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April 9, 2024
Frances Knickmyer
NYSDEC Region 8 Headquarters
6274 E Avon-Lima Rd
Avon, NY 14414

Re: Draft Environmental Impact Statement for the "It's Greener Now LLC. Padua Ridge Gravel Mine"

Dear Frances Knickmyer,

On behalf of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), I am providing these comments on the Padua Ridge Gravel Mine Draft Environmental Impact Statement (DEIS).

State Parks acknowledges that this proposal, to expand the Life-of-Mine Affected Area, has been in progress and under review for over 15 years and that some original proposed elements have been removed, reduced, or modified during that time resulting in the current proposal.

Watkins Glen State Park is located directly south and southwest of the Padua Ridge Gravel Mine property. This State Park is the most famous and most visited of the Finger Lakes State Parks seeing over 1.2 million visitors in 2023. Glen Creek, a classification B stream, runs through the park through the Glen Creek gorge. This deep gorge contains a walking trail for the visiting public with multiple waterfalls and a unique microclimate. The gorge, according to the New York Natural Heritage Program (NY NHP 2024a), has a 'shale cliff and talus natural community along its entire length and an extensive calcareous shoreline outcrop that lines the creek bed.' Both natural communities are designated as significant natural communities by the Natural Heritage Program. Additionally, there are 'very small patches of shrub swamp and shallow emergent marsh that occur along slow, flat areas of the stream where sediments have been deposited over a long period of time.' A Special Concern species of dragonfly is also known to inhabit the gorge. This dragonfly relies on spring seeps within the gorge for larval habitat and completing its life cycle. As noted in the Natural Heritage Program's Conservation Guide for this species, seepage areas along gorges are 'the key larval habitat for this species, any activities that alter the quality or quantity of groundwater seepage in an occupied area would pose a threat to' the dragonfly species (NY NHP 2024b). There is also a known occurrence of a federally threatened/state endangered plant species within the gorge.

The above-mentioned resources could be significantly impacted by the proposed mine expansion. OPRHP submitted a letter to NYSDEC dated July 11, 2008, which included multiple requests for additional information and data collection, which were then included in the Final Scoping Document. Some of these items were not addressed, or not addressed sufficiently, in the current DEIS. The following comments and requests for additional information are offered to help OPRHP ascertain the magnitude and severity of potential impacts from the proposed project on Watkins Glen State Park and its associated resources.

DEIS Section 1.1 Project Description

Page 1 of the DEIS states: *While the overall acreage of the mine will increase over the life of the project, the total disturbed area (active mining excavation area, previously mined unreclaimed areas, and processing areas) will be minimized by employing concurrent reclamation practices and by limiting stripping activities in advance of mining.*

- 1) Comment:** The DEIS does not estimate the total disturbed area under the proposed expansion. An estimate of the disturbance extent is key to understanding how the Proposed Action differs from disturbing the entire proposed expansion area at once. The DEIS also does not clearly indicate the location(s) of the proposed disturbed area and how the location(s) may change through time. These are fundamental components of the project description that are missing and therefore limit the understanding and assessment of the Proposed Action.

While the extent or location(s) of active mining may vary, the average active mining extent, average extent of previously mined unreclaimed areas, average extent of processing areas, along with a conceptual sequence for where these locations would likely be through time would greatly benefit the interpretation of the Proposed Action. OPRHP requests the inclusion of this information in the DEIS to complete the project description and so OPRHP can fully assess potential impacts on parkland.

- 2) Comment:** Please address what is occurring in the area west of NY Route 409 (NY-409) that has been cleared of vegetation. It is difficult to determine if this area is being actively mined, or what the history of mining is in this area, and if this area is part of the current project scope and project permitting.

Page 2 of the DEIS states: *Mined material will continue to be processed with screening, washing, and crushing equipment.*

- 3) Comment:** The DEIS does not indicate if washing the excavated sand and gravel material occurs using water or with chemical products, and how the washing waste material is contained and managed in a way that does not pose a risk to Watkins Glen State Park. Please clarify.

