INVASIVE SPECIES CONTROL PLAN
ROCHESTER GAS AND ELECTRIC CORPORATION
CERTIFIED MAIN-5 (CM5) DISTRIBUTION LINE
TOWN OF CHILI,
MONROE COUNTY, NEW YORK

27 July 2016

Prepared for:

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1.0 Introduction

Rochester Gas and Electric Corporation (RG&E) proposes to develop the Certified Main-5 (CM5) natural gas distribution line (Project) in the Town of Chili, Monroe County, New York. Environmental Solutions & Innovations, Inc. (ESI) was retained by The DDS Companies (DDS) to provide professional environmental services for the Project. The proposed Project involves conveyance of natural gas through a 24-inch diameter pipeline from the Empire West gate station, in the Town of Chili at the south end of the proposed main, in a northeasterly direction where it will feed into an existing pipeline. The distribution line is approximately 5.5 miles long, and includes development of appurtenant access drives, staging areas, and construction laydown areas (See Figure 1).

New York State protected wetland resources occur along the proposed Project Right-of-Way (ROW). Potential threats to these resources includes introduction or spread of invasive plants during construction. Invasive plants are species nonnative to a particular ecosystem, and whose introduction causes or is likely to cause economic harm, or harm to human health (NYSDEC 2014). This Invasive Species Control Plan (ISCP) establishes measures to prevent introduction or spread of unwanted plants in New York State regulated wetland areas. The goal of this ISCP is to achieve no net gain in invasive species observed within New York State regulated wetland areas after construction.

2.0 Baseline Invasive Plant Species Survey

ESI conducted a baseline survey throughout the 5.5-mile Project area to identify existing populations of unwanted invasive plants 5 to 8 October and 15 to 16 December 2015. During these surveys, those invasive plant species appearing on the New York State Prohibited and Regulated Invasive Species Plants list (Table 1) were identified, documented, and mapped in the Project area, which includes the Project ROW and proposed temporary workspace (TWS).

Field surveys for invasive plants are completed using a meander search technique. Invasive plant stands are mapped using Trimble GeoXH GPS units with sub-meter accuracy. For purposes of this field survey, invasive plant stands are defined as areas where a plant identified in Table 1 represents greater than 1% areal cover. Extensive stands are mapped using an ‘entry and exit’ point within the linear study area. Smaller stands are mapped by locating the center point of the stand and defining a radius from the center point outward that encompasses the total area of coverage. Data for each

stand is recorded including the identification and the percent cover of each species. A single point is taken to map locations of individual plants. To ensure accuracy of mapped stands and locations, GPS code and carrier phase post-processed differential correction methodology is applied using Trimble's Pathfinder Office 4.1 software.

Table 1. New York State Prohibited and Regulated Invasive Species Plants

Scientific Name	Common Name
Acer platanoides	Norway maple
Acer pseudoplatanus	sycamore maple
Achyranthes japonica	Japanese chaff flower
Alliaria petiolata	garlic mustard
Ampelopsis brevipedunculata	porcelain berry
Anthriscus sylvestris	wild chervil
Aralia elata	Japanese angelica tree
Artemisia vulgaris	mugwort
Arthraxon hispidus	small carpet grass
Berberis thunbergii	Japanese barberry
Brachypodium sylvaticum	slender false brome
Cabomba caroliniana	fanwort
Cardamine impatiens	narrowleaf bittercress
Celastrus orbiculatus	oriental bittercress
Centaurea stoebe	spotted knapweed
Cirium arvense	Canada thistle
Clematis terniflora	Japanese virgin's bower
Cyrnanchum louiseae	black swallow-wort
Cynanchum rossicum	pale swallow-wort
Dioscorea polystachya	Chinese yam
Dipsacus laciniatus	cut-leaf teasel
Egeria densa	Brazilian waterweed
Elaeagnus umbellata	autumn olive
Euonymus alatus	burning bush
Euonymus fortunei	winter creeper
Euphorbia cyparissias	cypress spurge
Euphorbia esula	leafy spurge
Ficaria verna	lesser celandine
Frangula alnus	smooth buckthorn
Glyceria maxima	reed manna grass
Heracleum mantegazzianum	giant hogweed
Humulus japonicus	Japanese hops
Hydrilla verticillata	hydrilla / water thyme
Hydrocharis morsus-ranae	European frogbit
Imperata cylindrica	cogon grass
Iris pseudacorus	yellow iris
Lepidium latifolium	broad-leaved pepper-grass
Lespedeza cuneata	Chinese lespedeza
Ligustrum obtusifloium	border privet

