

Public Comment for Draft Environmental Impact Statement Cortlandville Sand and Gravel Mine Permit Modification NYSDEC Permit No. 7-1122-00043/00008

To whom it may concern,

I am concerned that the dEIS fails to adequately mitigate risk to the marl pond's unique flora and fauna.

First the applicant fails to accurately identify the number of marl ponds potentially impacted by the mine expansion. While 3 marl ponds have previously been inventoried as significant ecological communities simple investigation shows that at least 4 additional ponds on land owned by the town of Cortlandville and Lime Hollow Nature Center are of this rare ecological community. I have included a map below to show the location of these additional marl ponds (Figure 1). For convenience I have arbitrarily numbered these ponds 1-7 (1 being in the north, 7 being in the south) and will refer to these numbers throughout the rest of this comment. This information has been provided to Lime Hollow Nature Center as well as information of how to get these sites recognized as element occurrences of this rare community.

On July 27 a group of 4 professional and amateur botanists conducted a brief floristic survey of these sites and observed similar species and hydrologic conditions to those observed in pond 4 and included in the NYS significant ecological communities. We recorded every species growing below the bathtub ring high water mark, and listed them by pond so as to record a list of each pond individually. This species list is attached below. This ground check not only showed evidence of additional marl ponds that could be affected by proposed expansion but also highlighted deficiencies of the vegetation surveys conducted for the dEIS. While none of our surveyed ponds overlap with ponds surveyed in the dEIS the lists provided should have a comparable species list to marl ponds that were investigated. We detected 37 species in our sampling effort compared to 13 detected by the vegetation survey in this dEIS. Our sampling effort focused on areas likely to be affected by changes to hydroperiod, specifically places where fluctuating water table creates a habitat that is seasonally inundated. The presence of significant woody cover indicates that the vegetation surveys were conducted near to or above the high water line, or detected plants that were rooted above the high water line. It is unclear from information provided when these surveys were conducted, but to accurately identify baseline surveys should be conducted in areas that are seasonally exposed and where ecology is dominated by fluctuating water levels. Additionally the vegetation survey fails to bring some detected taxa to species even when protected species of that genus are known to occur in marl ponds elsewhere in the state, notably *Potamogeton* and *Eleocharis*. Our survey did identify a *Potamogeton* as *Potamogeton gramineus*, but it unknown there are multiple species present in the ponds, or what species was detected in the survey. Our survey was too early to make an accurate determination on *Eleocharis* species, although multiple species are suspected. The surveyor also allegedly detected *Rubus moluccanus* a plant not documented in the flora of New York (Werier et al) or the flora of New England (Haines) and is very likely the result of a misidentification of

another *Rubus* species. This vegetation survey is inadequate to serve as the baseline which the dEIS purports it to be.

There is no acknowledgment of the risk to the marl ponds by the potential to introduce exotic species from the mine expansion, either during the mine operation or during remediation. Exotic species can have detrimental impacts on these sensitive ecosystems, and are already affecting some ponds in this chain.

Finally, there is no plan for what to do if mining causes something to deviate from a baseline established here. Permanent and lasting impacts could occur from one season with radically altered hydrology, or over a longer time if hydrology changes less significantly. This sets up the eventuality where changes are detected, but remedies are delayed to the point where impacts are already permanent by the time those remedies are implemented. A plan should be clearly laid out in this document how the operator of the mine plans to act if significant alterations to hydrology, amphibian breeding, or vegetation are observed.

For these reasons the dEIS fails to address potential impacts to marl ponds:

- Not identifying 4 of 7 potentially impacted marl ponds
- Not adequately showing a baseline for marl pond vegetation
- Not considering the risks presented by exotic species
- And not having a mitigation plan if significant deviations from identified baselines are documented.

