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Via Email

October 10, 2024

Corrie Magee
Adirondack Park Agency
P.O. Box 99
Ray Brook, NY 12977

**RE: Comments on Application by Barton Mines, LLC
APA Project No. 2021-0245
Ruby Mountain Mine Expansion
Town of Johnsburg, Warren County**

Dear Ms. Magee:

Protect the Adirondacks! ("PROTECT") submits these comments to the Adirondack Park Agency ("APA") on the application by Barton Mines, LLC ("Barton") for expansion of its mountaintop Ruby Mountain Mine in the Town of Johnsburg, Warren County ("the Project").

Summary of Comments

As discussed in detail below, Barton's application and the expert reports submitted by PROTECT and others previously and during this public comment period demonstrate that the Project will have undue adverse impacts on the natural, scenic, aesthetic, ecological or open space resources of the Adirondack Park. Among other things, the Project will:

(i) significantly alter and degrade the Critical Environmental Area ("CEA") adjoining the Siamese Ponds Wilderness Area by extending Barton's open pit mining operations and mine tailings waste pile onto more than 26 acres of the CEA, necessitating the removal of over 16,000 trees. In addition, Barton's current encroachment into approximately 3.5 acres of the Siamese Ponds Wilderness CEA is not authorized by Barton's current APA permits;

(ii) have an undue adverse impact on Adirondack Park resources because Barton has not demonstrated that the tailings waste pile, which has not been engineered, is currently stable and that the proposed lateral expansion of the

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waste pile by 40 acres and vertical expansion of the pile by 100 feet in height will not result in catastrophic failure of the pile;

- (iii) have undue adverse visual and aesthetic impacts because of the massive scale and height of the mine tailings waste pile, which will be visible from multiple public viewpoints in the Forest Preserve and from sensitive receptors on private land such as Garnet Hill Lodge. Barton's claim that visual impacts will be mitigated by revegetating the waste pile is unsupported because Barton's pilot revegetation efforts have been unsuccessful;
- (iv) have undue air quality, scenic and aesthetic impacts because Barton's dust suppression efforts have been unsuccessful and the company is proposing no new dust mitigation measures as part of its application; and
- (v) have an undue adverse impact on Park resources because Barton is proposing no mitigation whatsoever for noise impacts, despite numerous complaints from neighboring homeowners about current noise levels and an expert noise consultant has concluded that the increase in projected future noise levels violates the DEC noise policy.

In addition, Barton's application and APA's review suffer from the same fatal legal deficiency because Barton has failed to provide, and APA has failed to require, an analysis of the Project's greenhouse gas ("GHG") emissions as required by the Climate Leadership and Community Protection Act. Moreover, Barton has failed to provide an analysis of the climate change impacts of the Project's proposed clearcutting of approximately 36 acres of forest—an analysis specifically requested by APA staff—and Barton's brief and conclusory statements about the project's climate change impacts are woefully insufficient for a project of this magnitude.

It bears emphasis that Barton's application is singularly lacking in discussion of alternatives to the magnitude, scope, and operations of the Project as originally proposed. The application makes clear that Barton has not seriously considered, much less proposed or evaluated, a less intrusive, massive and environmentally disruptive expansion of its mine. As acknowledged by Barton, the mine can continue to operate as currently permitted for another eight years. Although Barton has claimed in its public relations materials that the massive mountaintop mine expansion is necessary for the continuation of its business, to our knowledge the company has failed to provide any financial or mineral resources projections or data to APA to support this claim. Thus, there is no basis for APA to assume that a more modest expansion of the mine would not be financially viable.

For all of these reasons, PROTECT urges APA to deny Barton's permit application because the APA Board cannot, based on the current administrative record, make the requisite statutory finding that the Project will "not have an undue adverse impact upon the natural, scenic, aesthetic, ecological, wildlife, historic, recreational or open space resources of the park or upon the ability of the public to provide supporting facilities and services made necessary by the project, taking into account the commercial, industrial, residential, recreational or other benefits that might be derived from the project." Executive Law § 809(10)(e). At the very least, APA must hold an adjudicatory hearing due to the numerous substantive and significant issues raised concerning

Barton's application and the high degree of public interest in the proposed mine expansion. *See* 9 NYCRR § 580.2.

Background

Environmental Setting of the Project

The Project is located in the Adirondack Park and borders Forest Preserve lands that are part of the Siamese Ponds Wilderness Area. As recognized by the New York Court of Appeals, “[t]he Forest Preserve is a public owned wilderness of incomparable beauty.” *Protect the Adirondacks v. New York State Dept. of Environmental Conservation*, 37 NY3d 73, 79 (2021); *see also Adirondack Wild: Friends of the Forest Preserve v. New York State Adirondack Park Agency*, 34 NY3d 184, 187 (2019) (“The Adirondack Park is a world-renowned treasure in our own backyard . . . [I]ncorporating more territory than Yosemite, Yellowstone, Glacier, Grand Canyon, and Great Smoky Mountain National Parks *combined*, there are 3,000 lakes and ponds and 30,000 miles of rivers and streams in the Adirondack Park.”) (emphasis in original). As recognized in the Adirondack Park Agency Act (“APA Act”), “[t]he Adirondack park is abundant in natural resources and open space unique to New York and the eastern United States. The wild forest, water, wildlife and aesthetic resources of the park, and its open space character, provide an outdoor recreational experience of national and international significance.” Executive Law § 801.

