) were both short term events that were swiftly corrected.

- The one water quality citation referenced (2764265) involved a discharge in July 2018 when the SGI facility experienced an extraordinary storm of 4.5 inches in just 2 hours, causing a discharge through the emergency spillway of Lower Mill Pond 3. Since that event, SGI has substantially increased storage capacity in the system that leads to the

[30] NPDES Permit No. 6477SM5 dated October 31, 2016.

Lower Mill Pond system through a substantial expansion of the Blue Mountain Pond that was completed in January 2019.

SGI consistently conducts all monitoring required under PADEP permits and regulations. SGI's track record demonstrates a strong commitment to not just comply with minimum standards and requirements, but to pursue ongoing improvements and practices to maintain compliance.

14. Light Impacts

Comments:

SGI's local plant in Fountain Dale harshly illuminates the night sky every night all year round. It never gets dark there anymore. (S. Ungar)

Response:

The Applications under review relate solely to the proposed Northern Tract Quarry, and do not involve any modification or change in operation to the existing SGI processing facilities, which are located elsewhere on the Charmian property.

With respect to light impacts associated with the Northern Tract Quarry, see the discussion in Section 12 of the SGI First Responses regarding the measures which SGI is proposing to mitigate light impacts, including maintenance of a wooded buffer, limited equipment use during nighttime operations, and positioning of stationary lights to minimize off-site impacts.

15. Reclamation Plan

15.1 Northern Tract's Reclamation Plan Compliance with Reclamation Plan Requirements

Comments:

Any DEP action to approve the NT Quarry must also require that an escrow fund for reclamation to established…increased annually to cover any impact of inflation, and SGI should undertake reclamation…as the work proceeds, not decades in the future. SGI should also proceed to restore Miney Branch. (P. Hoff/E. Hoff)

Response:

Issues relating to the reclamation plan for the Northern Tract were addressed at some length in Section 13.1 of the SGI First Response. The suggestion that an "escrow fund" be created is unwarranted, given that PADEP regulations contained in 25 Pa. Code Ch. 77, Subch. D, require the maintenance of a full-cost reclamation bond, which would cover the anticipated costs of reclamation should the operator fail to fulfill its obligation.

15.2 West Ridge Quarry and Pitts Quarry Reclamation

Comments:

The company makes a new argument privately, if not publicly, that unless it is given a permit to slice off a historic mountain top and open a vast new pit, it will be unable to afford to obey the law and fill in and reclaim some of the old pits. (S. Unger)

Number two. SGI's reclamation or lack of reclamation. It's in plain view. (H. Keahey)

At this writing here are three vast visible pits. One pit, known as the Western Ridge, has not been quarried since 1996. (FOTC 1/14/19 letter to Gov. Wolf)

The Western Ridge pit ceased to be quarried in 1996. … Two decades have lapsed: that hardly can be considered "concurrent" reclaiming. (H. Keahey)

SGI has failed to concurrently reclaim land disturbed by its vast surface mining operations as required by 25 Pa. Code §77.595. (H. Keahey)

Response:

See Section 13 of SGI First Responses for responses concerning the Northern Tract's reclamation plan and reclamation of previously utilized quarries.

SGI has never made the argument, privately or publicly, that it will be unable to reclaim its property unless it is granted a permit for the Northern Tract. The Company understands its obligations under the PADEP-approved reclamation plans for the West Ridge Quarry and Pitts Quarry, and those obligations are backed by full-cost bonds posed with PADEP.

16. Impacts on Local Natural Environment

Comments:

*The site resides within the area of the South Mountain Initiative / South Mountain Partnership. … The area is part of the Michaux State Forest Culp's Hill Land Management Unit. (*Unidentified Commenter*)*

Response:

The commenter refers to an undated **draft** Michaux State Forest Resource Management Plan prepared by DCNR[31] which proposes a "Culp Ridge Landscape Management Unit" where DCNR would seek to encourage actions to maintain and improve certain habitat, inventory and manage sensitive natural resources on state-owned forest land, inventory and protect cultural resources, maintain a trail system and promote and restore a cove forest community. It is not clear from the map in this draft document whether the SGI property is within the proposed LMU, but in any event, the draft document does not indicate any assertion of control or regulation over privately-owned lands.

[31] http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20033649.pdf at pg. 86-93.

