Old Myers Solar

Tree Clearing Memorandum

March 15, 2023

Town of Wappinger,
Dutchess County, New York

Prepared For:

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1.0 Introduction

Old Myers NY LLC (Applicant) is proposing to develop a 2-megawatt alternating current (MWac) solar farm incorporating agrivoltaics in the Town of Wappinger, Dutchess County, New York, referred to as Old Myers Solar (Project).

To facilitate efficient and timely construction of the Project, the Applicant has requested to commence vegetation clearing prior to March 31, 2023, thereby avoiding potential impacts to the northern long-eared bat. To facilitate review and approval by the Town of Wappinger Planning Board, TRC completed an on-site review of proposed clearing areas to both flag the clearing areas ahead of the Planning Board's March 12th Field Trip, and also to characterize stand density and species in the areas to be cleared, so as to better inform the Planning Board in their decision to authorize tree felling in these areas on or by March 31, 2023. This Tree Clearing Memorandum serves as a summary of TRC's field investigation and evaluates the vegetated areas proposed to be cleared.

1.1 Project Description

The Project is proposed to be sited on a 13.8-acre leased portion of one 37.1-acre parcel of agricultural land on Myers Corners Road (Project Site; Figure 1). The solar farm would contain above ground project components including solar panels, racking systems, inverter, perimeter fencing, a pervious access road. In addition to these Project components, the dual-use opportunity of agrivoltaics would provide agricultural activities to persist in-between the solar arrays. The cultivation of small-growing crops between the solar modules is currently proposed.

Figure 1 - Project Overview Map

Each solar panel is proposed to reach a maximum height of 15 feet and is equipped with tracking technology for enhancing the capture of sunlight. This technology orients the solar panel in an east to west direction, depending on the position of the sun. Therefore, the solar panels will not assume a maximum height of 15 feet throughout the day, rather only when the sun is at its lowest point in the sky. For example, at mid-day the solar panels are expected to be oriented in a horizontal form, reaching a temporary reduced height of approximately 9 feet. At the beginning and end of the day, the panels will be at their maximum height of 15 feet and at a 60-degree angle, facing the sun at its lowest point in the sky.

As sunlight penetrates the photovoltaic cell modules (solar panels), DC electricity is generated, collected, and transported through several underground electrical wires that reconvene at the

inverter. The inverter converts the DC electrical energy to AC and the final output is routed underground to the point-of-interconnection (POI), which is responsible for bridging the supplemental renewable energy to the existing local grid. The POI will consist of several new medium-voltage poles along Myers Corners Road following a similar pattern or formation of the existing overhead transmission lines running along Myers Corners Road.

An eight-foot-high fixed-knot fence will encompass the site. The fence will have a six-inch gap at the ground surface to allow small wildlife passage. The fence will not include barbed wire and all posts will be comprised of wood.

One pervious access road is proposed for the Project and is approximately 16 feet in width. Additionally, a compacted and vegetated access path is proposed to facilitate POI maintenance. The access road and vegetated path will accommodate vehicular access for operation and maintenance requirements by responsible personnel.

2.0 Methods

A TRC environmental scientist visited the site on March 9 to delineate and mark the areas of proposed tree clearing (roughly 3.5 acres) to assist the Planning Board during their March 12 Field Trip. Tree clearing areas were marked with flagging tape on individual trees or along the perimeter of the area to be cleared. Additionally, the 100-foot wetland buffer located in the southwest portion of the Project Site was delineated using pin flags.

During this visit, TRC recorded notes and photographs of the clearing areas from which species composition and provisional estimates of number of stems are based, as summarized in Section 3 and Table 1. Wintertime tree identification is inherently challenging due to leaf-off conditions and relies on an examination of bark, buds, general growth habit, and to a lessor extent, leaves found in abundance at the bases of trees. Subsampling was used to characterize stem abundance, resulting in a range of stems reported in Table 1 as opposed to absolute values.

3.0 Observations

Much of the forested areas within the Project Area that are proposed for clearing are concentrated along relict rock walls or surrounding rock outcroppings that have been avoided by agriculture. Tree composition in these areas is heavily dominated by early-colonizing species that thrive in disturbed areas and along forest perimeters. Native species such as ashes and cherries are sparsely found against a backdrop of more densely occurring tree-of-heaven and buckthorn, which are both exotic, invasive species that tend to proliferate in edge habitats. More desirable hardwood trees such as oaks, maples, and hickory are also found sparsely across the site. Soils in the southwestern portion of the Project Area are more saturated and provide a better environment for wetland tolerant tree species such as red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), pin oak (*Quercus palustris*), black ash (*F. nigra*), and gray birch (*Betula populifolia*). The northern portion of the project is more mesic and contains species

such as sugar maple (*A. saccharum*), black cherry (*Prunus serotina*), northern red oak (*Q. rubra*), shagbark hickory (*Carya ovata*), white ash (*F. americana*), and eastern red cedar (*Juniperus virginiana*). Tree-of-heaven (*Ailanthus altissima*) and common buckthorn (*Rhamnus cathartica*), both noxious woody species, were ubiquitously common throughout the site.

In total, TRC estimates that a range of 260 to 365 trees are being proposed for felling throughout the roughly 1.4-acre clearing areas. Table 1 provides an estimated range summary by species. Appendix A provides a photograph log of site conditions as recorded on March 9, 2023.

Table 1. Species Composition and Estimated Abundance

Tree Species Observed		Estimated Stem Count
Common Name	**Scientific Name**	
Northern Red Oak	*Quercus rubra*	40 - 50
Sugar Maple	*Acer saccharum*	35 - 45
Black Cherry	*Prunus serotina*	30 – 35
Tree-of-Heaven	*Ailanthus altissima*	75 – 100
Eastern Red Cedar	*Juniperus virginiana*	15 – 25
White Ash	*Fraxinus americana*	15 – 25
Black Ash	*Fraxinus nigra*	10 – 15
Green Ash	*Fraxinus pennsylvanica*	10 – 15
Shagbark Hickory	*Carya ovata*	10 – 15
Pin Oak	*Quercus palustris*	5 – 10
Red Maple	*Acer rubrum*	5 – 10
Gray Birch	*Betula populifolia*	5 – 10
Common Buckthorn	*Rhamnus cathartica*	5 – 10

Attachment A
Photograph Log

Photograph 1. Flag-demarcated tree clearing section within the northern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 1. Flag-demarcated tree clearing section within the southern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 3. Flag-demarcated tree clearing section within the southern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 4. Flag-demarcated tree clearing section within the southeastern portion of the Project Area. Photograph taken 03/10/2023.

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Photograph 7. Individual trees flagged for clearing within the northeastern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 8. Individual trees flagged for clearing within the northeastern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 9. Individual trees flagged for clearing within the northwestern portion of the Project Area. Photograph taken 03/10/2023.

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Photograph 12. Tree clearing section within the southeastern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 13. Tree clearing section within the southeastern portion of the Project Area.

Photograph taken 03/10/2023.

Photograph 14. Flag demarcated tree clearing section within the southeastern portion of the Project Area.

Photograph taken 03/10/2023.

Photograph 15. Flag demarcated tree clearing section within the northwestern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 16. Tree clearing section within the southwestern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 17. Tree clearing section within the southwestern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 18. Tree clearing section within the southwestern portion of the Project Area. Photograph taken 03/10/2023.

Photograph 19. Tree clearing section within the southwestern portion of the Project Area. Photograph taken 03/10/2023.