The Project site consists of approximately 580 acres located on the slopes of Ruby Mountain and Big Thirteenth Lake Mountain. The Project site is roughly bisected by Brown Pond Brook, which flows in a southerly direction. Lands east of Brown Pond Brook, which contain the active mine face, are classified Industrial Use by the Adirondack Park Land Use and Development Plan. Lands west of the brook, which include the mine tailings waste pile, are classified Resource Management. A small portion of the site, located southeast of Thirteenth Lake Road, is classified Rural Use. *See* Figure 1.

The Project site adjoins State-owned Forest Preserve lands on the east, west and north sides that are part of the Siamese Ponds Wilderness Area. Those portions of the Project site located within one-eighth mile of the Wilderness boundary are designated as a CEA pursuant to statute. Executive Law § 810(e)(1)(d).

Scores of residences are located in close proximity to the Project site. Garnet Hill Lodge, a tourist accommodation facility, is located on Thirteenth Lake Road.

Thirteenth Lake is a popular recreational resource located approximately one mile from the Project site. The lake is bordered almost entirely by Forest Preserve lands that are part of the Siamese Ponds Wilderness Area, and has a public boat launch that is accessible from Thirteenth Lake Road.

The Project site is located approximately 0.5 miles northeast of Thirteenth Lake and 0.2 miles east of Thirteenth Brook. Drainage features and stormwater from the Project site discharge into Thirteenth Brook. Thirteenth Brook enters into the Hudson River approximately four miles to the east of the Project site.



Figure 1. Photograph showing the mine tailings pile in the foreground, Thirteenth Lake in the middle, and the Siamese Ponds Wilderness Area in the background.

Current Mining Operations

Barton is the only mountaintop open pit mining operation in the Adirondack Park. The currently permitted Life of Mine area is 194.5 acres. Barton mines garnet-bearing rock by drilling and blasting, with a current lateral excavation limit of 28.8 acres and an excavation depth limit of 1,880 feet. Material is loaded from the active mine face by front-end loader and/or excavator into an off-highway haul truck and transported to an on-site crusher. Crushed material is conveyed to an on-site mill for further processing.

Waste tailings from the mill are disposed of in a massive on-site waste disposal site, euphemistically referred by Barton as the “residual materials facility.” The tailings waste is

separated by a cyclone system into fine-grained and coarse-grained waste. The fine-grained waste leaves the cyclone system in the form of a slurry that is disposed of in two ponds, and the coarse-grained waste is disposed of on the waste pile. The tailings waste disposal site occupies approximately 73 acres and is 2,275 feet above mean sea level (“amsl”) in height.

Barton is currently permitted to operate its milling operations 24 hours a day, 7 days a week. Barton’s on-site mining vehicles can operate between the hours of 7:00 a.m. and 3:30 p.m., Monday through Friday. Barton operates its crusher Monday through Saturday; an excavator and truck are used to feed the crusher on Saturday. Garnet produced at the Mill is permitted to be hauled to Barton’s Hudson River Plant by a single on-road haul truck for five trips per day. No truck traffic is permitted on Thirteenth Lake Road on any day between the hours of 10:00 P.M. and 7:00 A.M. Contractor truck traffic associated with the mining operation is restricted to 7:00 a.m. to 3:00 p.m., Monday through Friday.

Barton claims that it is currently permitted to conduct mining operations, including mining, extracting ore, conducting “support operations,” stockpiling material and constructing roads, in approximately 3.5 acres of the Siamese Ponds Wilderness Area CEA. Barton Applic. at 4. However, neither the conceptual approval for the Barton Mine (APA Order 78-401) nor its current permits (APA Permit 79-358 and Permit 87-39B) authorize Barton to conduct any mining operations within the Siamese Ponds Wilderness Area CEA.

Proposed Expansion of Mining Operations

Barton has applied to APA and the New York State Department of Environmental Conservation (“DEC”) for amendments to its current permits to allow the following expansion and increase in mining operations:

- Expansion into, and destruction of, an additional 26.1 acres of the Siamese Ponds Wilderness Area CEA;
- Expansion of the Life of Mine area from 194.5 acres to 267 acres, a net increase of 72.5 acres;
- Expansion of the lateral excavation limit of the mine from 28.8 acres to 69 acres;
- Expansion of the excavation depth of the mine from 1,880 amsl to 1,720 amsl;
- Expansion of the lateral extent of the tailings waste disposal site from 73 acres to 113 acres, an increase of 40 acres;
- Increasing the height of the tailings waste disposal pile from 2,275 feet amsl to 2,375 feet amsl;
- Modification of the reclamation within the quarry to allow placement of fine-grained tailings waste in containment cells to be created in the formerly mined out area; and

Increasing off-site truck trips from 5 to 16 trips per day.

Comments

I. The Proposed Mine Expansion Will Have Undue Adverse Impacts on Adirondack Park Resources and the Permit Application Must Therefore be Denied

A. Barton's Existing Expansion of its Mining Operations into the CEA Violates its APA Permit and its Proposed Significant Further Expansion of the Waste Pile and the Open Pit Mine into the CEA Will Have an Undue Adverse Impact

1. The CEA Provides a Critical Buffer Between the Siamese Ponds Wilderness Area and Barton's Industrial Mining Operations

The Siamese Ponds Wilderness Area consists of approximately 113,000 acres and is one of the largest Wilderness areas in the Adirondack Park, extending about 23 miles from north to south and about 17 miles from east to west at its widest part. Adirondack Park State Land Master Plan (Aug. 2019) ("Master Plan") at 78. The Siamese Ponds Wilderness includes 99 water bodies and 61 miles of trails. *Id.* at 79. The Master Plan notes that the Siamese Ponds Wilderness "is known for its lovely natural features . . . [including] Thirteenth Lake, Chimney Mountain, Puffer Pond, Siamese Ponds, Auger Falls on the West Branch of the Sacandaga River, the East Branch of the Sacandaga River, and John Pond." *Id.* at 78.