The South Mountain Partnership is an organization of citizens, associations, planning agencies and other entities who are working together to promote the South Mountain landscape - an area that is broadly defined to include large portions of Adams, Franklin, Cumberland and York Counties.[32] Nothing in the Partnership's structure or program purports to regulate development of private lands or preclude SGI's mining operations of the Northern Tract. Notably, SGI's plans incorporate features, including forested buffer areas around the proposed quarry excavation, that help to address the Partnership's goals of preserving the overall landscape of South Mountain.

17. Impacts on Property Values

Comments:

As residents try to escape SGI nuisances, property values plummet. New, lower assessments will be demanded by the residents who cannot afford to escape. (FOTC 1/14/2019 Letter to Gov. Wolf).

Prospective buyers of houses have decided not to buy in our area when they learn of the quarry and its 24/7 operations and possible expansion. Property values are plummeting. (P. Shivers/N. Shivers)

The impacts are already being felt by neighbors who have endured well-documented hardships and hazards to heal and safety as a result of SGI's existing operations… (P. Shivers/N. Shivers)

Neighboring property owners are unable to leverage equity because equity is disappearing? This is directly related to SGI operations that depress property values due to nuisances… (FOTC 1/14/19 letter to Gov. Wolf)

The social and economic study must calculate the inevitable loss of residential property taxes. (FOTC 1/14/19 letter to Gov. Wolf)

Please address plummeting real estate values, destroyed view sheds, toxic dust, dangerous traffic… (H. Keahey)

Response:

In response to the concern that was expressed by commenters that SGI's current and future operations adversely impact the value of residential properties in the area, SGI engaged a well-recognized economic consulting firm of Econsult Solutions, Inc. ("**ESI**") to both review available literature on quarry impacts on property values and conduct an evaluation of property values in the area around the Charmian facility. ESI's report is attached as **Appendix 17.1**, the results of which are briefly summarized below.

As explained in ESI's report, it is well recognized that residential property values may be impacted by a variety of factors, including the characteristics of the property itself (e.g., lot size/land area, building square footage, structure condition), general economic and employment conditions (e.g., recession vs. expansion cycles), and characteristics of the surrounding area. A method commonly used to evaluate the relative importance of each attribute or variable on

[32] https://southmountainpartnership.org/about-us .

property value involves what is referred to as a hedonic regression model. Hedonic modeling can provide estimates of the average impact that any property attribute (e.g., lot size or square feet of residence) or neighborhood attribute (e.g., location in relation to some other land use) contributes to property values while controlling for the impact of other variables.

There is extensive literature applying such regression models to study the effects of certain perceived environmental disamenities (proximity to landfills, hazardous waste sites, and power plants) on residential property values, with mixed results (e.g., some showing impacts and some not). In contrast, there is relatively limited literature as to whether a negative property value effect results from quarries, and many of the studies that do exist are non-peer-reviewed.

The most commonly cited study of the residential property value impacts of quarries was a relatively short (250-word) paper prepared by Professor Patricia Hite of a quarry near Delaware, Ohio.[33] Although the Hite paper purported to find a positive relationship between residential property values and distance from the quarry (i.e., increased property values as one moves further away from the quarry), the methodology and results of the Hite paper analysis have been drawn into question.

A recent study prepared by Phoenix Center in 2018,[34] (**Appendix 17.2**) points out many of the shortcomings of the Hite paper. The Phoenix Center attempted to replicate the results of the Hite study using data from the same quarry and the same methods as the original paper and found that, contrary to the Hite paper's conclusions, reported transaction prices for residential properties *decreased* as the distance from the quarry increased. The coefficient for distance from the quarry from the regression model prepared by Pheonix Center was -.141 (compared to the results reported in the Hite paper of +.125). The Phoenix Center undertook a similar analysis for properties surrounding the Rogers Group Quarry near Murfreesboro, Tennessee. At that site, the regression model again showed that the price-distance relationship was negative (that is, controlling for other variables, properties a further distance from the quarry tended to have lower prices). In addition, Grant (2017)[35] analyzed the impacts of quarries on property values in Wellington County, Ontario. The analysis found a small positive impact associated with being close to a quarry.