Scientific Name	Common Name
Lonicera japonica	Japanese honeysuckle
Lonicera maackii	Amur honeysuckle
Lonicera morrowii	Morrow's honeysuckle
Lonicera tatarica	Tatarian honeysuckle
Lonicera x bella	fly honeysuckle
Ludwigia hexapetala	Urguayan primrose willow
Ludwigia peploides	floating primrose willow
Lysimachia vulgaris	garden loosestrife
Lythrum salicaria	purple loosestrife
Microstegium vimineum	Japanese stilt grass
Miscanthus sinensis	Chinese silver grass
Murdannia keisak	marsh dewflower
Myriophyllum aquaticum	parrot-feather
Myriophyllum heterophyllum	broadleaf water-milfoil
Myriophyllum heterophyllum x M. laxum	broadleaf water-milfoil hybrid
Myriophyllum spicatum	Eurasian water-milfoil
Nymphoides peltata	yellow floating heart
Oplismenus hirtellus	wavyleaf basketgrass
Persicaria perfoliata	mile-a-minute
Phellodendron amurense	Amur cork tree
Phragmites australis	common reed
Phyllostachys aurea	golden bamboo
Phyllostachys aureosulcata	yellow groove bamboo
Potamogeton crispus	curly pondweed
Pueraria montana	kudzu
Reynoutria japonica	Japanese knotweed
Reynoutria sachalinenus	giant knotweed
Reynoutria x bohemica	Bohemian knotweed
Rhamus catharica	common buckthorn
Robinia psuedoacacia	black locust
Rosa multiflora	multiflora rose
Rubus phoenicolasius	wineberry
Salix atrocinerea	gray florist's willow
Silphium perfoliatum	cup-plant
Trapa natans	water chestnut
Vitex rotundifolia	beach vitex

The results of the survey revealed 8 invasive plant stands within NYSDEC regulated resources encompassing 1.4 acres. Figure 2 presents the location of each invasive plants stand.

Infestations of the aforementioned invasive plants vary in size and percent cover. Common reed was the most abundant invasive plant, with 2 stands identified covering 0.59 acres, followed by purple loosestrife with 2 stands covering a total of 0.41 acres.

Other invasive plants found included common buckthorn, multiflora rose, and Morrow's honeysuckle.

Table 2 provides a summary of the invasive plants identified in New York State regulated resources during the field investigation and percent coverage for each species.

Table 2. Invasive plant summary for the Avangrid CM5 Distribution Line AOI, Monroe County, New York.

Species	Percent Cover	NYSDEC Wetland Identification	Acres in ROW/TWS
Lonicera morrowii	50	CI-5	0.00
Lythrum salicaria	50	CI-5	0.16
Lythrum salicaria	15	CI-5	0.25
Phragmites australis	80	CI-5	0.16
Phragmites australis	30	CI-5	0.43
Rhamnus cathartica	85	CI-5	0.29
Rhamnus cathartica	15	CI-5	0.06
Rosa multiflora	65	CI-5	0.03
		Total	1.38

3.0 Baseline Invasive Insect Species Survey

No formal survey was conducted along the project corridor for Emerald Ash Borer (*Agrilus planipennis*) (EAB) or Asian Longhorned Beetle (*Anoplophora glabripennis*) (ALB). However, ESI biologists did not otherwise observe identifiable signs of invasive insects while conducting environmental data collection investigations.

4.0 Proposed Control Measures

An Environmental Inspector (EI) will be employed throughout the duration of Project construction. The responsibilities of the EI include implementation of this ISCP. This ISCP includes procedures that will implement during three phases of the Project, as described in the following sections.

4.1 Pre-Construction Training

Construction personnel will be trained on identifying invasive plant and insect species as well as various relevant cleaning methods to be used on the Project prior to start of clearing and construction. The Environmental Inspector will be able to recognize all invasive species identified during the baseline surveys and be aware of the areas of infestation identified within the Project area. Contractor foremen will be trained to recognize the most common expected invasive species and inform their crews of their potential presence.

4.2 Controls During Construction

Procedures will implement to minimize the spread of invasive plant species during construction include:

a) Inspection and cleaning of equipment to prevent the potential introduction of invasive plant species from other areas or regions to the Project area. All vehicles, equipment, and materials will be inspected for, and cleaned of visible soils, vegetation, insects, and debris before bringing them to the Project. The cleaning method shall include, as applicable, brushing, scraping, and /or the use of compressed air to remove visible soils and vegetation. Any matter cleaned from equipment and material shall remain in the infested area. The specific locations of cleaning stations will be determined by the Environmental Inspector and the Construction Supervisor.

b) Minimize ground disturbances and vegetation removal as much as possible. The contractors shall be instructed to stay within access paths and work areas that are designated on the Project drawings.

c) To the extent practicable, avoid moving invasive plant-infested soils, gravel, rock, and other fill materials into relatively invasive plant-free locations. Soil, gravel, rock, and other fill material will come from invasive plant-free sources on the site, if such sources are available. Off-site fill materials also will come from visibly invasive-plant free sources.