As stated in the Master Plan, "[a] wilderness area, in contrast with those areas where man and his own works dominate the landscape, is an area where the earth and its community of life are untrammelled by man--where man himself is a visitor who does not remain. A wilderness area is further defined to mean an area of state land or water having a primeval character, without significant improvement or permanent human habitation, which is protected and managed so as to preserve, enhance and restore, where necessary, its natural conditions . . ." *Id.* at 22.

The APA Act reinforces the Master Plan's definition of Wilderness by classifying those portions of private lands located in Resource Management that are within one-eighth mile of a Wilderness area as a CEA. Executive Law § 810(e)(1)(d). *See also* 6 NYCRR § 617.2(i) (defining a CEA as "a specific geographic area having exceptional or unique environmental characteristics").

The statutory designation of lands within one-eighth mile of a Wilderness boundary as a CEA underscores the State's recognition of the sensitivity of Wilderness areas to private land development on adjacent lands that could jeopardize, interfere with or degrade the attributes that caused the area to be classified Wilderness. The statutory CEA thus provides a critical buffer between a Wilderness area and development activities on private lands. It is self-evident that industrial mining operations are wholly inconsistent with the Master Plan's definition of a Wilderness area and, indeed, as discussed below, APA has previously recognized the critical role of the Siamese Ponds Wilderness CEA in providing a buffer from Barton's mining activities. *See* Figure 2.



Figure 2. Photograph showing the mine (quarry at the bottom and tailings pile at the top) and the Siamese Ponds Wilderness Area in the background. Barton seeks to encroach upon 26 acres of the CEA in the forested area to the right of both parts of the mine.

2. Barton's Expansion of Mining Operations Violates its APA Permits

The APA Order providing conceptual approval for the commencement of mining operations at the Barton site specified that “[n]o development will occur in the Resource Management portion of the site within one-eighth mile of State forest preserve classified wilderness.” APA Order 78-401 at 5 (emphasis added). Several years later, Barton applied for and APA approved an amendment to the permit allowing expansion of the tailing waste disposal into two areas: the Tailings Valley site and the Finger Valley site. The amended permit specifically noted that a portion of the planned Finger Valley disposal site would extend into the CEA, but APA expressly reserved the right to

prohibit use of the Finger Valley site for disposal if additional disposal areas became available later. *See* APA Permit 87-39.

However, when it became clear that use of the Finger Valley site for waste disposal would not be feasible, Barton applied for and APA approved another permit amendment that eliminated the Finger Valley disposal site and provided that all tailings waste disposal would occur at the Tailings Valley site. *See* APA Permit 87-39B. As noted in the amended permit, which remains in effect, elimination of the Finger Valley disposal site, before any disturbance occurred, kept the Finger Valley site in its natural condition and “*significantly increases the undisturbed buffer to the adjoining State Wilderness area.*” *Id.* at 6 (emphasis added).

Barton claims that is currently permitted to conduct mining operations, including mining, extracting ore, conducting “support operations,” stockpiling material and constructing roads, in approximately 3.5 acres of the Siamese Ponds Wilderness Area CEA. Barton Applic. at 4. However, Barton fails to cite to any Findings of Fact or Conditions in the currently applicable permits allowing such mining operation to occur within the CEA. To the contrary, neither the conceptual approval for the Barton Mine (APA Order 78-401) nor either of the currently effective permits (APA Permits 79-358 and 87-39B) include any provisions authorizing Barton to conduct mining operations within the Siamese Ponds Wilderness Area CEA. Consequently, Barton’s expansion of mining operations into the Siamese Ponds Wilderness Area CEA violates its APA permits.

3. Barton’s Proposed Expansion Will Destroy a Significant Portion of the CEA

Barton acknowledges that “[t]he proposed expansion will increase permitted activities within the CEA to 29.6 acres, a net increase of 26.1 acres.” Barton Applic. at 44. This proposed expansion of Barton’s industrial activities into the CEA will, by Barton’s own admission, require the destruction of approximately 16,678 trees. *Id.* at 45. Barton proposes to extend both the mining excavation area and the tailings waste pile into the CEA, coming within 225 feet of the boundary line with the Siamese Ponds Wilderness Area. *Id.* (See Figure 3).

As previously acknowledged by APA, the CEA provides a critical buffer between Barton’s industrial mining operations and the Siamese Ponds Wilderness Area. The intrusion of a massive tailings waste pile and open pit mining into the CEA would obliterate a large portion, approximately 36%, of the CEA on that side of the mine and severely limit its effectiveness as a buffer. This is fundamentally at odds with the purpose of its statutory designation as a CEA and will therefore have an undue adverse impact on Adirondack Park resources. APA should not permit any further expansion of the mine into the Siamese Ponds Wilderness CEA.