To evaluate the residential property value impact of SGI's existing quarry and processing facility, ESI undertook a rigorous statistical analysis of 561 arms-length residential property transactions in Adams and Franklin Counties during the period from 2000 to 2019 for properties

[33] D. Hite, Summary of Analysis: Impact of an Operational Gravel Pit on House Values: Delaware County, Ohio, Working Paper (2006) (available at: http://www.accpg.org/docs/Gravel%20Pit%20Interim%20Zoning/Storey%20Pit/exhibit_b.pdf)

[34] G. Ford and R. Seals, Quarry Operations and Property Values: Revisiting Old and Investigating New Empirical Evidence , The Phoenix Center (March 2018) (available at: http://www.phoenix-center.org/pcpp/PCPP53Final.pdf)

[35] A. Grant, Estimating the Marginal Effect of Pits and Quarries on Rural Residential Property values in Wellington County, Ontario: A Hedonic Approach. (June 2017), available at: https://atrium.lib.uoguelph.ca/xmlui/bitstream/handle/10214/10903/Grant_Alison_201706_MSc.pdf?sequence=3&isAllowed=y).

located within 3 miles of the SGI Charmian facility.[36] Data on reported property transactions was obtained from the official property records of both counties. ESI used a hedonic regression model analysis that controlled for the known variables in reported property characteristics (lot size and residential square feet) and accounting for economic conditions (i.e., the housing crash of 2007 and subsequent recovery). The regression analysis showed coefficients for the price/distance to quarry relationship in the range of -0.033 to -0.086. Translated, the model indicated that for each mile that a house is located further away from the quarry, residential property prices on average ***decrease*** by between 3.3 percent and 8.6 percent. At the same time, the t-values for the quarry distance variables ranged from -0.40 to -0.89, which indicates that the statistical relationship between residential property values and distance to the quarry is weak - in other words, the quarry does not have a statistically significant impact on nearby property values.

ESI concluded:

> Based on our analysis, we find that the SGI quarry has not had a negative impact on nearby property values based upon actual reported sale price data and analysis that controls for other property variables. The results are robust to the data used (properties only within three miles of quarry vs from both counties) and distance specification (linear distance vs. distance bands). Given the fact that the intensity of the operations of the quarry is not going to change, the continued operations of the quarry should not have a negative impact on near-by property values.

18. Condition Use Approval Compliance

Comments:

[I]n that conditional zoning there are thinks like houses should not vibrate when blasting goes off. And that water should not cross boundaries onto other property, which to me includes crossing into Tom's Creek. … Hamiltonban Township has the right to actually rescind on that zoning if it's broken. (P. Kellett)

*The Hamiltonban Conditional Use Permit contains a requirement which SGI has chosen to ignore: … "There shall be no vibration which is discernible to the human sense of feeling beyond the immediate site on which such use is conducted." (*Unidentified Commenter*)*

"SGI holds a duly-authorized conditional use zoning approval allowing for the Northern Tract quarry operation." [quoting SGI response] …review the so-called conditional use hearing. SGI put a lid on citizens' rights by objection to citizen and organizational standing to participate. (FOTC 1/14/19 letter to Gov. Wolf)

[36] ESI also conducted a regression analysis using data from all 35,310 arms-length transactions in Adams and Franklin Counties and found the results to be similar to the model results using data from within three miles of the SGI quarry.

Response:

A full and complete copy of the Conditional Use Approval is provided in **Appendix 16.1**. That approval does not contain conditions purporting to regulate blasting, nor does it say anything about water crossing unidentified "boundaries."

The Hamiltonban Township Zoning Ordinance[37] requires that mining operations, which are allowed as a conditional use, comply with PADEP blasting and other operational standards. (See Section 1302). SGI complies with those standards. Section 1303 of the Zoning Ordinance contains language restricting vibrations from industrial uses (other than mining operations) from being discernable beyond the site; but that section explicitly makes clear that surface mining operations are not subject to those provisions but rather are governed by the prevailing applicable performance standard requirements of PADEP. (See Section 1302(a))

Beyond the fact that Hamiltonban Township has not imposed the alleged conditions, we note that Section 16 of the Non-Coal Surface Mining Conservation and Reclamation Act, 52 P.S. § 3316, preempts local zoning ordinances which attempt to regulate the operational aspects of non-coal surface mines, which would preclude municipal attempts to regulate blasting and stormwater.[38]

19. SGI's Acquisition of Northern Tract

Comments:

