



EXCELSIOR ENERGY CENTER INVASIVE SPECIES MANAGEMENT AND CONTROL PLAN

Facility Operator:

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Juno Beach, FL 33408



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Revised December 2020

**Excelsior Energy Center
Invasive Species Management and Control Plan
For Construction Activities and Post-Construction Monitoring**

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Attachments

Attachment A. New York State Prohibited and Regulated Invasive Plants, September 10, 2014

1.0 Introduction

Excelsior Energy Center, LLC (Excelsior Energy Center or the Applicant), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra), is planning to construct, operate, and maintain the Excelsior Energy Center, a proposed 280 MW solar energy generation project and a 20 MW / 4 hour duration energy storage system located in the Town of Byron, Genesee County, New York (the Project). Project facilities will include commercial-scale solar arrays, access roads, inverters, fencing, buried electric collection lines, energy storage systems, and electrical interconnection facilities. Interconnection facilities will include a 345 kV switchyard, which will be transferred to the New York Power Authority (NYPA) to own and operate. The proposed collection substation and interconnection facilities will be located on land within the Project Area, in relative proximity to the NYPA 345 kV Line #NR2 between Niagara and N. Rochester substations.

The Project site consists of a patchwork of agricultural land, forests, successional old field, and wetland ecological communities. Construction activities may result in vegetation clearing and soil disturbance in the immediate vicinity of some proposed solar arrays, access roads, electrical collection lines, and associated infrastructure.

Invasive vegetative species are of special concern because their spread may cause environmental, human health, or economic harm on the large scale. For example, invasive species often out-compete native species because invasive species often lack control mechanisms that are present in their native habitats. The result can alter ecological communities and diminish biological diversity. Normal dispersal methods for invasive plant species include wind, water, vegetative propagation, and wildlife; however, anthropogenic means of spread (e.g., construction activity) are of particular interest in this Invasive Species Management and Control Plan (ISMCP) for plants. Because invasive plant species will readily spread in disturbed areas, construction activities related to the Project have the potential to accelerate their distribution and are the primary focus of this ISMCP.

1.1 Goals and Objectives

The intention of the ISMCP is to outline a clear plan to minimize the spread of invasive species within the Project Area. To prevent their spread, it is necessary to identify the existing invasive species within the Project Area and develop a plan to monitor and control the species during construction, restoration, and operation. The goal of the ISMCP is to maintain a zero percent increase in invasive species distribution and coverage within the Project Area.

Invasive species are regulated by the New York State Department of Environmental Conservation (NYSDEC) pursuant to Environmental Conservation Law (ECL) Sections 9-1709 and 71-0703. Regulations under Part 575 of 6 NYCRR restrict the sale, purchase, possession, propagation, introduction, importation, and transport of invasive species. This ISMCP is being developed in accordance with this regulation, to prevent the introduction of new, and spread of existing, invasive species within the Project Area.

2.0 Priority Invasive Plant Species within Region

The Project Area is in western New York and falls under the Western New York (WNY) Partnership for Regional Invasive Species Management (PRISM). There are eight PRISMs within New York State, each of which consists of the NYSDEC and their partners, including resource managers and users, non-governmental organizations, industry, citizens, and other state agencies and stakeholders (NYSDEC, 2019a). The PRISMs were enacted under Title 17, ECL 9-1705(5) (g). The WNY-PRISM prioritizes invasive species based on the ability to perform prevention, early detection, and control efforts. The WNY PRISM separates the species into five tiers: Tier 1 Early Detection/Prevention, Tier 2 Eradication, Tier 3 Containment, Tier 4 Local Control, and Tier 5 Monitor. Tier 1 Early Detection/Prevention represents the highest level of early detection survey efforts. Tier 2 Eradication represents the highest level of early detection response effort and eradication is feasible. Tier 3 Containment represents invasive species that are likely too widespread for eradication and therefore require strategic management to slow their spread. Eradication is possible of Tier 3 Containment invasive species only if there are adequate resources and effective control methods. Tier 4 Local Control means eradication is not possible within the PRISM and therefore strategic localized management is necessary to protect high-priority resources from these invasive species. Tier 5 Monitor represents species that require more research, mapping, and monitoring to better understand their invasiveness (Western New York Partnership for Regional Invasive Species Management, 2019).

The WNY PRISM identifies the following terrestrial plants and insects as Tier 1 through Tier 4 invasive species in the region (Note: Tier 5 species are not included. Tier 5 species include naturalized species and cultivated-only species that are known to be invasive in other regions but are not yet invasive here).

Table 1: Tier 1 Early Detection

Common Name	Scientific Name	Regional Distribution	Identified in Project Area
Balsam Woolly Adelgid	<i>Adelges piceae</i>	Not Present	No
Hardy Kiwi	<i>Actinidia arguta</i>	Not Present	No
Himalyan Balsam	<i>Impatiens glandulifera</i>	Not Present	No
Kudzu	<i>Pueraria montana</i>	Not Present	No
Common Name	Scientific Name	Regional Distribution	Identified in Project Area
Porcelain Berry	<i>Ampelopsis brevipedunculata</i>	Not Present	No
Wavyleaf Basketgrass	<i>Oplismenus undulatifolius</i>	Not Present	No