d) Stabilize and re-vegetate disturbed sites using an appropriate upland/wetland native seed mix having a labeled weed content that does not exceed the weed content limitations for such seeds under Agriculture and Markets Law §138(A)(4). Regulated wetland and stream areas that are temporarily impacted during construction will be stabilized and restored in accordance with the Project-specific Stormwater Pollution Prevention Plan. Following construction activities, temporarily disturbed areas will be seeded with a native seed mix to reestablish vegetative cover in these areas.

e) If signs of EAB or ALB infestation are encountered, trees will be managed in accordance with NYSDEC firewood transport regulations and any applicable NYSDEC/NYSDAM quarantine orders/regulations.

Any herbicide spot treatments would be applied by a Certified Commercial Pesticide Applicator, Commercial Pesticide Technician, or a Private Pesticide Applicator (i.e., individuals that meet the requirements set forth in 6 NYCRR Part 325, Application of Pesticides), in accordance with NYSDEC approved herbicide and treatment measures.

5.0 Literature Cited

NYSDEC. 2014. 6 NYCRR Part 575, Prohibited and regulated invasive species. New York State Department of Environmental Conservation.

APPENDIX A
FIGURES

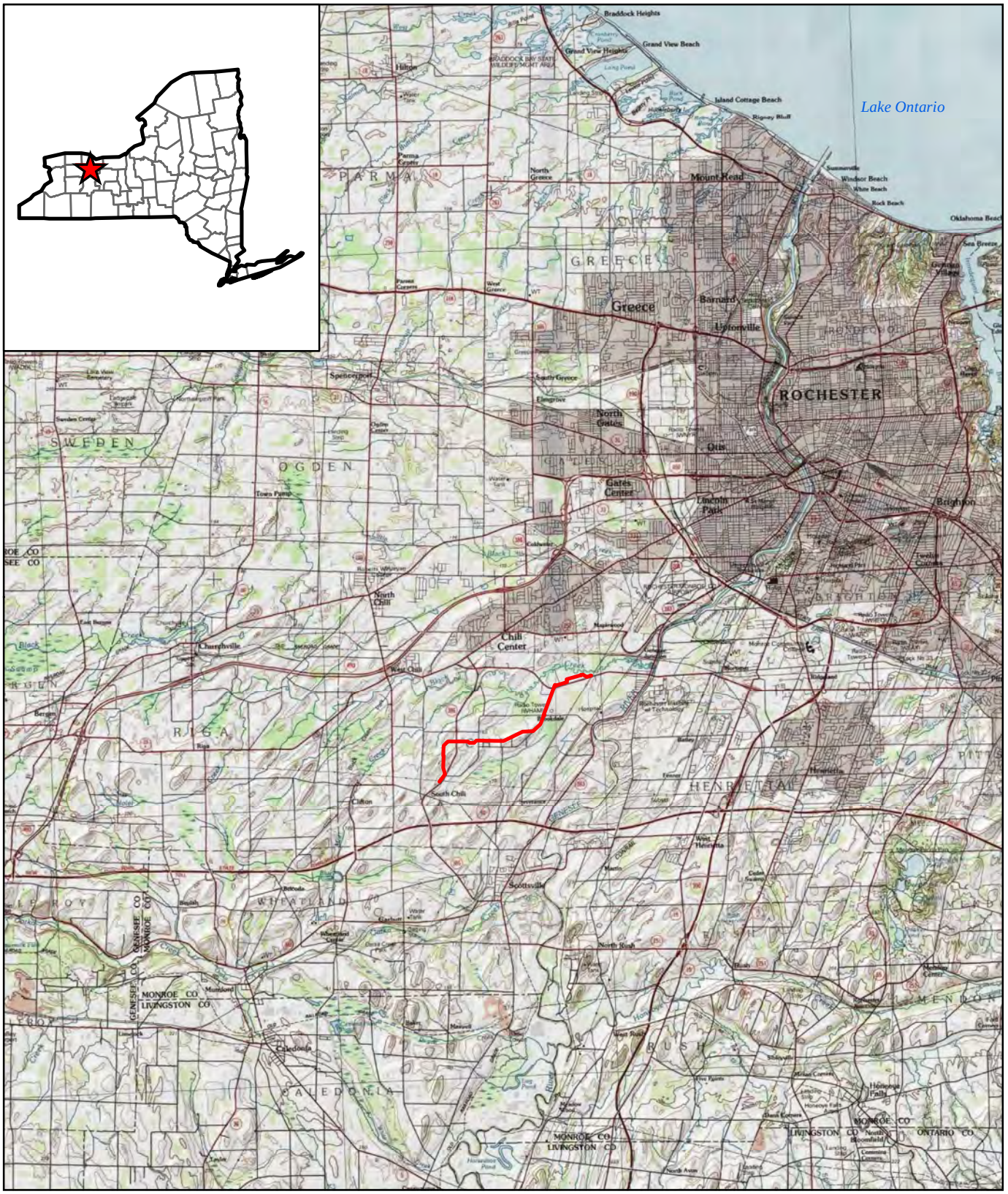

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Figure 1. Location of the Avangrid CM5 Pipeline Project AOI in Monroe County, New York.