The Northern Tract area previously belonged to the Glatfelter Tree Farm. The parcel put up for sale. Adams County passed a bond issue referendum of $10,000,000 to protect our water. A lot of that money was used to purchase this tract. We were led to believe that it would transferred into Michaux, strictly a forest, and be preserved. It was swapped away for equivalent acreage, but it was not equivalent value as the law requires. (P. Kellett)

*SGI is not to be trusted because of the devious secret swap of land it participated in to get the NT site. (*Unidentified Commenter*)*

Pennsylvania has turned a blind eye to the suspicious land swap dealings between Michaux State Forest and Specialty Granules Inc. … People donated money… to protect the land and somehow this was traded anyway through dealings in a session closed to the public. (J. Dull - Sierra Club/FOTC Petition)

The previous administration…worked a swap of what was intended to be State Park land such that Specialty Granules illegally acquired it. (S. Rogers-Frost - Sierra Club/FOTC Petition)

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[37] Available at: http://www.adamscounty.us/Munic/HamiltonbanTownship/Documents/Ordinances/Complete%20Zoning%20Ordinance%20-%20All%2018%20Articles%20(Ordinance%202007-02%20as%20amended%20by%20Ordinance%202008-02).pdf

[38] *See, e.g., Gibraltar Rock, Inc. v. New Hanover Twp*, 118 A.3d 461 (Pa. Commw. 2015) (municipal stormwater management ordinance preempted); *Tinicum Twp. v. Delaware Valley Concrete*, .812 A.2d 758 (Pa. Commw. 2002) (municipal blasting regulations preempted).

The third letter was written by the Hamiltonban Township Solicitor on behalf of the Hamiltonban Township Board of Supervisors in clear opposition to the now infamous land swap that ultimately resulted in a breach of public trust. (FOTC 2/11/19 letter with attachments)

Pine Hill was itself in the news in 2011 when a "back door" deal resulted in the "swap" by PA DCN of Pine Hill…for 3 small inholdings. (FOTC/Upper Potomac Riverkeeper/HGAC 8/30/18 letter to Gov. Wolf)

This land (Pine Hill) - called the "northern Tract by SGI - was never supposed to be mined. … Pine Hill fell into SGI's hands as a result of a land swap that was carried out entirely in secrecy. (P. Shivers/N. Shivers)

It is clear that the taxpayers of Adams County would not have turned Pin Hill over to the state…if they had thought that the state would…put Pine Hill in the hands of SGI to expand its mining operations. (P. Shivers/N. Shivers)

Please consider that…Pine Hill has an assessed land value of $9,700… The taxes on that assessment re less than $2,000. Please compare that valuation with all citizens' parcels surrounding Pine Hill. Without doubt the public trust of the community in government wheeling and dealing with SGI has been severely compromised. (H. Keahey)

Response:

The background and process relating to the exchange of properties between ISP (now renamed SGI) and the Department of Conservation and Natural Resources are described in §15 of the SGI First Responses and the related appendices. The exchange transaction was carefully vetted, publicly noticed and debated. As part of the Exchange Agreement, DCNR rendered the explicit "opinion that the collective value of the Sleightholm Land, the Benchoff Land and the Nagle Land to be acquired by DCNR from ISP … is equal to or exceeds the value of the DCNR Exchange Land to be transferred from DCNR to ISP, that the Sleightholm Land, the Benchoff Land and the Nagle Land are as well adapted to State Forest purposes, and that the exchange will be to the advantage of the State Forest interests, which findings are made in accordance with the provisions of 32 P.S. § 131, *et seq.*" SGI First Response, Appendix 15.1, at pg. 2.

DCNR exercised its authority and discretion in entering into and completing the exchange transaction. That transaction was consummated eight years ago in 2011, and was not legally challenged by any party. Review of that transaction does not fall within the jurisdiction of PADEP, and DCNR's actions cannot be collaterally attacked as part of these PADEP permit proceedings.

20. **Impact on Chesapeake Bay**

Comment:

The runoff from this project jeopardizes the hard won gains of the Chesapeake Bay watershed. (P. Warehime - Sierra Club/FOTC Petition).

Response:

As discussed above in **Section 3**, the SGI operation is not a significant source of nutrients (i.e., phosphorous and nitrogen), and stormwater runoff from the facility is controlled under the terms of the applicable NPDES Permits which impose total suspended solids (sediment) limitations designed to protect the receiving waters which ultimately flow to the Bay.

LIST OF APPENDICES