Table 2: Tier 2 Early Detection

Common Name	Scientific Name	Regional Distribution	Identified in Project Area
Hemlock Woolly Adelgid	<i>Adelges tsugae</i>	Early Detection	No
Japanese Angelica Tree	<i>Aralia elata</i>	Early Detection	No
Japanese Stiltgrass	<i>Microstegium vimineum</i>	Early Detection	No
Mile-a-Minute	<i>Persicaria perfoliata</i>	Early Detection	No
Slender False Brome	<i>Brachypodium sylvaticum</i>	Locally Common	No

Table 3: Tier 3 Containment

Common Name	Scientific Name	Regional Distribution	Identified in Project Area
Alewife	<i>Alosa pseudoharengus</i>	Locally Common	No
Flowering Rush	<i>Butomus umbellatus</i>	Locally Common	No
Giant Hogweed	<i>Heracleum mantegazzianum</i>	Scattered	No
Oriental Bittersweet	<i>Celastrus orbiculatus</i>	Locally Common	No
Swallow-wort, Black	<i>Cynanchum louiseae</i>	Common	No

Table 4: Tier 4 Local Control

Common Name	Scientific Name	Regional Distribution	Identified in Project Area
Autumn Olive	<i>Elaeagnus umellata</i>	Common	No
Black Locust	<i>Robinia pseudoacacia</i>	Common	Yes
Border Privet	<i>Ligustrum obtusifolium</i>	Common	No

Brittle Naiad	<i>Najas minor</i>	Common	No
Bush Honeysuckles	<i>Lonicera spp.</i>	Widespread	No
Canada Thistle	<i>Cirsium arvense</i>	Widespread	Yes
Cattails - Narrowleaf, Hybrid	<i>Typha angustifolia, T. x glauca</i>	Widespread	No
Common Buckthorn	<i>Rhamnus cathartica</i>	Widespread	Yes
Common Reed	<i>Phragmites australis</i>	Widespread	Yes
Dames Rocket	<i>Hesperis matronalis</i>	Widespread	Yes
Garlic Mustard	<i>Alliaria petiolata</i>	Widespread	Yes
Alder / Glossy Buckthorn	<i>Frangula alnus</i>	Widespread	Yes
Japanese Barberry	<i>Berberis thunbergii</i>	Widespread	Yes
Japanese Honeysuckle	<i>Lonicera japonica</i>	Unknown*	Yes
Knotweeds	<i>Reynoutria spp.</i>	Widespread	No
Lesser Celandine	<i>Ficaria verna</i>	Common	No
Mugwort	<i>Artemisia vulgaris</i>	Widespread	No
Multi-flora Rose	<i>Rosa multi-flora</i>	Widespread	Yes
Norway Maple	<i>Acer platanoides</i>	Widespread	No
Purple Loosestrife	<i>Lythrum salicaria</i>	Widespread	No
Reed Canary grass	<i>Phalaris arundinacea</i>	Widespread	Yes
Spotted Knapweed	<i>Centaurea maculosa</i>	Common	No
Swallow-wort, Pale	<i>Cynanchum rossicum</i>	Common	Yes
Wild Parsnip	<i>Pastinaca sativa</i>	Widespread	No
Yellow Flag Iris	<i>Iris pseudacorus</i>	Common	Yes

2.1 Invasive Plant Species Identified within Project Area

As part of the Project field efforts, ecological resource surveys were conducted for the Excelsior Energy Center in the spring and summer of 2019. During the ecological resource surveys and wetland and stream delineations, TRC biologists documented occurrences of invasive species within the Project Area. Prior to initiating the field effort, field biologists reviewed the priority list of invasive species for the region and key identifying characteristics using the [imapinvasives](#) website. While conducting field surveys, TRC biologists recorded observations of invasive plants and animals. Stands of invasive plants were recorded when a species was present at a concentration of 10 percent or greater over an area of 100 square feet or greater or if it was a species of concern for even a single plant (e.g. giant hogweed). If plant species meeting this criteria were identified, then a point was taken using the GPS and noted the species observed,

the concentration of the species, and the area affected. When priority invasive animals were observed, a similar process was followed to document the approximate location of the species, behaviors observed (if applicable), and the number of individuals observed. This data was used to generate a map depicting the locations of occurrences of invasive species throughout the Project Area.

As part of the field efforts, TRC identified 14 invasive vegetative species, which are listed as prohibited on the *Prohibited and Regulated Invasive Plants* list published by the NYSDEC on September 10, 2014 (see Attachment A) or listed as a priority invasive according to the WNY-PRISM. Inclusion on the prohibited list means that they cannot be possessed, sold, imported, purchased, transported or introduced and therefore, construction activities which would knowingly cause distribution of these species is prohibited.

The following invasive plant species were identified in low densities throughout the Project Area:

- alder (aka glossy) buckthorn (*Frangula alnus*),
- black locust (*Robinia pseudoacacia*),
- common buckthorn (*Rhamnus cathartica*),
- common reed (*Phragmites australis*),
- Canada thistle (*Cirsium arvense*),
- dames rocket (*Hesperis matronalis*)*,
- garlic mustard (*Alliaria petiolate*),
- Japanese barberry (*Berberis thunbergii*),
- Japanese honeysuckle (*Lonicera japonica*),
- Morrow honeysuckle (*Lonicera morrowii*)**,
- multiflora rose (*Rosa multiflora*),
- reed canary grass (*Phalaris arundinacea*)*,
- pale swallow wart (*Vincetoxicum rossicum*), and
- yellow flag iris (*Iris pseudacorus*).