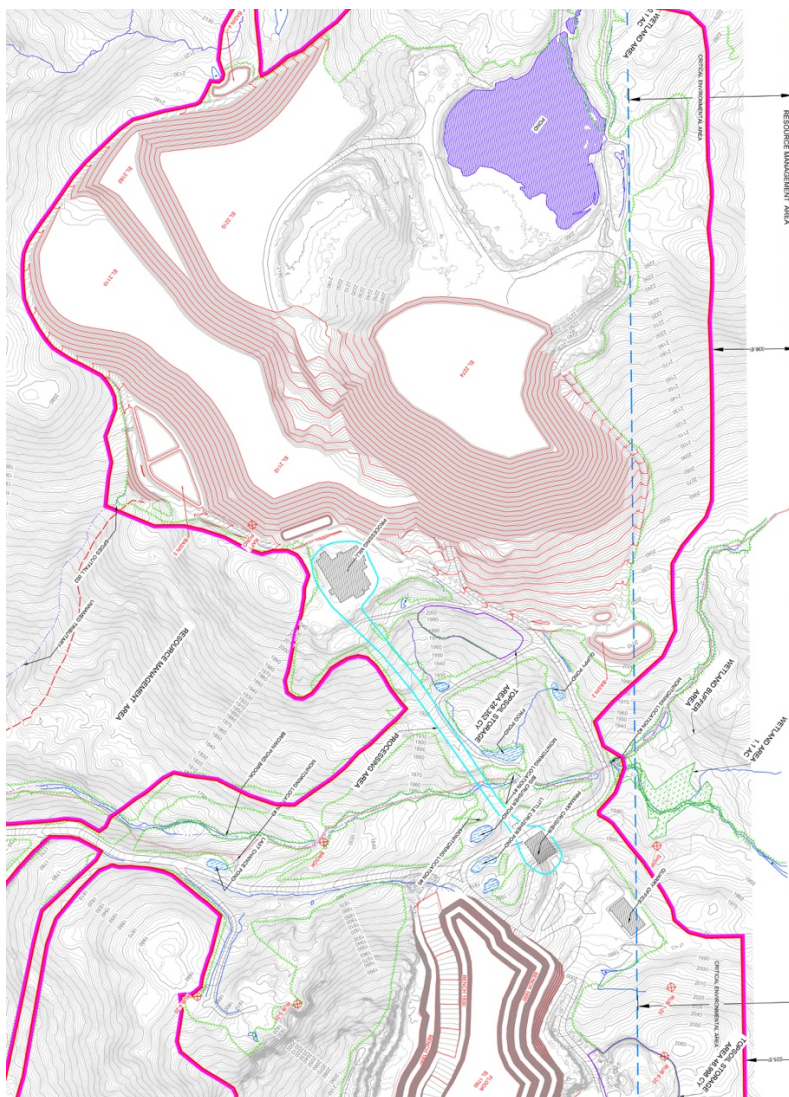


Figure 3. Map showing the boundary line between Barton's property and the Siamese Ponds Wilderness Area. Barton proposes to expand the quarry to within 225.5' of the Wilderness and the tailings pile to within 336.6' of the Wilderness. The property boundary is the green line, CEA boundary is the blue dotted line, and the boundary of the mine is the purple line.

B. Expansion of the Tailings Waste Pile Will Have an Undue Adverse Impact on Park Resources Because Barton has Failed to Show That the Waste Pile Will Remain Stable and Will Not Fail

Barton's engineering consultant has acknowledged that the tailings waste pile is characterized by "the general lack of engineered fill placement." Ltr. From Knight Piesold Consulting to Jacob Barnhart, Barton (Oct. 30, 2023) at 1. As a result, Barton's consultant states that "an observational approach has been and will continue to be taken with regards to the geotechnical design and associated construction" of the waste pile. *Id.*

As set forth in the enclosed expert report from PROTECT's engineering consultant, Sterling Environmental, Barton's conclusion that the tailings pile will remain stable during the proposed massive expansion of this un-engineered waste dump is unsupported:

It is STERLING's professional engineering opinion that the application contains insufficient information to support a determination that the Residual Minerals Storage Facility (hereinafter referred to as the "RM Facility") will remain stable and will not fail over the life of the proposed mine expansion. Specifically, the August 2024 Geotechnical Report lacks the data necessary to support a conclusion that the RM Facility will be stable over the life of the expansion, and the report fails to adequately analyze and discuss the consequences and potential impacts of a slope failure.

Sterling Environmental Report (Oct. 9, 2024) enclosed herein as Exhibit A, at 1.

In addition, Sterling points out that the "observational approach" proposed by Barton to increasing the size of the waste pile is deeply flawed:

There are two problems with this approach for the mine expansion. First, an observational approach is not appropriate for the long-term construction of the RM Facility where one of the observations could be a large slope failure. Second, while many construction projects operate under a "design-build" approach, such an approach includes specific performance requirements and the roles and responsibilities of involved personnel are clearly defined. In contrast, the observational approach described in the October 2023 report and carried forward in the proposed monitoring plan in the August 2024 report is ambiguous, lacks specific performance requirements, fails to describe the roles and responsibilities of involved personnel, *and is therefore insufficient to ensure that long-term stability of the expanded RM Facility will be achieved.*

Id. (emphasis added).