DEIS Section 4.1.2 Potential Impacts – Buried Gorges

Page 17 of the DEIS states: *As the seasonal high groundwater table remains well above the bedrock interface, and the water table will not be intercepted by mining activities, there is no potential to impact the geology or hydrogeology of any potential buried paleo gorges.*

- 4) Comment:** It is not likely an accurate statement to say that excavation above the water table will not affect the hydrogeology of the area. With removal of overburden sand and gravel, up to 70 feet thick in some areas as shown on the cross-sections, there may likely be increased water runoff that could have the potential to affect areas nearby. Provide references or studies that support the statement that mining above the groundwater table will not influence the hydrogeology of the area, including the potential buried gorges as claimed above.

5) Comment: The drilling performed as part of the boring and monitoring well installations, and the DEIS, do not confirm or deny the existence of the purported east-west striking buried gorges discovered by gravity traverse (Upright, 1992). Determining whether or not the buried gorges are present should be considered, because, as stated in the 2008 OPRHP letter to NYSDEC, they may have an important influence on the hydrology of the area, but have not been characterized (T. Lyons, 2008). The gorges, that rest on top of the bedrock, are filled with unconsolidated sediment. These gorges, if present, likely collect and convey groundwater along their length (Upright, 1992), meaning they could potentially carry contaminants, such as road salt or chemicals from hydraulic spills. A passive seismic or seismic refraction study could be conducted to determine depth to bedrock, especially in the area of the southern channel, since the DEIS did not investigate in that area. Additionally, the material in the purported channels is not yet identified. For example, the channels could contain sand and gravel, or less permeable lacustrine silt clay. The southern channel appears to be lower in elevation on the west side and could contain silt and clay, making it less permeable and less likely to affect any potential groundwater migration toward Glen Creek. But this is not definitive. To greater clarify the regional geology and hydrogeology and potential for impact, conducting a seismic refraction study in the areas of the purported channels will determine depth to bedrock, and installing additional borings will help determine the buried gorge materials. OPRHP requires coordination for any portion of the refraction study conducted within Watkins Glen State Park.

6) Comment: The Final Scoping Document (pages 3-4) requested a graphical representation, both in plan and profile view, of the location and extent of the buried gorges in relationship to the mine and WGSP. The additional delineation completed during installation of the five 2017 borings/wells did not define the purported channels. Please see comment above regarding a passive seismic or seismic refraction study and additional boring installations to confirm/deny the existence of buried channels and their materials, and, if applicable, provide the graphical representation as noted in the Final Scoping Document.

DEIS Section 4.2.3 Surface Water Resources - Mitigation and Stormwater Management

Page 6 of the DEIS Appendix G Stormwater Pollution Prevention Plan (SWPPP) Drainage Report states the drainage analysis was modeled using: *existing condition (10-year and 25-year storm events), the pre-remediation condition (10-year and 25-year storm events), and the post-remediation condition (10-year storm event).*

Page 6 of the DEIS Appendix G Stormwater Pollution Prevention Plan (SWPPP) Drainage Report states: *To the extent that runoff does accumulate, it can be retained in these areas with grading or soil berms if necessary.*

Plate 1 of 4: Existing Condition Drainage Areas of the Drainage Report in the DEIS Appendix G Stormwater Pollution Prevention Plan (SWPPP) indicates there will be an extensive 'Future Diversion Berm' to be located along the southwest property line of the Padua Ridge Gravel Mine property adjacent to Watkins Glen State Park.

Plate 2 of 4: Pre- and Post-Reclamation Drainage Areas of the Drainage Report in the DEIS Appendix G Stormwater Pollution Prevention Plan (SWPPP) indicates there will be an extensive 'Berm' to be located along the southwest property line of the Padua Ridge Gravel Mine property adjacent to Watkins Glen State Park.