*Not Listed as prohibited on the NYSDEC *Prohibited and Regulated Invasive Plants* list;
Identified as invasive by WNY PRISM

****Not identified by WNY PRISM; Listed as prohibited on the NYSDEC *Prohibited and Regulated Invasive Plants* list**

Of the 14 species identified within the Project Area, 13 of the invasive species are listed as Tier 4 Local Control invasive plant species on the WNY-PRISM regional invasive species list and 12 are also listed as prohibited on the NYSDEC *Prohibited and Regulated Invasive Plants* list.

3.0 Invasive Insect Species in Vicinity of the Project Area

As previously mentioned, TRC biologists documented observed occurrences of invasive species within the Project Area during ecological resource survey field efforts. No invasive insect species, or signs of infestation, were observed as part of this field effort; however, one insect species, the emerald ash borer (*Agrilus planipennis*) is listed as a Tier 4 Local Control invasive insect within the WNY-PRISM. Additional information regarding this species is presented below.

3.1 Emerald Ash Borer (*Agrilus planipennis*)

The emerald ash borer (EAB) (*Agrilus planipennis*) is an invasive beetle, native to Asia, which was first identified in the United States in 2002 (in Michigan). In New York, the EAB was first identified in Cattaraugus County in 2009, and has now spread to 50 counties, including Genesee County (NYSDEC, 2020). This insect infects ash (*Fraxinus* spp.) trees and causes tree canopy dieback, yellowing and browning of leaves, leading to death of infected trees within two to four years (NYSDEC, 2017).

The EAB has a one-year life cycle and four stages of life: adult, egg, larva and pupa. The EAB emerges from beneath the bark tree of ash species beginnings in late-May or early-June (NYIS, n.d.), with the adult flight season complete by early August. The adult life span is approximately three weeks and the adults are most active during the day in sunny, warm weather. In wet or cooler weather, adult EAB shelter beneath the bark of ash trees (NYIS, n.d.).



Photo 5. Emerald ash borer adult (NYSDEC, 2017b).

New York State has implemented programs to help with early detection of EAB to prevent the spread, and all of Genesee County is included in the May 2017 Restricted Zone for the EAB.

Restricted Zones include quarantines around known EAB infestations. Within these zones, regulated articles may not be removed from the zone without a compliance agreement or permit from the New York State Department of Agriculture and Markets (NYSDAM). These permits are required only for removals occurring during the non-flight season of the EAB, which is between September 1 and April 30 (NYSDEC, 2017). Regulated articles include ash wood, ash logs, ash firewood (untreated), ash nursery stock, and wood chips (only between April 15 and May 15). Additionally, in accordance with 6 NYCRR Part 575 (Prohibited and Regulated Invasive Species), the EAB itself may not be moved in any life stage, unless for management, control, identification or disposal (NYSDEC, 2017).

The Project will comply with the Restricted Zone requirements and will contact the NYSDEC's Firewood and Invasive Insects Hotline at (866) 640-0652 if a suspected infestation or sighting is identified as part of the Project. Additionally, the Project will not transport ash products offsite.

4.0 Control Measures – Best Management Practices

To prevent introduction and spread of the listed species, the following best management practices (BMP's) will be enacted by the Applicant over the course of project construction and as part of the post construction monitoring effort. These BMP's can be grouped into four main categories including: material inspection, targeted species treatment and removal, sanitation, and restoration. Within each category, specific actions or combinations thereof can be taken depending on characteristics of a particular species and its density within the target area.

1. **Material Inspection:** Material inspection includes ensuring the use of products such as seed, mulch, topsoil, fill, sand, and stone that are free of invasive species. Movement of these materials both into and out of the Project Area should be limited to minimize the possibility of spreading invasive species. Importation of these materials should be limited by reusing excavated products to the maximum extent practicable. Imported construction materials should be obtained from reputable sources and thoroughly inspected for the presence of invasive species prior to transportation or use on the site. Materials will be used immediately to limit the amount of time they are stockpiled.
2. **Targeted Species Treatment and Removal:** Targeted removal is used in instances where invasive species are encountered during construction and cannot be avoided. Removal in that instance would prevent spread of the species to other areas of the Project

Area. Targeted removal includes options such as hand-pulling, burning, cutting, burying, excavating, or herbicide application which will either kill, or limit the ability of a species to propagate. Herbicide application shall be carried out in accordance with Part 325 of 6 NYCRR, Application of Pesticides. Removal methods will be determined based on the species and density of the encountered invasive. Invasive species that are removed should be either left in the infested area or placed in a secure container for proper disposal offsite.

3. **Sanitation:** As it relates to invasive species control, sanitation includes the cleaning of clothing and equipment prior to movement or use within the Project Area. Seeds and viable plant parts can easily be transported to different locations on clothing and equipment. When working in an area known to have invasive species present, washing stations should be established to thoroughly clean machinery and clothing. It is important to note that cleaning should be conducted both prior to equipment arriving on site and prior to it leaving, to prevent the spread of invasive species onto and off of a work site within the Project Area.
4. **Restoration:** Invasive species spread most readily in disturbed soil. Consequently, stabilizing the site quickly will limit the amount of time that invasive species may become established in a particular area. Therefore, once construction is complete, disturbed areas should be regraded and stabilized (with seed and mulch) as quickly as possible. Once the site is regraded, native seed mixes should be applied along with seed-free mulch to reestablish vegetative cover. Best management practices (BMPs) should also be implemented in accordance with the Stormwater Pollution Prevention Plan to prevent erosion and limit the potential for spread of invasive species bearing soil on and off site.

