

Natural Resources Survey/Assessment

850 Route 28, LLC Site
Town of Kingston
Ulster County, NY

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Prepared by:

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1.0 INTRODUCTION

Ecological Solutions, LLC completed a natural resources survey supplement to the previous threatened and endangered species habitat assessment on a site totaling 109.96 acres located at 850 Route 28 in the Town of Kingston, New York (*Figure 1*). The proposed project is in two phases and includes a proposed structural steel and precast concrete manufacturing facility situated on a former rock mine. The proposed steel and concrete manufacturing facilities will be built in two phases. One building per phase is to encompass approximately 120,000 sq ft. The initial phase will combine both steel and concrete operations under one building until the second phase is constructed. The total land disturbance is to be +-37.7 acres and is shown on the map entitled, "850 Route 28, LLC Affected Habitats" prepared on October 28, 2019 by Medenbach & Eggers, Civil Engineering and Land Surveying PC (*Figure 2*). The threatened and endangered species report that was previously prepared for the project was reviewed by the New York State Department of Environmental Conservation.

The data contained in this report was gathered on August 22 and September 12, 2019. The assessment was limited to the proposed development area which was the focus of this report and this area was reviewed during each of the field visits.

2.0 METHODS

2.1 Ecological Community and Habitat Field Inventory

The vegetation inventory on the site included identification of ecological communities or habitat cover types. Cover types were reviewed with aerial photographs of the site and adjacent properties and subsequently by investigating the habitats on the site to identify and classify each. Within each cover type, visual searches for herbaceous and woody plant species or parts thereof, including leaves, bark, twigs, seeds, flowers, fruits, or other identifiable plant structures were conducted to identify and document vegetation on the site. Trees, shrubs, and fall flowering plants were identified to species levels where possible. A list of dominant or representative species observed in each habitat cover type is included in the Findings section of this report.

2.2 Wildlife Field Inventory

Field surveys were conducted for wildlife species including mammals, birds, and herpetiles (reptiles and amphibians).

A. **Mammals.** The following survey methods were utilized during the field survey:

1. Sign search, in which the observer records any recognizable signs (tracks, droppings, hair, bones, etc.) of mammal species.
2. Opportunistic mammal sightings, in which the observer identifies mammals encountered in the field at random.

Mammals were identified based on visual encounters, vocalizations, tracks, fur, bones, rubs, scrapes, droppings, and other recognizable signs in habitats throughout the site. Mammal species observed are included in the Findings section of this report.

B. **Birds.** Field methods used to survey for avian species included:

1. Walking transects where the observer records all species encountered (seen/heard) along a trail.
2. Opportunistic bird sighting, where the observer records birds encountered randomly.
3. Sign search, where the observer records signs (feathers, nests, droppings, tracks, etc.) of birds encountered in the field.

Birds were detected and identified by visual encounter with individuals, vocalizations, tracks, feathers, bones, droppings, castings, nests, drillings, or other recognizable signs.

Bird species observed in each habitat cover type are included in the Findings section of this report.

C. **Herptiles (Reptiles and Amphibians).** Field methods used to survey for herptile species included:

1. Log rolling (overturning logs, large stones, and other debris to reveal herptiles underneath).
2. Aural surveys were conducted for vocal herptiles. Herptiles were detected and identified by visual encounter, vocalizations, spermatophores, egg masses, and remains.

Herpetile species observed in each habitat cover type are included in the Findings section of this report.

3.0 FINDINGS

3.1 Habitat

Cover types identified on the site that will be impacted are in Table 1.0. The trees on the site in the area of development have generally been cleared as part of the previous operation of the quarry.

**Table 1.0
Habitat Cover Types**

NO.	
1	Mixed Upland Forest - 5.2 acres
2	Quarry/Previously Impacted Area - 32.5 acres
Total	37.7 acres

3.1-1 Terrestrial System

The terrestrial system on the site consists of upland habitats and developed area. These habitats have well-drained soils that are dry to mesic (never hydric), and vegetative cover that is never predominantly hydrophytic, even if the soil surface is occasionally saturated.

Mixed Upland Forest

The site contains a mixed upland forest with hemlock, white pine, birch, oaks, maples, shagbark hickory, black cherry, red maple, white ash. Trees are mainly in the 8-15 inch dbh range with larger trees located throughout the site and some contain the deadwood, exfoliating bark, crevices, and holes. The shrub layer included flowering dogwood (*Cornus florida*) black cherry (*Prunus serotina*), maple leafed viburnum (*Viburnum acerifolium*) and blueberries (*Vaccinium spp*). Wildlife observed in this habitat included white tailed deer, red fox, American robin, gray catbird, and northern cardinal.

Quarry Area

There is existing infrastructure on the site with old roads and trails located on the site that lead to and around the quarry area. Brown snake and garter snake were observed in this location.

3.2 Wildlife

3.2.1 Breeding Birds

A review of the 2nd New York State Breeding Bird Atlas was conducted and the following is a list of birds identified on the site in August and September 2019. The list of observed species includes: turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), gray catbird (*Dumetella carolinensis*), northern mockingbird (*Mimus polyglottos*), northern cardinal (*Cardinalis cardinalis*), and common grackle (*Quiscalus quiscula*).