Sterling also points out that Barton's slope stability analysis is unreliable and does not support its conclusion that the waste pile will remain stable, including because it fails to consider that the waste pile is located in a seismically active area:

The Geotechnical Report includes large deep seated failure scenarios that barely achieve the minimum FOS of 1.3. The failure surfaces cross through several material layers that are assigned specific material properties that are based on a limited field investigation and testing program. Good engineering practice is to perform a sensitivity analysis on the model input parameters, such as material properties or groundwater elevation, to assess the impact of a change in those parameters on the FOS. This is particularly important given the size of the failure surfaces at the RM Facility and the closeness of the scenarios to the minimum FOS.

For all practical purposes, the RM Facility is a landfill. In New York, the NYSDEC has specific stability analysis requirements for landfills, including a requirement to perform a seismic stability analysis for any facility located in a seismic impact zone. The RM Facility is located in a seismic impact zone as indicated on the United States Geological Survey (USGS) Seismic Hazard Map of New York (2014). A seismic analysis is critical to the assessment of potential adverse impacts based on the size and complexity of the RM Facility and the consequences of a failure.

Id. at 2.

The Sterling report makes clear that Barton's conclusion that the tailings waste pile is stable and will not fail during the proposed expansion is unsupported by reliable data and is at odds with good engineering practice. Given the uncertainty regarding the current stability of the waste pile, the proposal to significantly expand it laterally and vertically risks catastrophic failure and will therefore have an undue adverse impact on the natural resources of the Adirondack Park and poses a risk to the safety of the public. (*See* Figure 4).

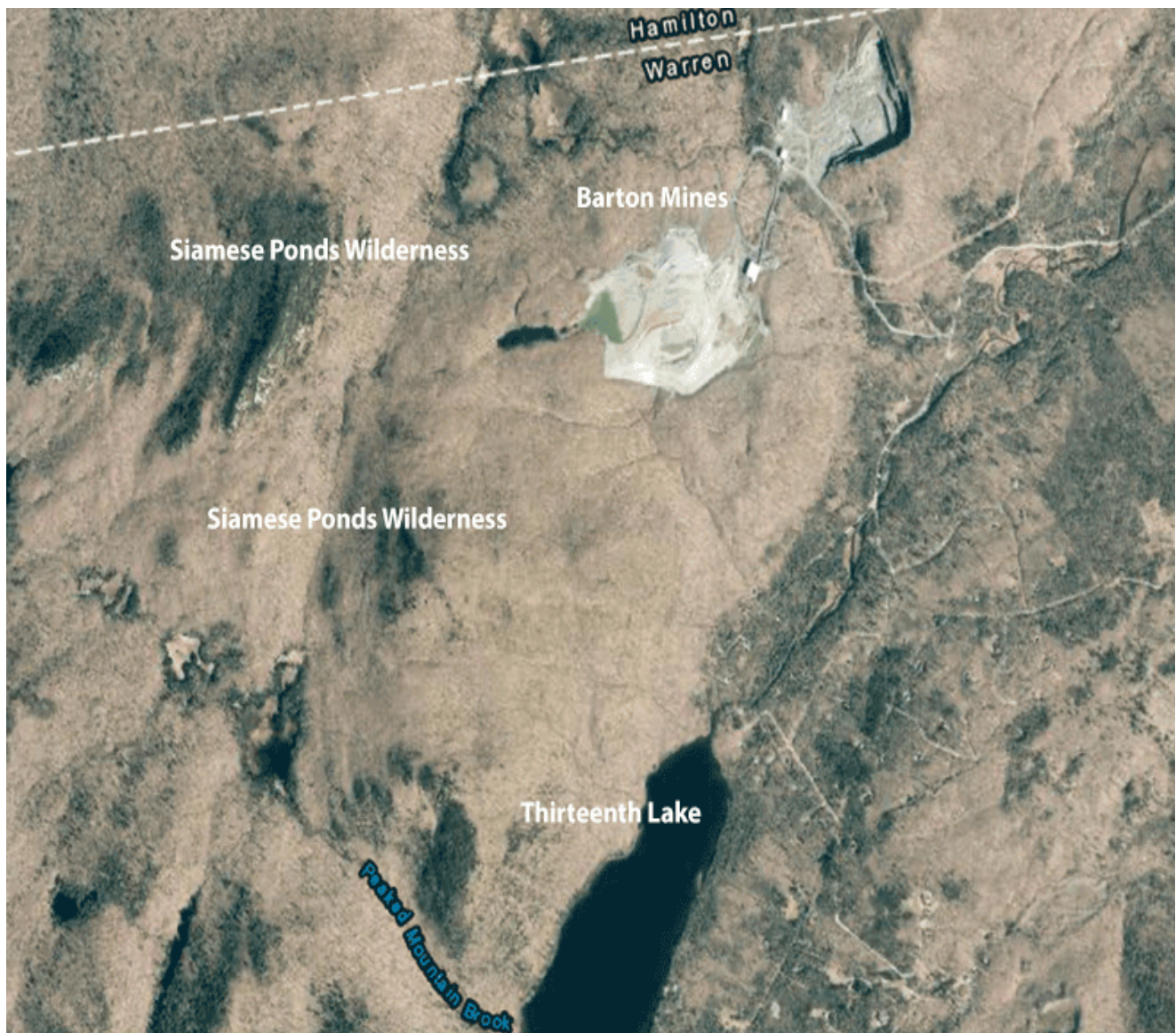


Figure 4. Aerial view showing the mine in proximity to the Siamese Ponds Wilderness Area and Thirteenth Lake. Base map from APA website.