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Base Map: USGS Topographic Map

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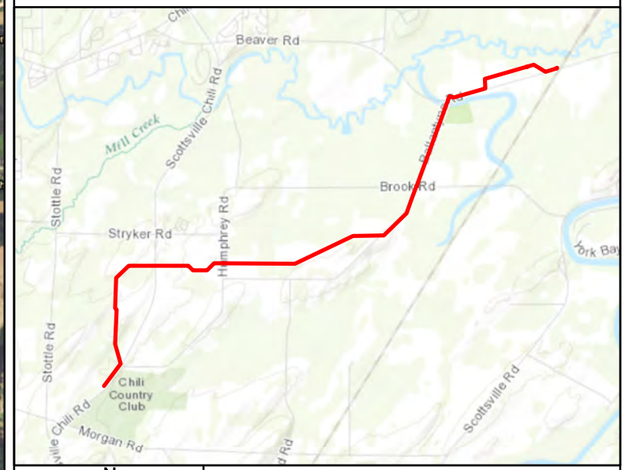
Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 1 of 6

Proposed Alignment



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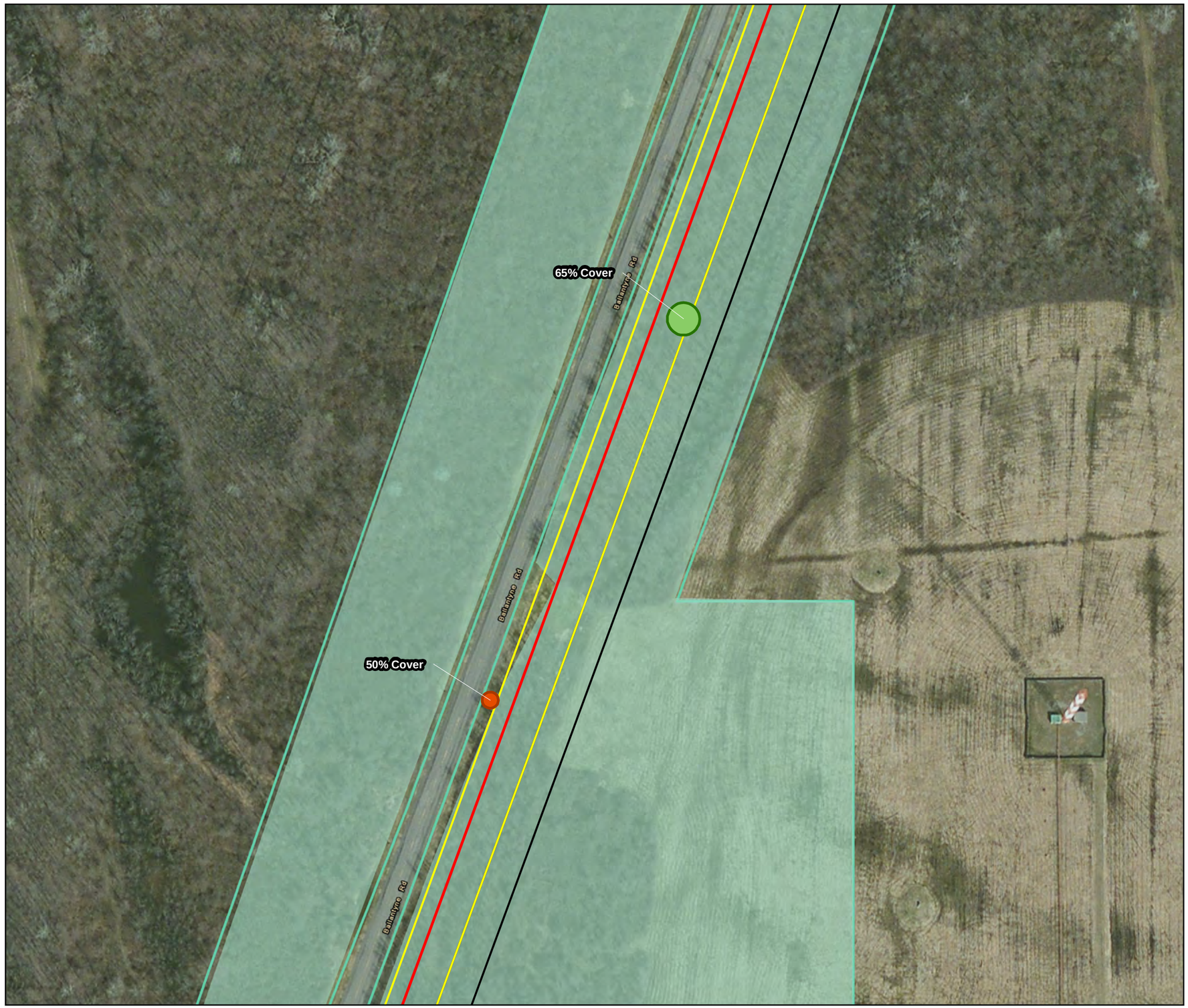