3.2.2 Mammals

The following is a list mammals identified on the site in August and September 2019. The list of observed species includes: gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), and white-tailed deer (*Odocoileus virginiana*).

3.2.3 Amphibian/Reptiles

There were no amphibians and 2 reptiles (Brown snake and garter snake) identified on the site in August and September 2019.

4.0 REFERENCES

Habitat Cover Types:

Edinger, G.J. et.al. 2014. Ecological Communities of New York State. New York Natural Heritage Program.

Plants:

Gleason, H.A. and A. Cronquist. 1991. Manual of vascular plants of northeastern United States and adjacent Canada. Second edition. The New York Botanical Garden, Bronx, NY. 910 p.

Mitchell, R.S. 1986. A Checklist of New York State Plants. Bulletin no. 458, New York State Museum, Albany, NY.

Vertebrates:

Banks, R.C., R.W. McDiarmid, and A.L. Gardner. 1987. Checklist of Vertebrates of the United States, the U.S. Territories, and Canada. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Birds:

Baicich, P.J. and C.J.O. Harrison. 1997. A Guide to the Nests, Eggs and Nestlings of North American Birds, 2nd Ed.

The Second Atlas of Breeding Birds in New York State.

Amphibians and Reptiles:

Calhoun, A. J. K. and M. W. Klemens. 2002. Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States. MCA Technical Paper No. 5, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

Collins, J.T. 1990. Standard Common and Current Scientific Names for North American Amphibians and Reptiles. Third edition. Society for the Study of Amphibians and Reptiles. Herpetological circular no. 19. Lawrence, KS.