7) Comment: To adequately support the DEIS assessment that run-off will not accumulate or can be retained in the area using a berm (and therefore not divert water into Watkins Glen State Park), the following items need to be addressed:

- a) The analysis for peak flows and capacity to manage stormwater is inadequate considering climate change and the expected frequency of more severe storms. Given the low intensity of the modeled storm events, if a future diversion berm is installed along the entirety of the southwestern mine boundary with no other storm mitigation to contain or direct flow, there is a risk that higher intensity storm events would be diverted into Watkins Glen State Park and the Glen Creek gorge. The analysis should include multiple successive 100-year storm events and a 500-year storm event. This comment was also provided by OPRHP in the Draft Scoping Outline letter to NYSDEC dated July 11, 2008. This information is needed to appropriately determine potential impacts to WGSP from stormwater run-off and proper mitigation measures, as required.
- b) The dimensions and configuration of the proposed future diversion berm/berms are needed to adequately support the assessment. If the berm is a solid structure that spans the entirety of the southwestern mine boundary with no additional methods to direct/retain water at the southwestern edge of the berm, then there appears to be a substantial risk for water diversion into Watkins Glen State Park.
- c) It is unclear if the future diversion berm/berms for stormwater mitigation would be in addition to the proposed berm for noise impact mitigation. If these berms are co-located in some areas along the southwestern boundary with Watkins Glen State Park, this could alter stormwater dynamics in the immediate vicinity and lead to the diversion of water onto the neighboring property. All proposed berms should be explicitly modeled in the drainage report to evaluate their effect on storm water run-off.

DEIS Section 4.3.1 Existing Environmental Setting - Watkins Glen State Park Seeps and Microclimates

Page 17 of the DEIS states: *Another way to think of this dynamic is that bedrock-based gorge seepage faces are significantly lower in elevation than the till-associated gorge rim springs. The groundwater supplying the gorge rim springs therefore must be unavailable to recharge the bedrock groundwater regime due to the low permeability of either the intervening till and clay deposits, or of the bedrock formation itself. The conclusion best supported by the gorge seep evidence, as well as site hydrogeologic evidence, is that the unconsolidated deposits (sand and gravel) subject to mining are hydrogeologically isolated from the underlying bedrock.*

8) Comment: OPRHP appreciates the June 2017 reconnaissance of the WGSP gorge seeps along the gorge trails, and the May 2019 photo-log. The seeps are very important as they are a life sustaining source for significant natural communities and rare, threatened, and endangered species. To confirm the DEIS conclusion that the two different seep types (lower bedrock and upper rim) are not hydrogeologically connected, specific conductance and temperature measurements should be collected at the seep locations in the Gorge. The water moving through the different materials, and then presenting as seeps or springs in the Gorge, will have different specific conductance and temperatures as they will have different travel times through these materials, and could confirm or disprove the DEIS theory. The specific conductance and

temperature measurements collected at the seeps/springs could be compared to measurements collected directly from wells located in the mine. If the measurements are significantly different, it may support or refute the hypothesis that the mine water is not hydrogeologically connected to the seeps/spring presenting in the Glen Creek Gorge. OPRHP requests coordination for the identification and sampling of the seeps in Watkins Glen State Park. NYS OPRHP has a drinking water well at the upper park entrance that we may choose to monitor for specific conductance, temperature and certain geochemical parameters.

DEIS Section 4.3.2 Potential Impacts

Groundwater

Page 23 of the DEIS: *There will be no significant potential impacts to groundwater resulting from the proposed expansion of the existing excavation. This lack of potential impact is applicable to both high- and low-water conditions, as the water table itself will not be encountered or impacted by mining activity.*

The 2017 Groundwater Monitoring Well Data (XLS), available: <https://jmt.com/padua-ridge-DEIS/>
DEIS Table 1 Groundwater Well Data Summary

9) Comment: The Final Scoping Document indicates that at least one complete annual cycle of water-level data is needed to evaluate seasonal fluctuations in the water table. The DEIS provides groundwater elevation data collected for ten wells from May through September 2017 as shown in the Groundwater Monitoring Well Data and associated hydrographs. These groundwater elevations are what will determine the depth of mining excavation as the DEIS states that mining will occur only to 5' above the groundwater surface. As noted in OPRHP's 2008 comment letter, the highest water levels usually occur in the spring of the year, so May through September data may not necessarily capture higher groundwater elevations in early spring. Provide references or studies that support the period of monitoring is sufficient to characterize the high seasonal water table at the Padua Ridge Gravel Mine. Otherwise, IGN must conduct at least one complete annual cycle of water-level data to determine the seasonal high water table, which is vital to determining the depth of excavation.