5.0 Monitoring

Prior to the start of construction, Excelsior Energy Center, LLC, in coordination with the Environmental Monitor, will conduct mandatory environmental training sessions for contractors and subcontractors before they begin work on the Project. The purpose of this training will be to explain the environmental compliance program in detail and assure that all personnel on site are aware of the environmental requirements for construction of the Project. Additionally, crews will be educated regarding the contents of the ISMCP to ensure that their activities on site comply with the BMPs outlined in section 4.0 and that they are familiar with the invasive species present

as outlined in section 2.0 and 3.0. Monitoring will be conducted throughout the duration of the Project to ensure that the ISMCP is being implemented appropriately and that the goals outlined in it are being met. It is important to note that invasive species identified on site prior to construction are likely to spread even in the absence of further human intervention. It is therefore necessary to distinguish between natural movement of invasive species and anthropogenic movement caused by Project related construction activities. The ISMCP goal of a zero-net increase in the number of invasive species present and their distribution in the Project Area is based on the potential anthropogenic spread.

Post-construction invasive species monitoring will be conducted for a period of no less than five years following completion of Project related construction activities on site. More specifically, Excelsior Energy Center, LLC proposes that the post-construction monitoring of invasive species will be conducted in year one, year three, and year five following completion of construction and restoration. This is to ensure that ISMCP goals are met, as germination and spread of invasive species can continue long after construction activities have concluded. To achieve the goal of a zero-net increase in the number of invasive species present in the Project Area and no new locations of existing invasive species in the Project Area resulting from Project construction or operation, both the Post-construction Monitoring Plan and Adaptive Management Plan (if necessary) will be based on the Invasive Plant Species Survey Baseline Report (Baseline Species Report). A qualified biologist, on behalf of the Applicant, will monitor the area to determine the movement of invasive species through a visual inspection and compare to the Baseline Species Report. If the spread or new occurrences of invasive species is observed by the qualified biologist, these instances will be treated in accordance with the control measures listed above, as deemed appropriate based on the characteristics of the invasive species. Interim reports will be produced for each year of monitoring, and a final report will be prepared detailing the success of the ISMCP. Reports will be provided to the NYSDEC, DPS, the Town, and AGM. Evaluation of measures implemented will be completed following each monitoring period, and an adaptive management plan will be employed where appropriate to ensure objectives of the ISMCP are met. Failure to meet the goals of the ISMCP will result in revision of the control plan and extension of the post construction monitoring phase for a period of two years from implementation of the revised plan. If it is determined that the goals of the 5-Year post-construction monitoring plan are not being met, DPS, NYSDEC, the Town, AGM, and the Applicant can meet to determine appropriate adaptive management actions, revisions to the post-construction monitoring plan, or mitigations measures, as necessary.

6.0 References

New York State Department of Environmental Conservation [NYSDEC]. 2017a. Partnerships for Regional Invasive Species Management (PRISM). Accessed January 2020 from: <http://www.dec.ny.gov/animals/47433.html>

NYSDEC. 2020. Confirmed Emerald Ash Borer in New York State by County. Accessed January 2020 from: https://www.dec.ny.gov/docs/lands_forests_pdf/eabdistribution2019.pdf

New York Invasive Species Information [NYIS]. 2017. 6 NYCRR Park 575 Prohibited and Regulated Invasive Species. Retrieved April 2020 from: http://www.nyis.info/?action=nycrr_575

NYIS. n.d. Emerald ash borer (*Agrilus planipennis*). Accessed January 2020 from: http://nyis.info/invasive_species/emerald-ash-borer/

Western New York Partnership for Regional Invasive Species Management (WNY-PRISM) 2019. Priority Invasives. Accessed on January 2020 from: <https://www.wnyprism.org/priority-invasives>.



Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

0

250

500

Feet

1 inch = 500 feet

1

2

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MAP LOCATION

NEXTERA

ENERGY

RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 1 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

0

250

500

Feet

1 inch = 500 feet

1	2	3	4
5	6	7	8
9	10	11	12

MAP LOCATION

NEXTERA

ENERGY

RESOURCES

BASLINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 2 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Dames Rocket

(Hesperis matronalis)

Honey Suckle

(Lonicera spp.)

Phragmites – Common Reed

(Phragmites australis)

0

250

500

Feet

1 inch = 500 feet

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MAP LOCATION

New York

NEXTERA

ENERGY

RESOURCES

BASLINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 3 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Approximate Invasive Species Locations

Japanese Barberry (*Berberis thunbergii*)

0250500

Feet

1 inch = 500 feet

1234

5678

9101112

MAP LOCATION

NEXTERA ENERGY RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 4 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Approximate Invasive Species Locations

Honey Suckle (*Lonicera spp.*)

Multiflora Rose (*Rosa multiflora*)

0

250

500

Feet

1 inch = 500 feet

N

1	2	3	4
5	6	7	8
9	10	11	12

MAP LOCATION

NEXTERA ENERGY RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 5 OF 12

FIGURE 1

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Black Locust

(Robinia pseudoacacia)

Phragmites – Common Reed

(Phragmites australis)

Yellow Flag Iris

(Iris pseudobacorus)