Thank you for accepting my comment

David DuBois

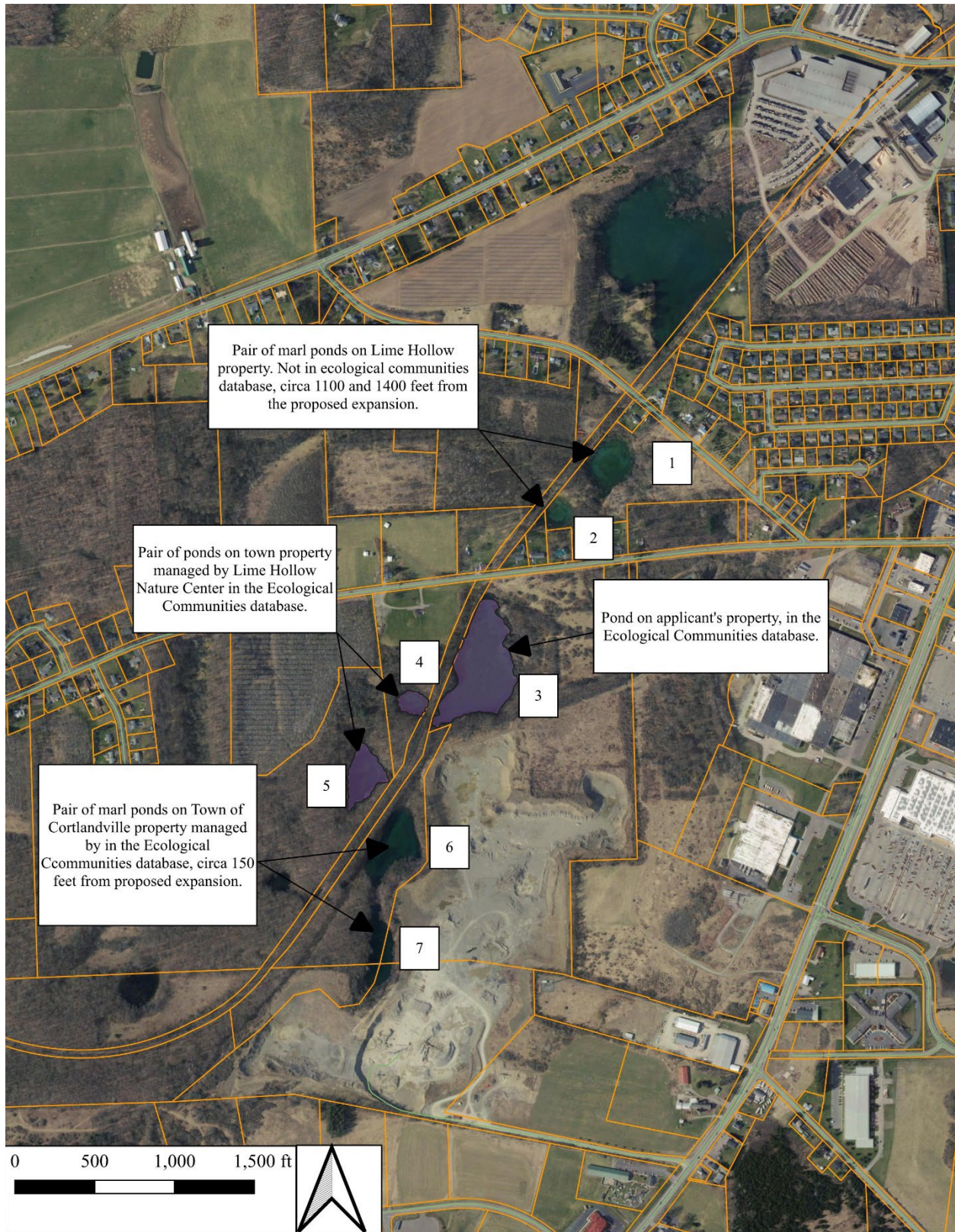


Figure 1: Map of marl ponds annotated to indicate which ones had not been previously included in the database and were not addressed at all in this dEIS

Table 1: Plant list of the marl ponds 07/27/2024 broken down by what pond the species were observed in.