Page 24 of the DEIS: *The proposed expansion has no potential to impact the quality or quantity of groundwater available to Watkins Glen State Park or to surrounding groundwater users. Furthermore, because the proposed expansion has no potential to impact these resources, there will be no impact to the micro-climate experienced by gorge visitors, even during drought conditions.*

10) Comment: Removal of overburden thickness in the mine has the potential to affect movement of surface water and groundwater both within the mine and outside the mine property lines. For example, properties to the east of the mine could have potential issues with water entry and should be considered (See **Comment 4**).

Final Scoping Document (page 5-6) – Water Resources - Groundwater

The text states: *Information available on the existing glacial and bedrock stratigraphy and water levels within these units will need to be supplemented by additional data (e.g. new borings/well) from south and east of the common boundary between the mining area and the Watkins Glen State Park.*

The text states: *Hydrogeologic information from east and south of the IGN property should be compared to hydrogeologic information from the mining area to determine the direction of groundwater flow in the deltaic deposits. In addition to the contour maps showing both the elevations of water tables in the deltaic deposits and bedrock, geologic section profiles should be provided which shows water levels in both units and also within the mining site and south and east of the mining site.*

- 11) Comment:** Five new wells were added in 2017, but they were located within the mine boundary. A regional study does not appear to have been completed as part of this DEIS. The NYSDEC has an info locator that lists all the wells drilled since permitting began at this mine and could be a valuable tool in this study, required by the Final Scoping Document.

DEIS Section 4.3.3 Proposed Mitigation Measures

Page 24 of the DEIS: *However, given the availability of established groundwater monitoring locations, and consistent with the Scoping Document, IGN will continue to monitor on-site groundwater wells for the duration of mining.*

- 12) Comment:** OPRHP acknowledges the effort to monitor the IGN on-site wells on a quarterly basis for the Life Of Mine Affected Area. The DEIS is missing details such as: when the monitoring will start or if the monitoring has already started; where the data is available for public review (i.e. where will the data be publicly presented to ensure that the depth of excavation will be limited to 5' above the groundwater surface); what the monitoring schedule is and the monitoring parameters are; and which wells are part of the monitoring program. This information is important to track changes in the groundwater level for responsive mining practices that avoid interactions with the groundwater table. Avoiding excavation below the groundwater table is a fundamental premise of the proposed action that must be supported and continuously verified to ensure the hydrology of Watkins Glen State Park is not significantly impacted now, or at any point in the future of the proposed action. See **Comment 9** related to the seasonal groundwater table.

DEIS Section 4.4.2 Ecological Resources – Potential Impact

Page 24 of the DEIS: *As discussed in Section 4.3, the proposed expansion has no potential to impact groundwater quality or quantity available to gorge communities.*

- 13) Comment:** Responses to the other comments provided above would help to clarify the potential impacts to the hydrology of the gorge. If the hydrology of the gorge is impacted by mining, then impacts to significant natural communities and rare, threatened, and endangered species may occur within the gorge. At present it is difficult to support the claim that there is no potential to impact these resources, given the clarification of the local hydrology that is needed.