5.0 PHOTOGRAPHS

Site Area



Quarry Area



Mixed Forest Area to be Impacted



Area of Proposed Building



Area of Proposed Building



Figure 1 Location Map

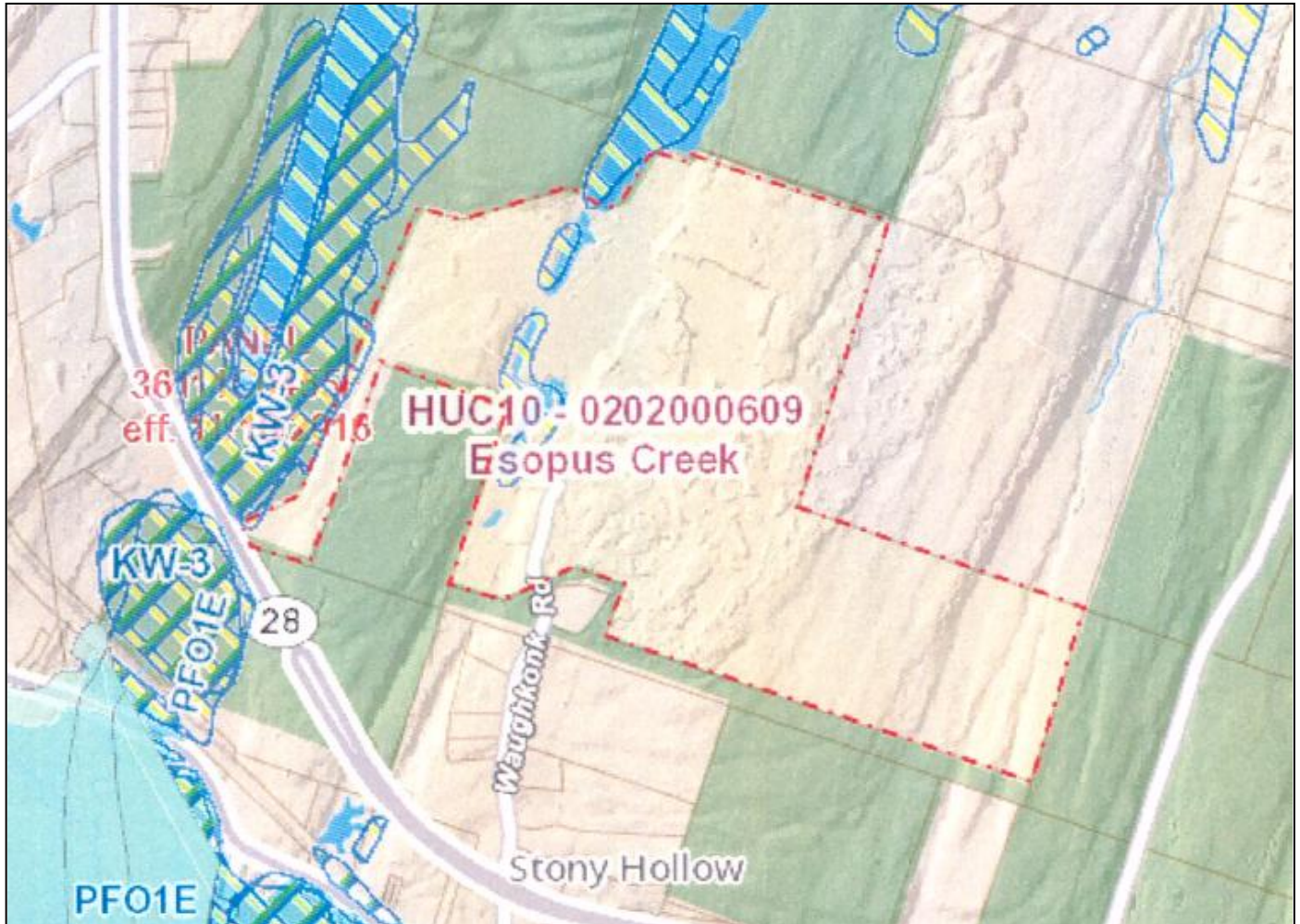
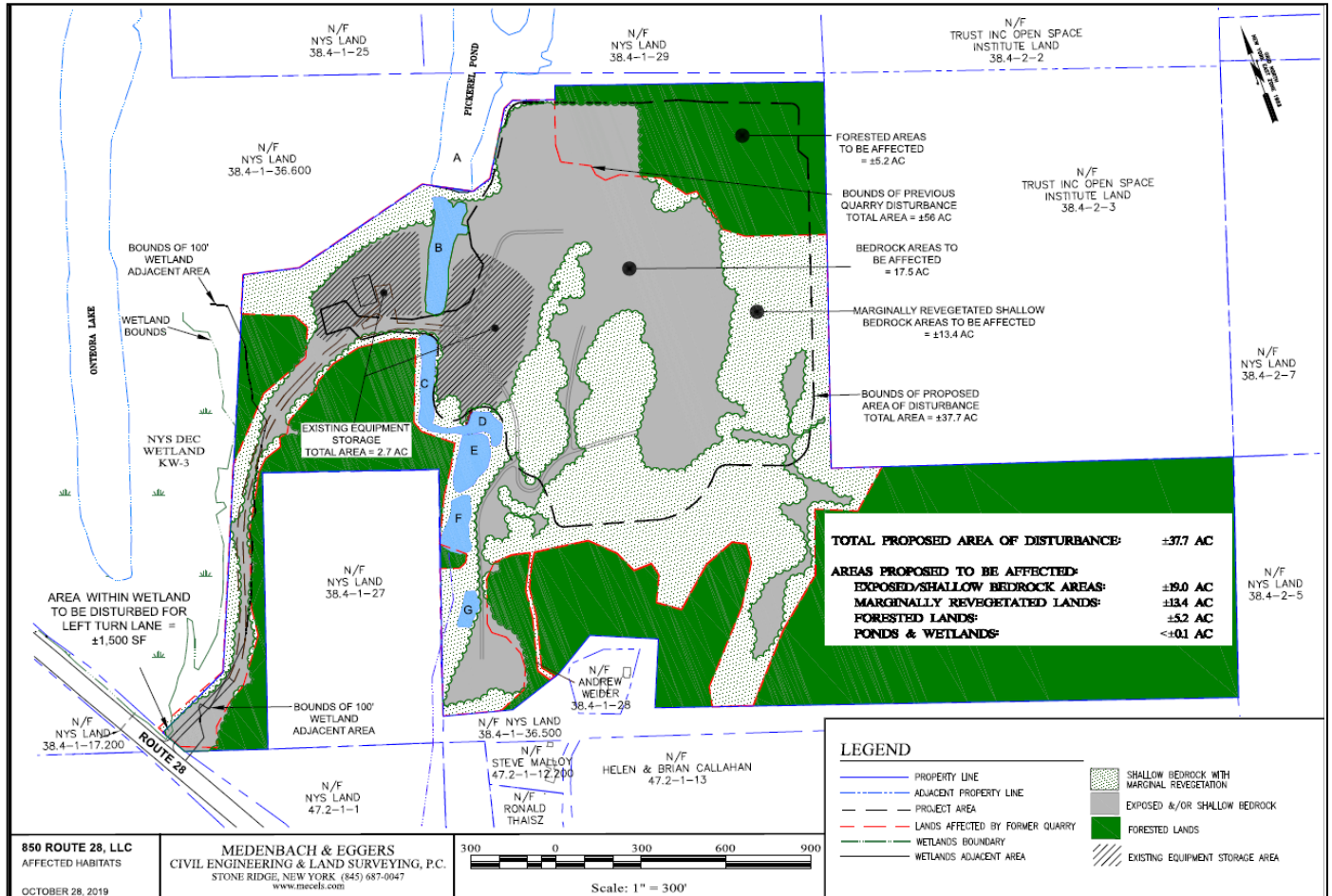


Figure 2 Affected Habitat Map



TOTAL PROPOSED AREA OF DISTURBANCE:	±37.7 AC
AREAS PROPOSED TO BE AFFECTED:	
EXPOSED/SHALLOW BEDROCK AREAS:	±19.0 AC
MARGINALLY REVEGETATED LANDS:	±13.4 AC
FORESTED LANDS:	±5.2 AC
PONDS & WETLANDS:	<±0.1 AC