0

250

500

Feet

1 inch = 500 feet

1	2	3	4
5	6	7	8
9	10	11	12

MAP LOCATION

NEXTERA ENERGY RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 6 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Approximate Invasive Species Locations

Garlic Mustard (*Alliaria petiolata*)

Multiflora Rose (*Rosa multiflora*)

0

250

500

Feet

1 inch = 500 feet

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MAP LOCATION

New York

NEXTERA[®]

ENERGY

RESOURCES

BASILINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 7 OF 12

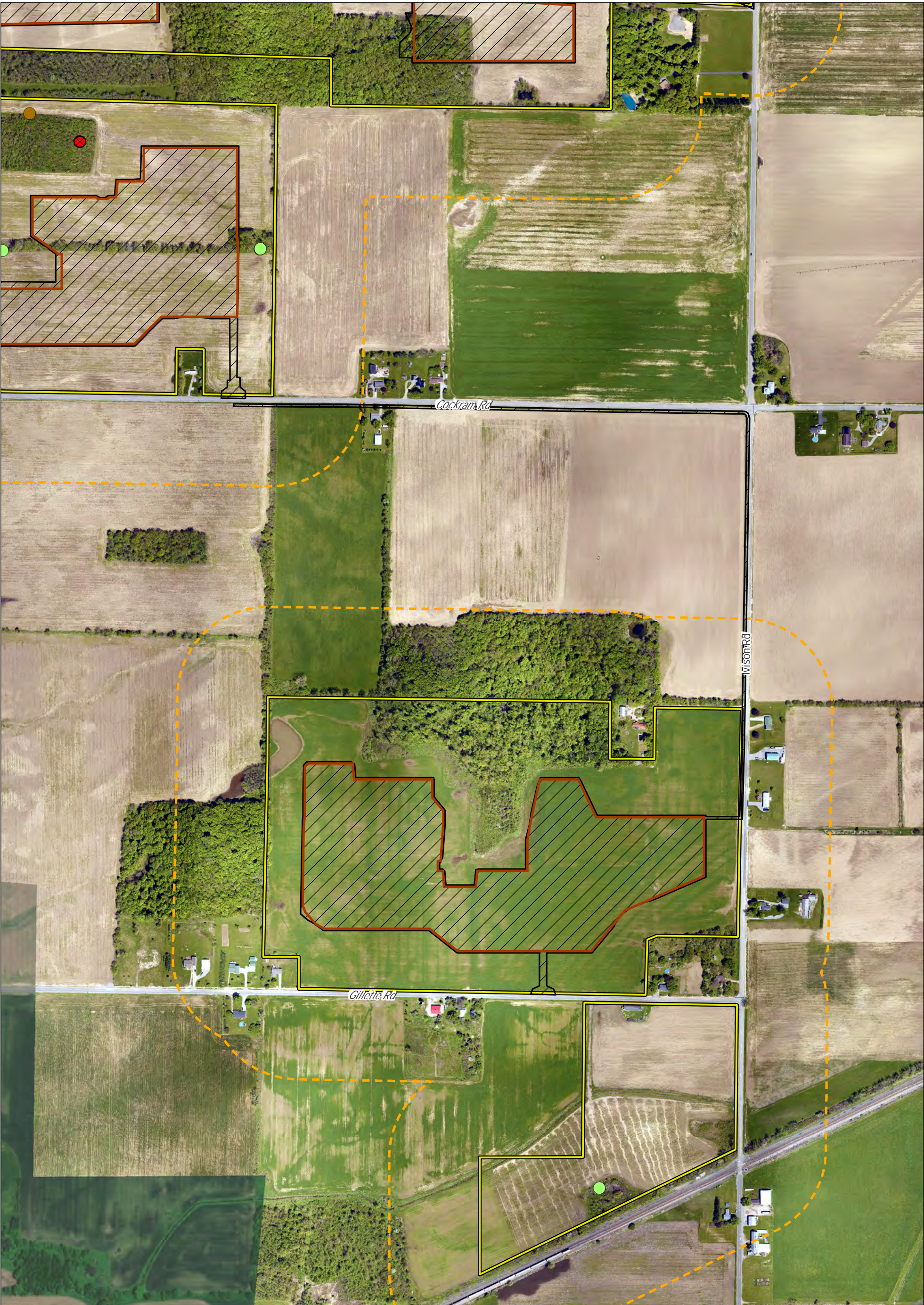
FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Buckthorn

(Rhamnus cathartica)

Garlic Mustard

(Alliaria petiolate)

Honey Suckle

(Lonicera spp.)

Multiflora Rose

(Rosa multiflora)

0

250

500

Feet

1 inch = 500 feet

1

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12

MAP LOCATION

NEXTERA

ENERGY

RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 8 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