Family	Scientific_Name	Common_Name	CoC	nwpl_ncne	Native	1	2	5	6	7
Apocynaceae	Asclepias incarnata ssp. incarnata	western swamp milkweed	4	OBL	Y	x	x	x	x	x
Cyperaceae	Carex retrorsa	backward-fruited sedge	6	OBL	Y	x		x	x	x
Cyperaceae	Carex viridula ssp. viridula	green sedge	5	OBL	Y		x		x	
Characeae	Chara sp.	muskgrass				x	x	x	x	x
Cornaceae	Cornus amomum ssp. amomum	silky dogwood	6	FACW	Y	x				
Cornaceae	Cornus sericea	red-osier dogwood	6	FACW	Y	x		x		
Poaceae	Deschampsia cespitosa ssp. cespitosa	tufted hair grass			Y			x	x	
Cyperaceae	Eleocharis sp.	needle spike rush	4	OBL		x	x	x	x	x
Equisetaceae	Equisetum arvense	field horsetail, common horsetail	2	FAC	Y	x				
Asteraceae	Eutrochium maculatum var. maculatum	spotted Joe Pye weed	4	OBL	Y	x	x	x	x	x
Poaceae	Glyceria striata	fowl manna grass	6	OBL	Y			x		
Lamiaceae	Mentha canadensis	American wild mint	4	FACW	Y	x			x	x
Hydrocharitaceae	Najas flexilis	common water nymph, common naiad	3	OBL	Y				x	
Polygonaceae	Persicaria amphibia ssp. laevimarginata	American water smartweed	6	OBL	Y	x	x	x	x	x
Poaceae	Phalaris arundinacea	reed canary grass		FACW	N	x	x	x	x	x

Potamogetonaceae	Potamogeton gramineus	grass-leaved pondweed	7	OBL	Y				x	
Rosaceae	Potentilla anserina ssp. anserina	common silverweed	3	FACW	Y	x		x	x	x
Salicaceae	Salix nigra	black willow	5	OBL	Y	x				
Vitaceae	Vitis riparia	river grape, frost grape	3	FAC	Y	x		x	x	
Urticaceae	Boehmeria cylindrica	false nettle	7	OBL	Y			x		
Butomaceae	Butomus umbellatus	flowering rush		OBL	N	x				
Asteraceae	Eupatorium perfoliatum	boneset	3	FACW	Y			x		
Poaceae	Glyceria borealis	northern manna grass	7	OBL	Y	x				x
Poaceae	Glyceria melicaria	slender manna grass	7	OBL	Y	x				
Isoetaceae	Isoetes engelmannii	Engelmann's quillwort	6	OBL	Y			x		
Poaceae	Leersia oryzoides	rice cut grass	4	OBL	Y				x	
Campanulaceae	Lobelia cardinalis	cardinal flower	7	OBL	Y	x		x	x	x
Lythraceae	Lythrum salicaria	purple loosestrife		OBL	N	x	x		x	
Asparagaceae	Maianthemum stellatum	starry Solomon's seal	7	FAC	Y				x	
Cyperaceae	Schoenoplectus tabernaemontani	soft-stemmed bulrush	4	OBL	Y	x				x
Lamiaceae	Scutellaria galericulata	marsh skullcap	6	OBL	Y			x		
Smilacaceae	Smilax herbacea	common carrion flower	5	FAC	Y				x	

Solanaceae	Solanum dulcamara	bitter-sweet nightshade		FAC	N	x	x	x	
Potamogetonaceae	Stuckenia pectinata	Sago pondweed	2	OBL	Y	x		x	
Typhaceae	Typha angustifolia	narrow-leaved cattail	1	OBL	Y	x			

Sources:

Haines, A. (2011). *Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Vascular Plants of New England*. New England Wild Flower Society.

Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell†, and Robert Ingalls†. 2024 New York Flora Atlas. [S. M. Landry and K. N. Campbell (original application development), USF Water Institute. University of South Florida]. New York Flora Association, Albany, New York.



August, 7, 2024

Jonathan Stercho
NYSDEC Region 7 Headquarters
5786 Widewaters Pkwy
Syracuse, NY 13214

Dear Mr. Stercho,

Please accept the below comments regarding the Draft Environmental Impact Statement (DEIS) for the Cortlandville Sand and Gravel Mine Permit Modification.

The long standing mission of the Lime Hollow Nature Center includes “the protection of the natural resources of the Lime Hollow area”. The Lime Hollow area is of great ecological, cultural, educational, and economic importance to the Central NY region. It features critically threatened and endangered flora and fauna, rare and vulnerable geologic features which have been identified as unique and classic worldwide specimens of bogs and marl ponds. The Lime Hollow Nature Center actively practices land conservation and preservation around critical aquifer recharge zones to ensure clean drinking water and provides recreational opportunities including access to trails and community events which provide outdoor recreation residents and are vitally important to the tourism industry of the Finger Lakes region. Additionally, Lime Hollow Nature Center provides vital community services such as childcare programs for preschool aged children, out-of-school-time programming including after-school and summer camps which are utilized by hundreds of area residents.

We firmly believe that the expansion of the mine would negatively impact the Lime Hollow area with specific impacts on the marl ponds, groundwater, and greater ecosystem risk.

Marl Ponds

The marl ponds along the Cortland County Linear Park (Lehigh Valley Trail) are designated as a significant natural community by the NYS DEC and are classified as “marl pond shore” wetlands. They have a State Conservation Rank of S1, which means



that there are very few occurrences or remaining individual examples in NY and/or the wetland is especially vulnerable (Edinger et al., 2002, Ecological Communities of New York). They have Global Conservation Rank of G3-G4, which means that they are quite rare worldwide and/or are locally restricted. The unusual flora of these marl ponds were first noted by Dudley in 1883 (The Cayuga Flora) and again by Weigand and Eames in 1926 (The Flora of the Cayuga Lake Basin), and so the ponds have historical significance to biologists in addition to their high ecological value. *The importance of these marl ponds is such that they are specifically named as the type example in "Ecological Communities of New York State," NYS DEC's Natural Heritage Program, March 2014 <https://guides.nynhp.org/marl-pond/>*

Hydrological Sensitivity

The lands of the greater Lime Hollow area are the source for groundwater utilized by both the Town of Cortlandville and the USGS Tunison Laboratory of Aquatic Science (Tunison). The Town of Cortlandville is completely reliant on the groundwater provided by the Terrace Road and Lime Hollow Road well fields. The Terrace Road well field currently provides the majority of the water produced, but the Lime Hollow Road well field is capable of producing 100% of the municipal water provided by the town in the event of an emergency. The Cortland County Department of Health identified the lands straddling the former Lehigh Railroad corridor between Lime Hollow Road and Gracie Road as the source for the groundwater produced by the Lime Hollow Road well field in their 2001 Source Water Assessment Plan. The Tunison Lab is an aquatic laboratory that provides vital research support to New York, the United States and Canada for the entire Great Lakes Basin and the St. Lawrence River. Maintaining and protecting groundwater quality in and around Lime Hollow is of utmost importance.

In additional to the above, the following demonstrate the significance of the importance of the Lime Hollow area and the need to protect the area as a "Critical Environmental Area" pursuant to Official Compilation of Codes, Rules and Regulations of the State of New York, Title 6, Department of Environmental Conservation, Chapter VI. General Regulations, Part 617 State Environmental Quality Review Paragraph (g):

- I. **Lime Hollow: A Natural Preserve Summary and Plan dated August 1978:** The Cortland County Environment Management Council along with Cortland County Planning produced this comprehensive planning document



which outlined the importance of preserving and protecting this area. In addition to watershed protection, the study highlighted the area's unique natural features, "*Lime Hollow exhibits a number of ecological functions and unique botanical sites in an area of varied glacial topography and typical upland forest, as modified by the presence of both acidic and alkaline areas*" (the Chicago Bog and Marl Ponds, respectively).