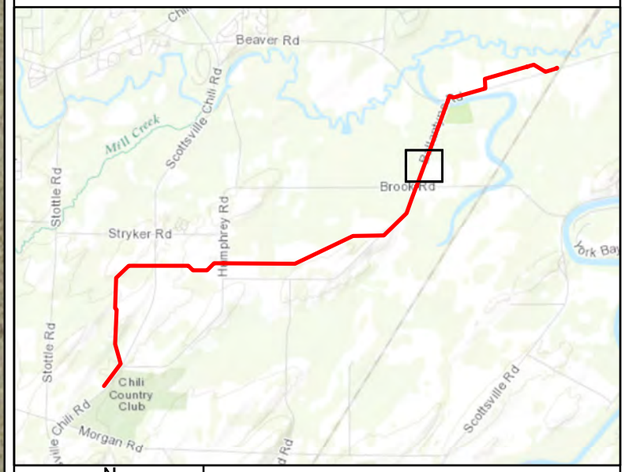
Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 2 of 6

- Proposed Alignment
- Right of Way (ROW)
- Temporary Work Space
- Field Delineated Wetland
- DEC Wetland Adjacent Area

Invasive Species

- *Lonicera morrowii*
- *Rosa multiflora*



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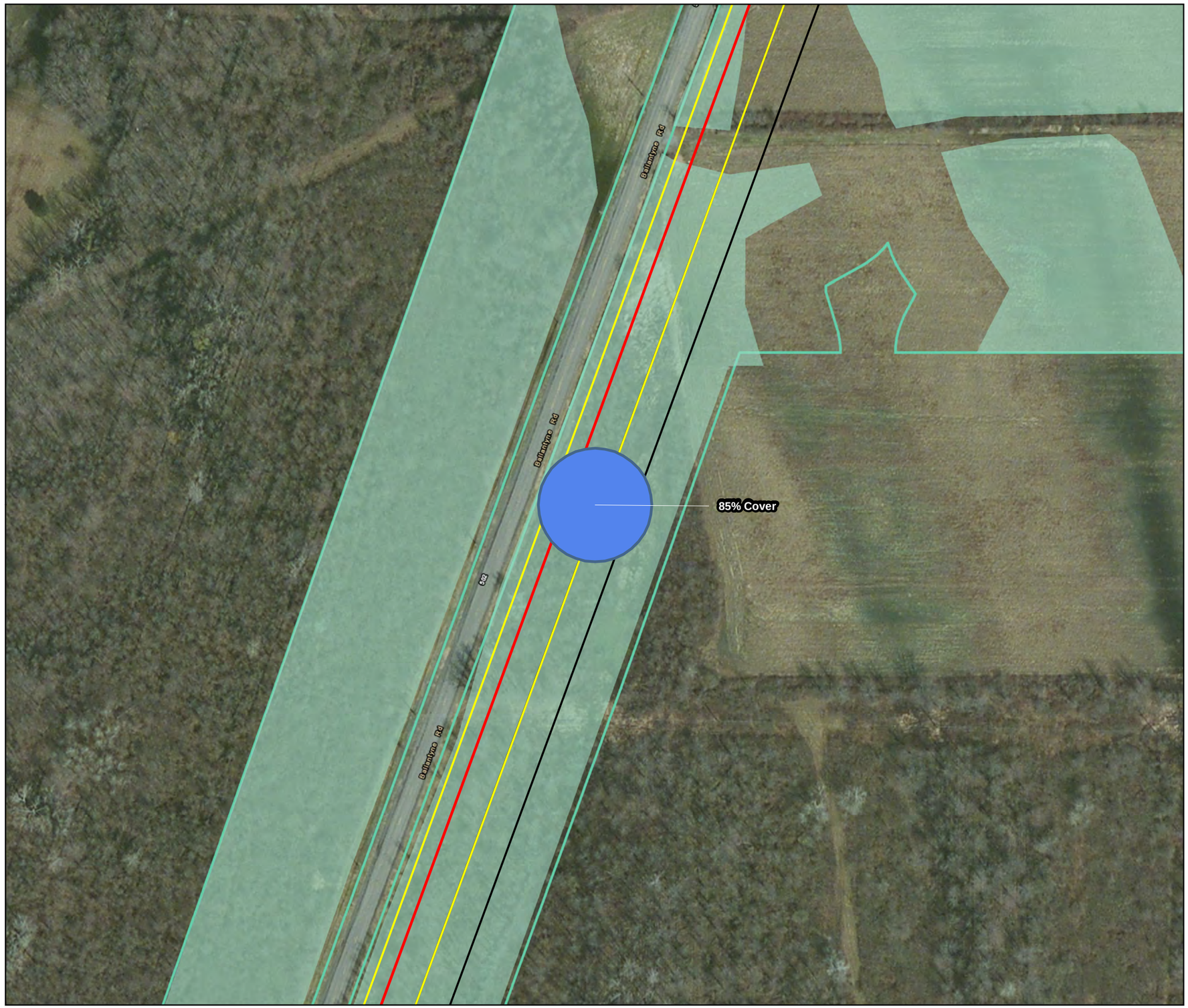