0

250

500

Feet

1 inch = 500 feet

1

2

3

4

5

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11

12

MAP LOCATION

NEXTERA

ENERGY

RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

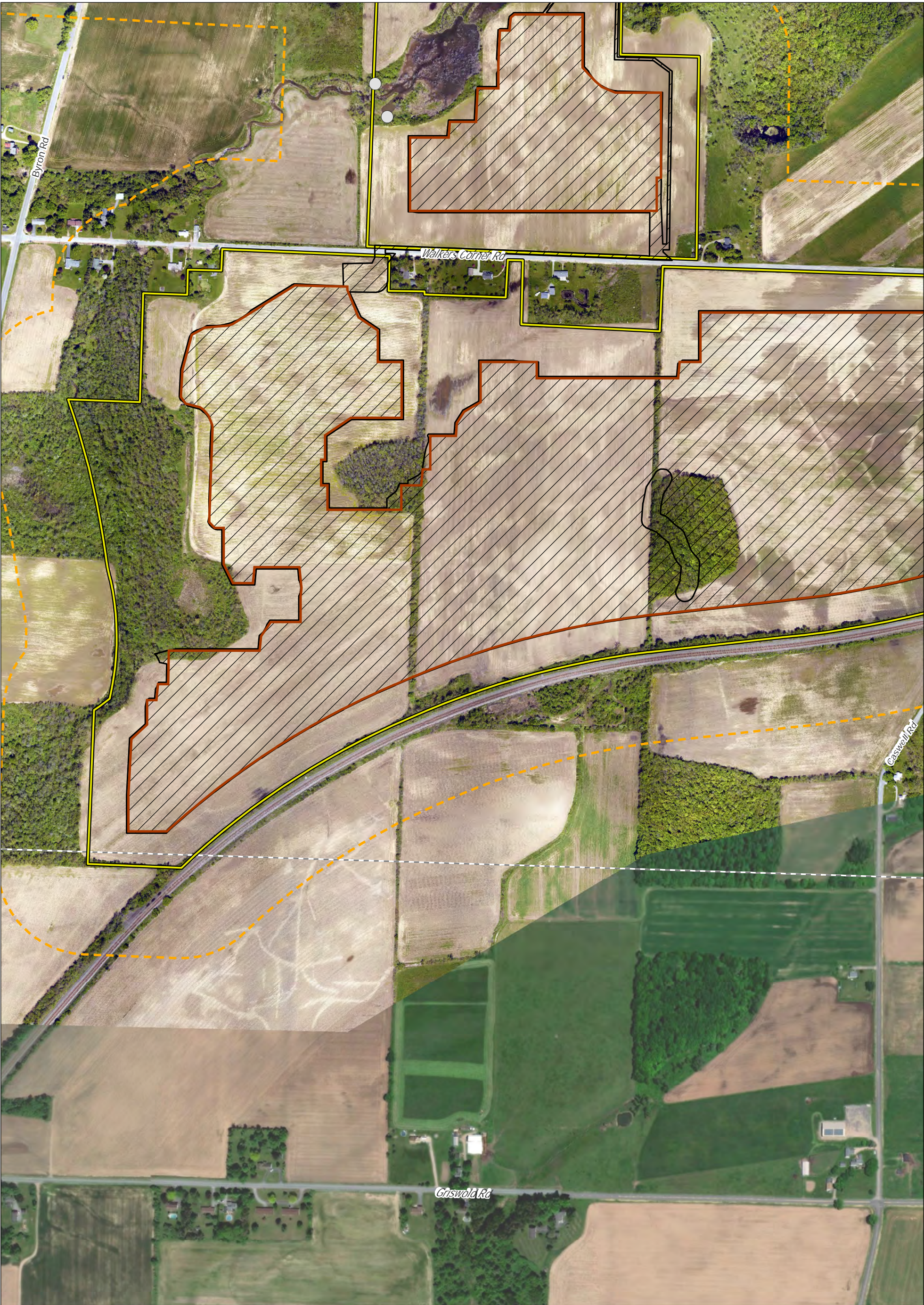
SHEET 9 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

Approximate Invasive Species Locations

Pale Swallow Wart (*Vincetoxicum rossicum*)

0

250

500

Feet

1 inch = 500 feet

1	2	3	4
5	6	7	8
9	10	11	12

MAP LOCATION

NEXTERA ENERGY RESOURCES

BASELINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 10 OF 12

FIGURE 1

DECEMBER 2020

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Proposed Facility Limits

Limit of Disturbance (LOD)

500-Ft Buffer Around Project Area

Project Area

0

250

500

Feet

1 inch = 500 feet

N

1	2	3	4
5	6	7	8
9	10	11	12

MAP LOCATION

NEXTERA

ENERGY

RESOURCES

BASLINE INVASIVE SPECIES SURVEY

EXCELSIOR ENERGY CENTER, LLC

TOWN OF BYRON, NY

SHEET 11 OF 12

FIGURE 1

DECEMBER 2020

Map Produced by

TRC

S:\1-PROJECTS\NEXTERA\328808_Excelsior\6-MXD\Fig1_Excelsior_Invasives_6000_11x17P.mxd



500-Ft Buffer Around Project Area

Project Area

N

0250500

Feet

1 inch = 500 feet

12

11

10

9

8

7

6

5

4

3

2

1

MAP LOCATION

NEXTERA

ENERGY

RESOURCES

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SHEET 12 OF 12

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Attachment A

New York State Prohibited and Regulated Invasive Plants

September 10, 2014



NYS DEPARTMENT OF
ENVIRONMENTAL CONSERVATION



NYS DEPARTMENT OF
AGRICULTURE AND MARKETS

New York State Department of Environmental Conservation
NYCRR Part 575 Invasive Species Regulations
Questions and Answers

<http://www.dec.ny.gov/regulations/2359.html>

What are invasive species?

Invasive species means a species that is nonnative to a particular ecosystem, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Why are invasive species a problem?