C. The Proposed Expansion of the Waste Pile Will Have Undue Adverse Visual and Aesthetic Impacts

PROTECT has previously submitted three expert reports from Dr. Richard Smardon under cover of letters dated November 22, 2022, May 31, 2023, and January 9, 2024. Dr. Smardon is a Distinguished Service Professor Emeritus at the State University of New York College of Environmental Science and Forestry in Syracuse, New York, where he has taught for over 36 years. He is a certified environmental professional with over 40 years of experience in visual impact assessments, and has written three professional reference books on the subject.

Dr. Smardon's submissions demonstrate that the proposed expansion of the tailings waste pile will have undue adverse visual and aesthetic impacts. Specifically, the proposed expansion will result in the waste pile becoming visible or becoming increasingly visible from several sensitive publicly accessible receptors, including from Thirteenth Lake, the Hooper Mine trail and the Balm of Gilead Mountain trail in the Siamese Ponds Wilderness Area; the Moxham Mountain trail in the Vanderwhacker Mountain Wild Forest; and Gore Mountain (a popular public ski resort owned and operated by the State). The waste pile will also become increasingly visible from Thirteenth Lake Road and from Garnet Hill Lodge. Blowing dust from the waste pile and mining equipment and vehicles on the waste pile increase the adverse visual impacts of the waste pile. (See Figure 5). In addition, Barton has failed to evaluate the visual impacts of the planned removal of approximately 43,000 trees from a 67-acre portion of the mine property.



Figure 5. View of waste pile and mining equipment.

As discussed in Dr. Smardon's reports, Barton's claims that the visual impacts of the waste pile will be partially mitigated by vegetation planted on the Project site is unsupported by any detailed simulations of vegetative cover that will exist over time. Moreover, as pointed out by Dr. Smardon, Barton's conclusory claims that the RM pile and quarry face will be totally or nearly totally screened by vegetation from these important viewpoints are not supported by Barton's monitoring report on its revegetation testing program, submitted as Exhibit N to the application. In fact, the report documents poor success rates for revegetation, undermining the assumption that the visual impacts of the expanded mining operation will be mitigated by vegetative screening. Furthermore, as demonstrated by the current visibility of the tailings pile from multiple publicly accessible viewpoints, the revegetation that APA previously required, which was to commence nearly 30

years ago (in 1996), has not been successfully accomplished. Thus, there is no rational basis for assuming that vegetation will be able to grow on the tailings pile in a way that will mitigate its adverse visual impacts.

Barton also claims that visual impacts from windblown fugitive dust from the waste pile will be mitigated by annual placement of a biodegradable treatment. However, as pointed out by Dr. Smardon, the application includes no specific reference to the proven effectiveness of such a measure. In any event, this mitigation measure fails to address the windblown material coming off the conveyer belt and other machinery during windy conditions at the top working area of the waste pile.

D. Fugitive Dust From the Proposed Expansion Will Have Undue Adverse Impacts on Air Quality and on Scenic and Aesthetic Resources

As noted in Dr. Smardon's reports and documented by photographs included as exhibits to his reports, fugitive dust blowing off the waste pile and associated components such as the conveyor belt are a continuing problem during windy conditions. Barton claims that "[t]he application of DUST/BLOKR and Mincryl X50 on the residual minerals facility has shown excellent performance." Ltr. From Bowman Consulting Group Ltd. to Beth A. Magee, DEC, and Corrie Magee, APA (Aug. 30, 2024) at 3. However, the photographic evidence included in the Smardon reports proves otherwise. (See Figure 6). In addition to the adverse visual and aesthetic impacts from the fugitive dust, it has an adverse air quality impact both on-site and off-site, as depicted by the photographs showing dust from the waste pile being blown off-site. Residents near the mine have reported that they have to clean up large amounts of the dust from the mine that has accumulated on their properties.



Figure 6. Windblown dust from the waste pile.

E. The Proposed Expansion Will Have an Undue Adverse Impact on Park Resources Because Barton is Proposing No Noise Mitigation Measures

Despite the fact that numerous residents of the community adjacent to Barton’s property have complained about increased noise from mining operations, the company is proposing no additional measures to mitigate noise. Nor is Barton proposing to reduce its 24/7 milling operation to reduce noise impacts from its nighttime and weekend operations. Board-certified noise experts from Resource Systems Group (RSG) recently evaluated noise data presented in the Barton permit application. RSG concluded that the increase in projected future noise levels from the mine violates the DEC noise policy. Given this finding, and Barton’s refusal to propose any additional noise mitigation measures, the noise from the proposed expansion will have an undue adverse impact on Adirondack Park resources.

II. APA and Barton Have Failed to Comply With the Climate Act

The Climate Leadership and Community Protection Act, Ch. 106, Laws of 2019 “CLCPA” or “Climate Act”) establishes economy-wide requirements to reduce Statewide greenhouse gas (“GHG”) emissions. Article 75 of the ECL (enacted as part of the CLCPA) requires the Department of Environmental Conservation (“DEC”) to promulgate regulations ensuring that Statewide GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2050.