II. **2016 NYS DEC Open Space Plan, Region 7 Supplemental Project, Page A-166:**

Fall Creek Fens and Forests - Town of Cortlandville, Cortland County, Towns of Dryden and Groton and Village of Freeville, Tompkins County. Expansion of efforts for the protection of the exceptional grouping of ecological communities and geological features along Fall Creek and its tributaries, and along Beaver Brook and its tributaries including the acquisition of lands adjacent to the Lime Hollow Nature Center for use in educational activities and to buffer existing lands. The area contains numerous and varied fens, bogs, swamps and glacial landforms.

III. **Chicago Bog Significance:** Lime Hollow Nature Center has requested that the NYS DEC reclassify the Chicago Bog Unique Natural Area from its current Class II category to a Class I category based on the definitions contained in Part 664: Freshwater Wetlands Maps and Classification (Statutory authority: Environmental Conservation Law §3-0301 and §24-1301) found at <http://www.dec.ny.gov/regs/4612.html>. According to this regulation, a wetland shall be a Class I wetland if it is classified as a classic kettle-hole bog IAW (664.6(b)(2)); as such wetlands of this type are very rare, as are many of the life form within them, and therefore they contribute to the ecological, geological, and aesthetic diversity of the state. This in turn provides educational and scientific research benefits.

The Town of Cortlandville recognized the unique importance of the Chicago Bog in February 2009, when, at the request of Town of Cortlandville Supervisor Richard Tupper, the Cortland County Industrial Development Agency passed Resolution No. 2009-02-09-02 regarding potential environmental impacts of proposed modifications to the Finger Lakes East



Business Park, (now Byrne Hollow Farm). Section 1 C of the resolution stated, "Imposition of a restrictive covenant prohibiting development within 500 feet of the Chicago Bog."

- IV. **Geological Significance:** The glacial landforms in this area include eskers, kames, kettles and a large meltwater channel that developed during the Valley Heads phase of the last glaciation. They are regionally significant because this is one of only very few areas where the full suite of landforms from this time are preserved on easily accessible public land. The meltwater channel is singularly important because it was the master outlet for Glacial Lake Freeville-Dryden, a large proglacial lake that extended from Cortlandville to Ithaca as the ice sheet margin retreated from the area. The Cortland Linear Park also overlies the deep bedrock valley of the ancestral Tioughnioga River which flowed from its headwaters in northern and eastern Cortland County to Ithaca before the ice ages. For these reasons, the area is visited every year by SUNY Cortland geology students as well as other geologists and the general public interested in their landscape history and glacial heritage.
- V. **Educational and Research Training Center:** Students and faculty from SUNY Cortland, SUNY Environmental Science and Forestry, and Cornell University have conducted research and instruction in the Chicago Bog and surrounding wetlands complex for many years. Dr. John Gustafson, former Chairman of the SUNY Cortland's Department of Biological Sciences, noted "this area creates an unparalleled opportunity for field study and recreation within easy distance of the Cortland urban area...The areas have been used for many years by classes,,,[and] their preservation and availability for public enjoyment and study must be ensured."
- VI. **Community Value:** Lime Hollow's mission is to provide year-round environmental education and outdoor recreation opportunities through utilization and protection of the natural and cultural attributes of the Lime Hollow area. Cortland County is one of only two counties in New York State that does not have a New York State Park. Lime Hollow provides many of the same qualities of life opportunities as a State Park for the citizens of Cortland County and the surrounding region. It also provides much needed childcare,



out-of-school-time programming for children, and community gathering events.

Respectfully,

A handwritten signature in black ink, appearing to read "Ilya Shmulenson".

Ilya Shmulenson
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