DEIS Section 4.6.2 Noise – Potential Impacts

Page 33 of the DEIS: *Planned screening berms to the southwest and north, and the existing screening berm to the northwest, in combination with intervening topography, significantly limit sound propagation from the mine site.*

Page 6 of the Noise Projection Analysis of the DEIS: *In order to limit potential noise and visual impacts to Receptors 1 and 3, additional screening berms will be located at the southwest and north margins of the site. These new screening berms are illustrated on Figure 4 and were modeled in SoundPLAN to determine the mitigation value. As evidenced by the data in Table 2 and the depiction on Figure 4, the berms significantly reduce the potential for impacts at Receptor 1 and 3, even under worst-case scenarios.*

- 14) Comment:** OPRHP acknowledges the DEIS Appendix D Noise Projection Analysis and the proposed vegetated berm along the southwest boundary of the IGN property adjacent to Watkins Glen State Park to mitigate noise impacts. Any revegetation of the berm should use only native plant species, to minimize the potential for invasive species seed distribution to adjoining properties. See **Comment 27** in Modification Application for Permit to MLUP, 3.6 Revegetation below for additional information regarding plant species.

DEIS Section 4.7.2 Cultural Resources – Potential Impacts

Page 35 of the DEIS: *It is not anticipated that the expansion will adversely impact the eligibility of the park or have the potential to impact the Park’s cultural characteristics which qualify it for eligibility.*

- 15) Comment:** Watkins Glen State Park is eligible for listing on the State and National Registers of Historic Places. OPRHP acknowledges the lengthy consultation process between IGN and OPRHP’s Division for Historic Preservation (DHP) regarding potential impacts to historic and cultural resources at WGSP and the surrounding area. Given the December 10, 2021, letter from DHP to the Applicant’s consultant, JMT, indicating the opinion that the project will have no adverse impact on historic resources and no additional concerns have been identified, OPRHP has no further comment on this item.

DEIS Tables, Figures, and Appendices

- 16) General Comment:** Please change Seneca Spring to Senega Spring in all locations in the DEIS.

DEIS Table 1 Groundwater Well Data Summary

- 17) Comment:** Five borings/monitoring wells were installed in 2017. Please provide a Table in the body of the DEIS showing wellhead elevations and screened intervals of these wells, and if possible, of all the wells installed on the IGN property to clarify the data being summarized in DEIS Table 1 Groundwater Well Data Summary and better support the inferences regarding the water table elevation (See **Comment 9**).

DEIS Sheets –Geologic Cross-sections Plate 5 of 9

- 18) Comment:** The overburden groundwater contour lines on Plate 5 should be dashed the same as the bedrock groundwater contour lines are on Plate 6, due to the very limited number of data

points. Also, the lines should not extend beyond the IGN property line as a regional study was not completed as part of this DEIS and the groundwater contours are interpolated.

DEIS Sheets –Geologic Cross-sections Plate 7 of 9

- 19) Comment:** ‘Glacial Till’ and ‘Glacilacustrine Clay & Silt’ cannot be differentiated in the figure or in the figure legend. Please update the color coding in the legend blocks.
- 20) Comment:** Well MW-2-17 appears to be placed incorrectly on cross-section C-C' and should be removed. It appears accurately located on the A-A' cross-section toward the A' end.
- 21) Comment:** Please lighten the color of the background red graph as it is hard to read the cross-section.
- 22) Comment:** On the C-C' cross-section there is a thin black line at the 872 elevation on the north end. What does that line indicate?
- 23) Comment:** Please correct the legend on the cross-sections to include the symbol for top of the groundwater table. Please consider dashing the contact lines between geologic units on the cross-section. For example, on cross-section A-A', MW-2-17 shows thick sand and gravel but the geologic log does not indicate a confirmed till layer at 134" below ground surface (if that is what the olive green color indicates), so that should show as a dashed line.
- 24) Comment:** Cross-section C-C' shows the location of MW-1-17, which is an important well as it is located at a local groundwater divide. Water to the south will flow toward the creek, and water to the north will flow toward the mine. This well should remain and be placed in the monitoring program, yet the cross-section C-C' seems to indicate that the mine will be excavating this well as part of the expansion. Please comment on or confirm that this well will remain, and excavation will occur only to the north of this well location.