ECL § 75-0107(1). As required by the CLCPA, DEC promulgated regulations translating the statutorily required statewide GHG emission percentage reduction limits into specific limits based on estimated 1990 GHG emission levels. *See* 6 NYCRR Part 496. The regulations establish Statewide GHG emissions limits for 2030 and 2050, respectively, of 245.87 and 61.47 million metric tons of carbon dioxide equivalents (measured on a 20- year Global Warming Potential basis). *Id.*

Section 7(2) of the CLCPA imposes a mandatory duty on all State agencies to consider the GHG emissions associated with the issuance of a permit or approval:

In considering and issuing permits, licenses, and other administrative approvals and decisions . . . all state agencies, offices, authorities and divisions shall consider whether such decisions are inconsistent with or will interfere with the attainment of the statewide [GHG] emissions limits established in [ECL Article 75]. Where such decisions are deemed to be inconsistent with or will interfere with the attainment of the statewide [GHG] emissions limits, each agency, office, authority or division shall provide a detailed statement of justification as to why such limits/criteria may not be met, and identify alternatives or [GHG] mitigation measures to be required where such project is located.

Ch. 106, Laws of 2019, § 7(2).

The CLCPA’s mandatory GHG provisions apply to APA’s consideration of the permit application for Barton’s proposed expansion. There is no dispute that Barton’s proposed expansion will result in increased GHG emissions from on-site machinery and industrial equipment and from additional truck traffic. In addition, Barton’s proposal to clearcut 36 acres of forest has a negative effect on forest carbon storage and sequestration potential. To date, Barton has failed to submit an analysis of the Project’s direct and upstream GHG emissions and, to our knowledge, neither APA nor DEC have taken any steps to evaluate the Project’s potential GHG emissions.

APA’s third Notice of Incomplete Application (“NIPA”) stated:

The proposal appears to result in the conversion of approximately 36 acres of forest to a non-forested coertype during Phase I, and associated loss of forest carbon storage and forest carbon sequestration potential. Section 9.0 on page 56 of the narrative response document titled “Climate Change,” should be revised to account for this loss.

APA Third NIPA (Jan. 12, 2024) at 5.

Barton’s response to this comment is that “[t]he narrative has been updated to address Climate Change.” Letter from Bowman Consulting Ltd. to DEC and APA (July 15, 2024) at 19. But the Climate Change narrative in Section 9 on page 67 of the July 2024 application document does not address the loss of carbon storage and forest carbon sequestration potential associated with the clearcutting of 36 acres of forest during Phase I of the Project, as requested by APA.

Moreover, the Climate Change narrative is woefully inadequate, consisting entirely of vague conclusory, self-serving statements that are unsupported by any data or analysis. For example, Barton states that “[t]he Barton project as proposed will have a negligible impact on and will not impede New York State goals on . . . GHG emissions” but fails to provide any data concerning Barton’s current GHG emissions or how those emissions are projected to change as a result of the mine expansion. Barton Mine Permit Amendment and Modification (July 2024) at 67. Barton likewise fails to provide any data to support its claim that “[t]otal emissions from all sources for the life of the proposed project will remain essentially unchanged.” And Barton peppers its discussion with vague and qualified assertions such as that GHG emissions will be “essentially” unchanged, that the number, type and use of mobile equipment at the mine “should” remain the same, and that future (unspecified) technological advances “may” lead to a decrease in GHG emissions from mine operations. *Id.* Barton’s brief and conclusory statements about the Project’s climate change impacts are woefully insufficient for a project of this magnitude. APA cannot satisfy its CLCPA duty to consider GHG emissions by relying on the narrative in Barton’s application.

III. An Adjudicatory Hearing Must be Held on Barton’s Application

As discussed above, APA cannot, based on the current record, make the statutory findings that are a prerequisite to approval of the Barton application. APA must therefore hold an adjudicatory hearing on the application as required by the APA Act. Executive Law § 809(3)(d).

In any event, public comments submitted to APA, particularly regarding the instability of the waste pile, the visual and noise impacts of the project, the encroachment into the CEA, and the GHG emissions, “raise substantive and significant issues relating to any findings or determinations the agency is required to make . . . including the reasonable likelihood that the project will be disapproved or can be approved only with major modifications because the project as proposed may not meet statutory or regulatory criteria or standards.” *Id.* Furthermore, “the general level of public interest” in the Project, as demonstrated by the hundreds of public comments submitted to APA, warrants an adjudicatory hearing on the application. *Id.*

In addition to meeting the statutory criteria in the APA Act for an adjudicatory hearing, the facts concerning the Barton application plainly satisfy the criteria for an adjudicatory hearing set forth in APA’s regulations. The proposed mine expansion is a major permit application that is large and complex; there is a high degree of public interest in the proposed project; expert reports have been submitted disputing the analyses and conclusions in Barton’s application concerning the stability of the tailings waste pile, the visual and aesthetic impacts of the proposed expansion, and the noise and dust impacts from mining operations, thus raising significant issues relating to the criteria for approval and the possibility that the project can be approved only with major modifications or significant conditions; and the testimony of these experts at a hearing would be of assistance to APA in its review. *See* 9 NYCRR § 580.2(a). An adjudicatory hearing is also necessary given the extremely truncated public comment period (15 days) provided by APA for a project of this magnitude, scope and complexity, which has severely limited public involvement. *See id.* § 580.2(a)(6) (requiring consideration of the extent of public involvement by other means).

Conclusion

On behalf of the Board of Directors of Protect the Adirondacks, please let me express our gratitude for the opportunity to submit these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Amato", with a stylized flourish at the end.

Christopher Amato
Conservation Director and Counsel

enc.

cc: Beth Magee
Deputy Regional Permit Administrator
NYSDEC – Region 5
232 Golf Course Road
Warrensburg, New York 12885

EXHIBIT A



Sterling Environmental Engineering, P.C.