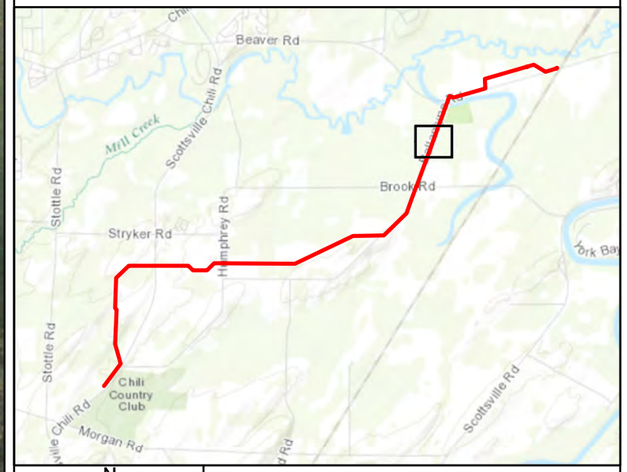
Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 3 of 6

- Proposed Alignment
- Right of Way (ROW)
- Temporary Work Space
- Field Delineated Wetland
- DEC Wetland Adjacent Area

Invasive Species

- *Rhamnus cathartica*



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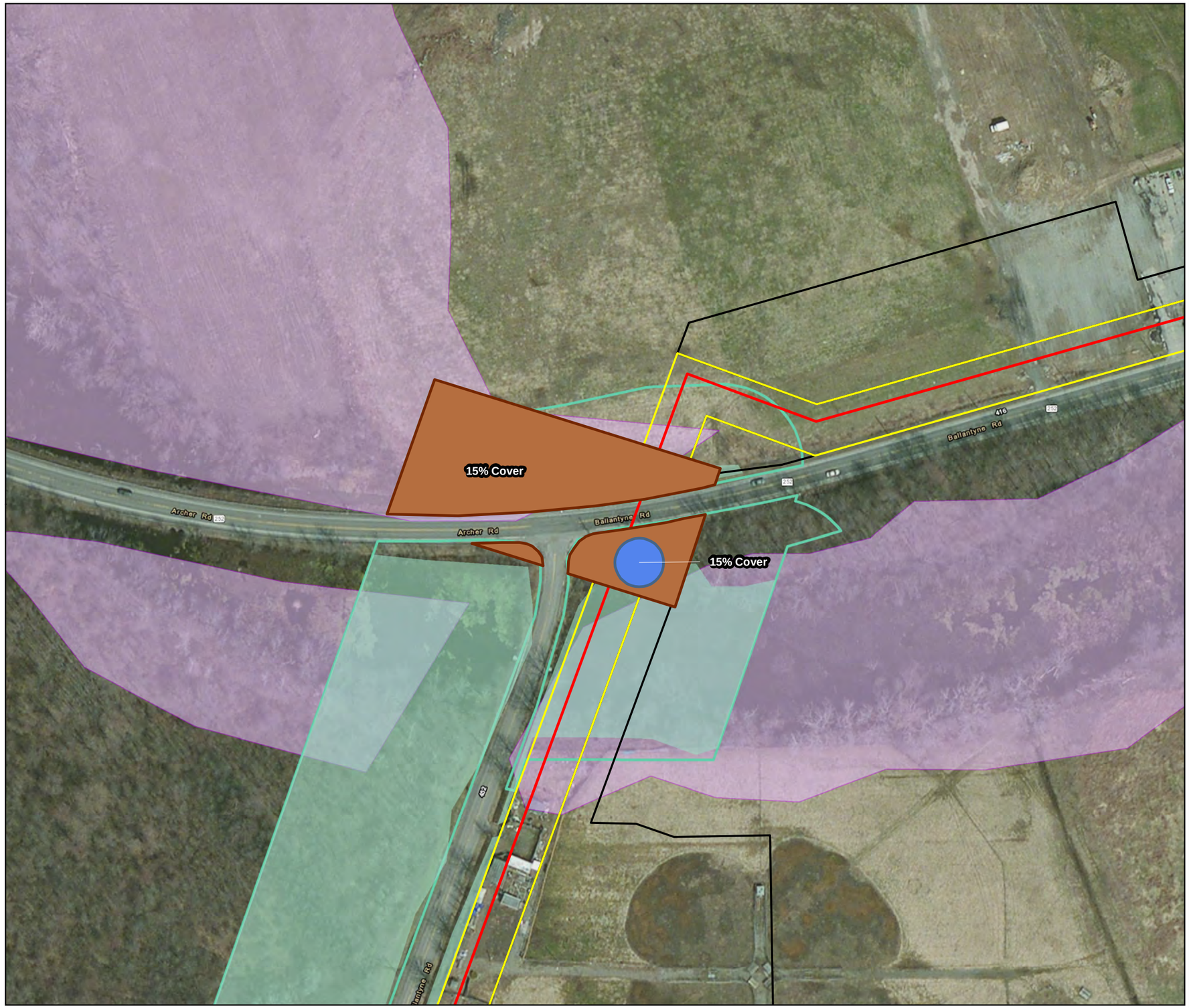