Invasive species can harm natural communities and systems (plants and animals found in particular physical environments) by out-competing native species, reducing biological diversity, altering community structure and, in some cases, changing ecosystems. Invasive species threaten New York's food supply, not only agriculture but also harvested wildlife, fish and shellfish; our landscaping, parks, gardens, and pets; and our recreation resources and even animal and human health. All New Yorkers have a stake in the invasive species issue.

How will these regulations help?

These regulations are to help control invasive species by reducing the introduction and spread of them by limiting commerce in such species. By preventing introduction of new invasive species, New York will save time, effort, and money in the future.

How were the lists included in the regulations developed?

The lists of prohibited and regulated species were developed using the species assessment and listing process outlined in the 2010 report "A Regulatory System for Non-native Species," which can be found at <http://www.dec.ny.gov/animals/63402.html>.

When will the regulations be implemented?

The final regulations (or a summary) were published in the State Register September 10, 2014, they become effective 6 months thereafter.

What is the difference between prohibited and regulated invasive species?

Prohibited invasive species cannot be knowingly possessed with the intent to sell, import, purchase, transport or introduce. In addition, no person shall sell, import, purchase, transport, introduce or propagate prohibited invasive species. Regulated invasive species, on the other hand, are species which cannot be knowingly introduced into a free-living state, or introduced by a means that one should have known would lead to such an introduction, although such species shall be legal to possess, sell, buy, propagate and transport.

What species have grace periods established in the regulations?

A one-year grace period is included in the regulations for Japanese Barberry (*Berberis thunbergii*), during which existing stock of this species may be sold.

Who will enforce the regulations?

The regulations will be enforced by the Department of Environmental Conservation, with assistance from the Department of Agriculture and Markets.

TERRESTRIAL PLANTS

PROHIBITED



Amur Cork Tree *Phellodendron amurense*

PROHIBITED



Amur Honeysuckle *Lonicera maackii*

PROHIBITED



Autumn Olive *Elaeagnus umbellata*

PROHIBITED



Beach Vitex *Vitex rotundifolia*

PROHIBITED



Black Swallow-wort *Cynanchum louiseae*
(*C. nigrum*, *Vincetoxicum nigrum*)

PROHIBITED



Bohemian Knotweed *Reynoutria x bohemica*
(*Fallopia x bohemica*, *Polygonum x bohemica*)

PROHIBITED



Border Privet *Ligustrum obtusifolium*

PROHIBITED



Broad-leaved Pepper-grass
Lepidium latifolium

PROHIBITED



Canada Thistle *Cirsium arvense*
(*C. setosum*, *C. incanum*, *Serratula arvensis*)

TERRESTRIAL PLANTS

PROHIBITED



Chinese Lespedeza *Lespedeza cuneata*

PROHIBITED



Chinese Yam *Dioscorea polystachya (D. batatas)*

PROHIBITED



Cogon Grass *Imperata cylindrica*
(*I. arundinacea*, *Lagurus cylindricus*)

PROHIBITED



Common Buckthorn *Rhamnus cathartica*

PROHIBITED



Cup-plant *Silphium perfoliatum*

PROHIBITED



Cut-leaf Teasel *Dipsacus laciniatus*

PROHIBITED



Cypress Spurge *Euphorbia cyparissias*

PROHIBITED



Fly Honeysuckle *Lonicera x bella*

PROHIBITED



Garden Loosestrife *Lysimachia vulgaris*

TERRESTRIAL PLANTS

PROHIBITED



Garlic Mustard *Alliaria petiolata*

PROHIBITED



Giant Hogweed *Heracleum mantegazzianum*

PROHIBITED



Giant Knotweed *Reynoutria sachalinensis*
(*Fallopia sachalinensis*, *Polygonum sachalinensis*)

PROHIBITED



Golden Bamboo *Phyllostachys aurea*

PROHIBITED



Gray Florist's Willow *Salix atrocinerea*

PROHIBITED



Japanese Angelica Tree *Aralia elata*

PROHIBITED



Japanese Barberry *Berberis thunbergii*

PROHIBITED



Japanese Chaff Flower *Achyranthes japonica*

PROHIBITED



Japanese Honeysuckle *Lonicera japonica*

TERRESTRIAL PLANTS

PROHIBITED



Japanese Hops *Humulus japonicus*

PROHIBITED



Japanese Knotweed *Reynoutria japonica*
(*Fallopia japonica*, *Polygonum cuspidatum*)

PROHIBITED



Japanese Stilt Grass *Microstegium vimineum*

PROHIBITED



Kudzu *Pueraria montana*

PROHIBITED



Leafy Spurge *Euphorbia esula*

PROHIBITED



Lesser Celandine *Ficaria verna*
(*Ranunculus ficaria*)

PROHIBITED



Mile-a-minute Weed *Persicaria perfoliata*
(*Polygonum perfoliatum*)

PROHIBITED



Morrow's Honeysuckle *Lonicera morrowii*

PROHIBITED



Mugwort *Artemisia vulgaris*

TERRESTRIAL PLANTS

PROHIBITED



Multiflora Rose *Rosa multiflora*

PROHIBITED



Narrowleaf Bittercress *Cardamine impatiens*

PROHIBITED



Oriental Bittersweet *Celastrus orbiculatus*

PROHIBITED



Pale Swallow-wort *Cynanchum rossicum*
(*C. medium*, *Vincetoxicum medium*, *V. rossicum*)