October 9, 2024

Corrie Magee
Adirondack Park Agency
PO Box 99
Ray Brook, New York 12977

Subject: Barton Mines, LLC
Ruby Mountain Garnet Mine
Major Permit Modification
NYSDEC Mine Permit #5-5230-00002/00002
APA Permit #P79-140, P79-356, P87-39, P87-39A, P87-39B, P88-393, P88-393A
STERLING File #2024-01

Dear Ms. Magee:

Sterling Environmental Engineering, P.C. (STERLING) has been retained by Protect the Adirondacks to evaluate potential environmental impacts associated with the major permit application by Barton Mines, LLC ("Barton") to expand its Ruby Mountain Garnet Mine located in the Town of Johnsbury, Warren County (the "mine"). The Adirondack Park Agency (APA) issued a Notice of Complete Application on September 18, 2024.

As described below, it is STERLING's professional engineering opinion that the application contains insufficient information to support a determination that the Residual Minerals Storage Facility (hereinafter referred to as the "RM Facility") will remain stable and will not fail over the life of the proposed mine expansion. Specifically, the August 2024 Geotechnical Report lacks the data necessary to support a conclusion that the RM Facility will be stable over the life of the expansion, and the report fails to adequately analyze and discuss the consequences and potential impacts of a slope failure.

The Geotechnical Report concludes that the slope stability analysis meets industry standard Factors of Safety (FOS). However, the following critical data gaps demonstrate that the report's slope stability analysis is incomplete and that its conclusion that it meets the industry FOS lacks sound engineering support:

1. The Geotechnical Report relies heavily on the October 30, 2023 report included in Appendix A prepared by Knight Piesold Consulting. The October 2023 report is a feasibility assessment that describes an "observational approach" for future construction that requires the continuous involvement by a qualified geotechnical engineer to confirm assumptions, provide guidance on construction methods and investigation programs, and to initiate re-designs if warranted based on observations. There are two problems with this approach for the mine expansion. First, an observational approach is not appropriate for the long-term construction of the RM Facility where one of the observations could be a large slope failure. Second, while many construction projects operate under a "design-build" approach, such an approach includes specific performance requirements and the roles and responsibilities of involved personnel are clearly defined. In contrast, the observational approach described in the October 2023 report and carried forward in the proposed monitoring plan in the August 2024 report is ambiguous, lacks specific performance requirements, fails to describe the roles and responsibilities of involved personnel, and is therefore insufficient to ensure that long-term stability of the expanded RM Facility will be achieved.

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It is standard engineering practice when adopting a design-build approach to include long-term design and construction details in a comprehensive document, such as a Basis of Design Report, Operations and Maintenance Manual, or a Construction Quality Assurance Plan. No such report is included in the application. This omission leaves unanswered the important questions regarding how the ongoing engineering and construction oversight necessary for a project of this magnitude will be implemented. Although the October 2023 report identifies “geotechnical risks” and recommends construction practices to improve geotechnical performance of the expansion, these technical elements are not fully assessed and the procedures to execute and monitor the construction recommendations are not identified.

2. The October 2023 report describes specific stability scenarios that were not assessed, such as earthquake loading and rapidly rising groundwater conditions. These scenarios must be evaluated to fully understand the long-term stability of the RM Facility. However, the 2024 Geotechnical Report makes no mention of these previously identified risk scenarios and does not state whether they were evaluated or if they will be assessed at any time during the future observational approach. A comprehensive design-build document would normally describe when specific scenarios will be assessed and describe all required field observations, sampling programs, data collection, action levels, and notifications.
3. The Geotechnical Report concludes that the RM Facility is expected to be stable over the life of the expansion because the assessed FOS meets or exceeds the industry standard FOS of 1.5 for drained conditions and 1.3 for undrained conditions. However, this statement lacks context because it does not include an assessment of the variability of design factors or an analysis of the consequence of a slope failure. The Geotechnical Report includes large deep seated failure scenarios that barely achieve the minimum FOS of 1.3. The failure surfaces cross through several material layers that are assigned specific material properties that are based on a limited field investigation and testing program. Good engineering practice is to perform a sensitivity analysis on the model input parameters, such as material properties or groundwater elevation, to assess the impact of a change in those parameters on the FOS. This is particularly important given the size of the failure surfaces at the RM Facility and the closeness of the scenarios to the minimum FOS. Slope stability cross sections C and F have failure surfaces spanning approximately 800 to 1,000 feet and crossing through the lower process water ponds at SPDES Outfall 002. If a failure of this magnitude occurred, mine tailing and process water would be released into the unnamed tributary that flows into Thirteenth Brook.
4. For all practical purposes, the RM Facility is a landfill. In New York, the NYSDEC has specific stability analysis requirements for landfills, including a requirement to perform a seismic stability analysis for any facility located in a seismic impact zone. The RM Facility is located in a seismic impact zone as indicated on the United States Geological Survey (USGS) Seismic Hazard Map of New York (2014). A seismic analysis is critical to the assessment of potential adverse impacts based on the size and complexity of the RM Facility and the consequences of a failure.

As noted above, the application documents lack necessary information to support a conclusion that the RM Facility will be stable over the life of the proposed expansion.

We appreciate your consideration of these comments.

Very truly yours,
STERLING ENVIRONMENTAL ENGINEERING, P.C.

A handwritten signature in black ink, appearing to read 'Andrew M. Millspaugh'.

Andrew M. Millspaugh, P.E.
Vice President

Andrew.Millspaugh@sterlingenvironmental.com

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