DEIS Appendix D Noise Projection Analysis Figures 2 through 5

- 25) Comment:** The figures show existing and proposed operations locations (Scenarios 1 and 2) indicating various options for where mining equipment (e.g., loader, screen, crusher) will be placed specifically for the purposes of the Noise Projection Analysis as worst-case-scenarios. OPRHP requests a conceptual figure or figures showing the expected active mining location(s) and reclamation areas over time to fully understand the Proposed Action (See **Comment 1**).

Traffic and Transportation - DEIS Appendix F Mined Land Use Plan

Page 7 of the Mined Land Use Plan states: *Truck traffic to and from the site will not be increased by the proposed expansion, as the increase in affected area is a continuation of existing mine operations. The amount of material shipped from the site is controlled by market demand and specific contracts. Continued mining at the site will not create an increase in market demand but will only increase the sand and gravel reserves.*

26) Comment: The conclusion that there will be no significant increase in truck traffic on and off the site from the proposed action is not well supported. The DEIS contains no analysis of how truck traffic would be affected by the proposed expansion. There is also no quantification of the current truck traffic volumes for comparison. Part 1 of the Full Environmental Assessment Form, D. Project Details, D2. Project Operations indicates 3,500,000 cubic yards of material would be removed over 20 years. Attempts by the community to analyze the potential traffic level based on these estimates suggest traffic levels may increase and be substantively worsened (Mantius 2024).

Traffic could significantly increase along NY-409, which serves as the access route to the northern entry to Watkins Glen State Park, as well as Station Road, which is a continuation westward of NY-409 used to access the Hidden Valley Group Camp at the west end of WGSP. The NYS DEC Full Environmental Assessment Form (FEAF) Workbook indicates a curved road (such as NY-409) has lesser capacity compared to a straight road. Additionally, increasing the proportion of traffic turning left on a shared lane may reduce capacity (e.g., traffic traveling south/southwest and turning left into Padua Ridge Gravel Mine and that traveling west/southwest going straight through to Watkins Glen State Park). It is difficult to determine the level of service (LOS) on NY-409 and if it may be substantively worsened. A traffic impact analysis considering current and future conditions should be completed.

Modification Application for Permit to MLUP, 3.6 Revegetation

Page 14 of the Mined Land Use Plan: Seeding Mixture Table

27) Comment: The proposed seeding mixture includes crown vetch (*Securigera varia*) and tall fescue (*Schedonorus arundinaceus*) both of which are identified as Type 4 invasive species by the Finger Lakes Partnership for Regional Invasive Species Management (PRISM). These are not recommended for use in an effort to help minimize the potential for invasive species seed distribution to adjoining properties. Please use native species in consultation with NYSDEC as indicated in the DEIS. The New York Flora Atlas (<https://newyork.plantatlas.usf.edu/>) is an excellent resource to confirm native plant species. Also, in addition to grass species, please consider adding native shrubs and trees to reclaimed areas to enhance stability, habitat structure, and biodiversity across the landscape.

Thank you for the opportunity to comment on the Padua Ridge Gravel Mine DEIS.

Sincerely,

Fred Bonn
Regional Director

References:

Lyons, T. (2008, July 11). Letter from Thomas Lyons (OPRHP) to Peter Lent (NYSDEC). Draft Scoping Outline Padua Gravel Pit.

Mantius, P. (2024, February 21). DEC doesn't require truck traffic analysis for gravel mine expansion despite dangerous curve. FingerLakes1.com. <https://www.fingerlakes1.com/2024/02/20/dec-doesnt-require-truck-traffic-analysis-for-gravel-mine-expansion-despite-dangerous-curve/>

[NY NHP] New York Natural Heritage Program. 2024a. Element Occurrence Dataset. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany NY. Accessed 3/2024.

[NY NHP] New York Natural Heritage Program. 2024b. Online Conservation Guide for *Tachopteryx thoreyi*. Available from: <https://guides.nynhp.org/gray-petaltail/> . Accessed March 25, 2024.

Upright, J. A. (1992, May). Hydrological Effects of a Buried Gorge, Watkins Glen, New York. Report for Masters of Engineering.