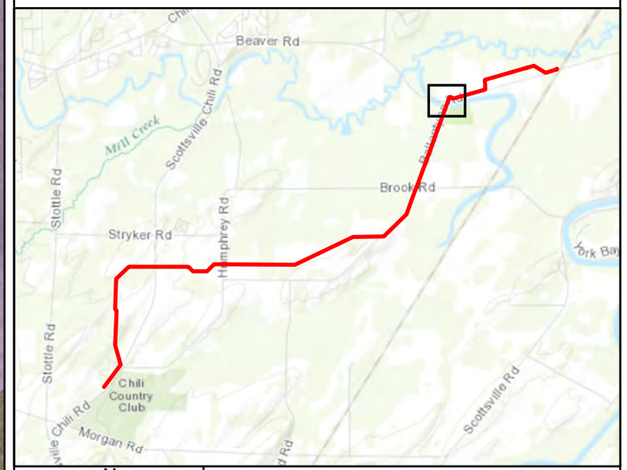
Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 4 of 6

- Proposed Alignment
- Right of Way (ROW)
- Temporary Work Space
- Field Delineated Wetland
- DEC Wetland
- DEC Wetland Adjacent Area

Invasive Species

- *Lythrum salicaria*
- *Rhamnus cathartica*



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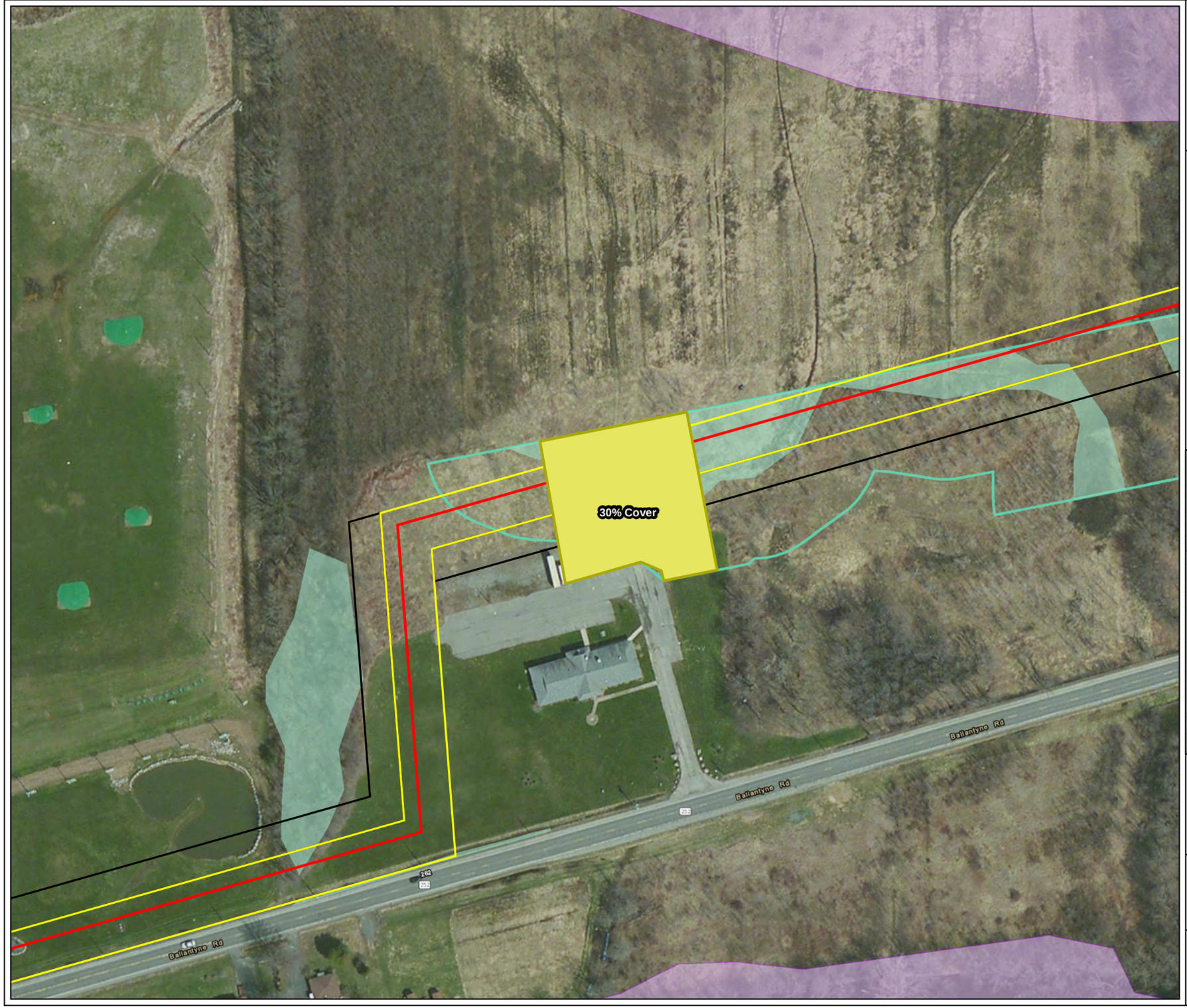

Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 5 of 6

- Proposed Alignment
- Right of Way (ROW)
- Temporary Work Space
- Field Delineated Wetland
- DEC Wetland
- DEC Wetland Adjacent Area