PROHIBITED



Porcelain Berry *Ampelopsis brevipedunculata*

PROHIBITED



Slender False Brome
Brachypodium sylvaticum

PROHIBITED



Small Carpetgrass *Arthraxon hispidus*

PROHIBITED



Spotted Knapweed *Centaurea stoebe*
(*C. biebersteinii*, *C. diffusa*, *C. maculosa* misapplied,
C. xpsammogena)

PROHIBITED



Sycamore Maple *Acer pseudoplatanus*

TERRESTRIAL PLANTS

PROHIBITED



Tartarian Honeysuckle *Lonicera tatarica*

PROHIBITED



Wavyleaf Basketgrass *Oplismenus hirtellus*

PROHIBITED



Wild Chervil *Anthriscus sylvestris*

PROHIBITED



Wineberry *Rubus phoenicolasius*

PROHIBITED



Yellow Groove Bamboo
Phyllostachys aureosulcata

TERRESTRIAL PLANTS

REGULATED



Black Locust *Robinia pseudoacacia*

REGULATED



Burning Bush *Euonymus alatus*

REGULATED



Chinese Silver Grass *Miscanthus sinensis*

REGULATED



Japanese Virgin's Bower
Clematis terniflora

REGULATED



Norway Maple *Acer platanoides*

REGULATED



Winter Creeper *Euonymus fortunei*

WETLAND PLANTS

PROHIBITED



Common Reed Grass *Phragmites australis*

PROHIBITED



Marsh Dewflower *Murdannia keisak*

PROHIBITED



Purple Loosestrife *Lythrum salicaria*

PROHIBITED



Reed Manna Grass *Glyceria maxima*

PROHIBITED



Smooth Buckthorn *Frangula alnus*
(*Rhamnus frangula*)

PROHIBITED



Yellow Iris *Iris pseudacorus*

AQUATIC PLANTS

PROHIBITED



Brazilian Waterweed *Egeria densa*

PROHIBITED



Broadleaf Water-milfoil Hybrid
Myriophyllum heterophyllum x *M. laxum*

PROHIBITED



Curly Pondweed *Potamogeton crispus*

PROHIBITED



Eurasian Water-milfoil
Myriophyllum spicatum

PROHIBITED



Fanwort *Cabomba caroliniana*

PROHIBITED



Floating Primrose Willow
Ludwigia peploides

PROHIBITED



Frogbit *Hydrocharis morsus-ranae*

PROHIBITED



Hydrilla/Water Thyme *Hydrilla verticillata*

PROHIBITED



Parrot-feather *Myriophyllum aquaticum*

AQUATIC PLANTS

PROHIBITED



Uruguayan Primrose Willow
Ludwigia hexapetala (*L. grandiflora*)

PROHIBITED



Water Chestnut *Trapa natans*

PROHIBITED



Yellow Floating Heart *Nymphoides peltata*

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<i>Dipsacus laciniatus</i>	Cut-leaf Teasel	4	(<i>Rhamnus frangula</i>)		
<i>Elaeagnus umbellata</i>	Autumn Olive	3	<i>Glyceria maxima</i>	Reed Manna Grass	10
<i>Euonymus alatus</i>	Burning Bush	9	<i>Iris pseudacorus</i>	Yellow Iris	10
<i>Euonymus fortunei</i>	Winter Creeper	9	<i>Lythrum salicaria</i>	Purple Loosestrife	10
<i>Euphorbia cyparissias</i>	Cypress Spurge	4	<i>Murdannia keisak</i>	Marsh Dewflower	10
<i>Euphorbia esula</i>	Leafy Spurge	6	<i>Phragmites australis</i>	Common Reed Grass	10
<i>Ficaria verna</i>	Lesser Celandine	6			
(<i>Ranunculus ficaria</i>)			AQUATIC PLANTS		
<i>Heracleum mantegazzianum</i>	Giant Hogweed	5	<i>Cabomba caroliniana</i>	Fanwort	11
<i>Humulus japonicus</i>	Japanese Hops	6	<i>Egeria densa</i>	Brazilian Waterweed	11
<i>Imperata cylindrica</i>	Cogon Grass	4	<i>Hydrilla verticillata</i>	Hydrilla/ Water Thyme	11
(<i>I. arundinacea</i> ,			<i>Hydrocharis morsus-ranae</i>	Frogbit	11
<i>Lagurus cylindricus</i>)			<i>Ludwigia hexapetala</i>	Uruguayan Primrose Willow	11
<i>Lepidium latifolium</i>	Broad-leaved Pepper-grass	3	(<i>L. grandiflora</i>)		
<i>Lespedeza cuneata</i>	Chinese Lespedeza	4	<i>Ludwigia peploides</i>	Floating Primrose Willow	11
<i>Ligustrum obtusifolium</i>	Border Privet	3	<i>Myriophyllum aquaticum</i>	Parrot-feather	11
<i>Lonicera japonica</i>	Japanese Honeysuckle	5	<i>Myriophyllum heterophyllum</i>	Broadleaf Water-milfoil Hybrid	11
<i>Lonicera maackii</i>	Amur Honeysuckle	3	<i>x M. laxum</i>		
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	6	<i>Myriophyllum spicatum</i>	Eurasian Water-milfoil	12
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	8	<i>Nymphoides peltata</i>	Yellow Floating Heart	12
<i>Lonicera x bella</i>	Fly Honeysuckle	4	<i>Potamogeton crispus</i>	Curly Pondweed	11
			<i>Trapa natans</i>	Water Chestnut	12



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