Invasive Species

- *Phragmites australis*

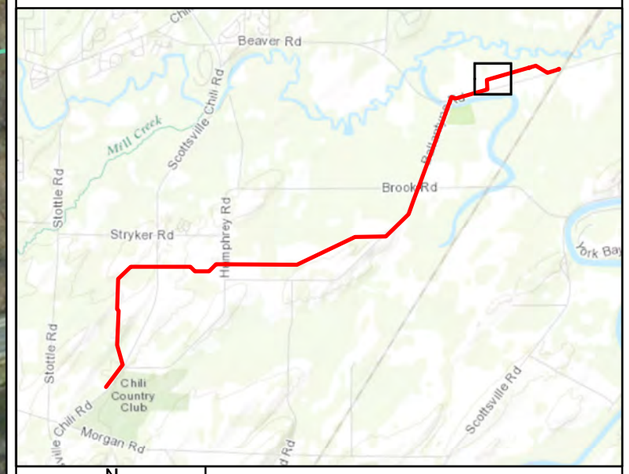

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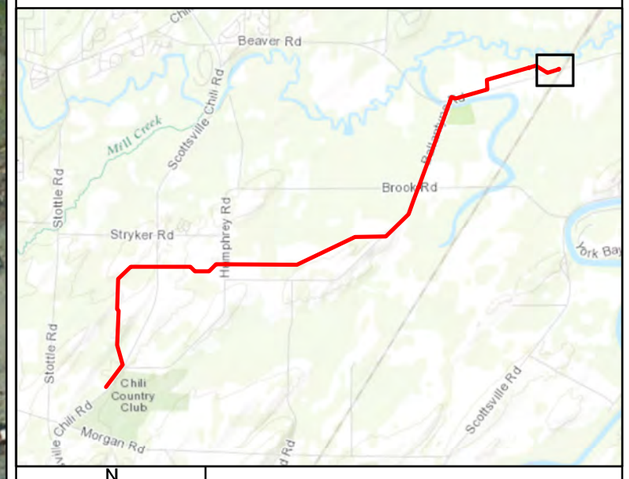
Figure 2. Invasive Species located within NYSDEC wetland and adjacent areas along the Avangrid CM5 Pipeline Project AOI, Monroe County, New York.

Map 6 of 6

- Proposed Alignment
- Right of Way (ROW)
- Temporary Work Space
- Field Delineated Wetland
- DEC Wetland
- DEC Wetland Adjacent Area

Invasive Species

- *Lythrum salicaria*
- *Phragmites australis*



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