



Lockport – Batavia Line #112

Rebuild Project

Appendix M

Invasive Species Management Plan

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Project Overview	1
1.2 Purpose and Goal	1
2.0 BASELINE INVASIVE SPECIES SURVEYS.....	2
2.1 Survey Protocol	2
2.2 Invasive Species Inventory Survey Results.....	3
3.0 GENERAL ADAPTIVE MANAGEMENT STRATEGY	3
3.1 Project-Specific List of Invasive Species	4
4.0 MANAGEMENT OF EXPANSION	4
5.0 POSSIBLE ADAPTIVE MANAGEMENT STRATEGIES.....	5
6.0 CONSTRUCTION BEST MANAGEMENT PRACTICES.....	5
6.1 Invasive Species Cleaning Stations	6

TABLES

Table 1. Invasive Species Protocol Descriptions.....	3
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ATTACHMENTS

Attachment A – Project Inventory Survey Results (2023)

Attachment B – Environmental Energy Alliance of New York (EEANY) *Best Management Practices for Preventing the Transportation of Invasive Species (Revision January 2015)*

Attachment C – Joint Proposal, Invasive Species Management Plan EM&CP Specifications

1.0 INTRODUCTION

This Invasive Species Management Plan (“ISMP”) was prepared for the construction of the Lockport – Batavia #112 Rebuild Project (the “Project”). The Article VII Application (Case No. 22-T-0654) for the Project was filed with the New York State Public Service Commission (“Commission”) on November 18, 2022, and the Order Adopting Joint Proposal (“JP”) for a Certificate of Environmental Compatibility and Public Need (“CEC&PN”) has been issued and became effective on September 24th, 2024. This plan was prepared in response to Certificate Condition 99 of the CEC&PN.

1.1 Project Overview

National Grid is proposing to rebuild its 115 kV Lockport-Batavia #112 single circuit transmission line (the “Existing Facility”) between the Lockport Substation in the City of Lockport, Niagara County and structure 211 in Alabama, Genesee County, New York (structures 175 – 187 are excluded from the rebuild project). The line to be rebuilt is approximately 20 miles in length and traverses (west to east) from the City/Town of Lockport through the Town of Royalton, Niagara County, NY to the Town of Alabama, Genesee County, NY. Approximately 3.5 miles of the #112 line is located in the NYSDEC Tonawanda Wildlife Management Area.

The Project proposes to replace the existing single-circuit steel tri-leg “aeromotor” towers with new single-circuit galvanized tubular steel pole structures. Single-circuit suspension structures will be directly embedded into native soils and single-circuit dead-end structures will be set upon foundations. In certain locations, Existing Line 112 shares double-circuit towers with Existing Line 111. In these locations, the existing double-circuit lattice tower structures will be replaced with galvanized tubular steel pole double-circuit structures set upon foundations.

The majority of the right-of-way (“ROW”) for the Project is located within existing, previously disturbed electric transmission ROW that has been maintained by National Grid for the past several decades pursuant to the company’s Commission-approved Transmission ROW Management Plan (“TROWMP”). The Project ROW is maintained generally in early successional vegetation (e.g., shrub/scrub, grassland/herbaceous, and emergent herbaceous wetlands) in addition to areas of barren land and developed land with areas of invasive plant species existing throughout the Project ROW.

During construction, trees and shrubs within the Project’s Limits of Disturbance (“LOD”) will be mowed or cleared as necessary to provide unimpeded and safe access to proposed structure work sites. Additional construction activities within the Project ROW include grading for workspaces around each new and existing structure location, construction of both permanent (gravel) and temporary (matting) access roads, installation of new structures and removal of the existing structures. Once construction is completed, the vegetation on the Project ROW will be managed in accordance with National Grid’s TROWMP.

1.2 Purpose and Goal

The purpose of this ISMP is to minimize the spread of existing invasive species of high concern arising from the construction, operation and/or maintenance of the Project (e.g., soil disturbance, vegetation clearing, transportation of materials and equipment, and landscaping/revegetation). The Joint Proposal includes ISMP specifications, which form the basis for a more detailed plan National Grid will submit as a compliance filing. The ISMP will identify invasive species in the Project area and describe the methods that will be used to minimize the spread or expansion of such species. This includes conducting a pre-construction baseline survey during the growing season; defining the Project’s limits of disturbance; preparing an Adaptive

Management Plan; employing best construction management practices; preventing species propagation and spread; performing post-construction surveying and monitoring; and filing a report with DPS, DEC and AGM discussing whether the objectives of the ISMP were achieved.

The implementation of this ISMP should result in minimal, if any, changes to the existing invasive species environment due to Project construction proposed within the existing maintained ROW. Implementing this ISMP may reduce populations of certain invasive species in existing areas. However, construction activities have the potential to introduce new invasive species to the Project LOD and spread existing invasive species to new areas where they are not currently established (both on and off the Project).

This ISMP will serve as guidance for construction personnel to aid in the identification and application of practices to restrict the spread or establishment of invasive species of special concern. This ISMP was created in accordance with the current Environmental Energy Alliance of New York (“EEANY”) *Best Management Practices for Preventing the Transportation of Invasive Species* (EEANY January 2015 BMPs) (provided as Attachment B) developed by New York State utilities in consultation with the New York State Department of Environmental Conservation (“NYSDEC”), and National Grid’s TROWMP.

2.0 BASELINE INVASIVE SPECIES SURVEYS

2.1 Survey Protocol

On behalf of Niagara Mohawk Power Corporation (d/b/a National Grid), Fisher Associates’ Environmental Scientists conducted an invasive species inventory between August 6 and October 2, 2019. The objective was to identify the presence and abundance of invasive plant species within the Project Study Limits defined to support the Lockport-Batavia 112 Rebuild Project (Project). The Project Study Limits at the time consisted of a 445.14-acre area, which encompassed potential construction and limits of disturbance required for the Project. This area was generally from the Lockport-Batavia 112 overhead transmission line Structure 1-2 in Lockport, New York to Structure 210.5 in Alabama, New York. An additional invasive species inventory was conducted on June 16, 2020, for additional Project Study Limits consisting of another 1.50-acres. These were from where the original study limits ended at Structure 210.5 to just past Structure 211 in Alabama, New York. An additional invasive species inventory was conducted on November 12 and 13, 2020 for an extension of the existing Project Study Limits. This extension was to expand the Project Study Limits between relocation Structures 143 and 156 northwards along Lewiston Road to ensure enough land was reviewed for Segment 4 Relocation. An additional invasive species inventory was conducted between August 9 and August 23, 2023, which surveyed all the way from Structure 1 to 173.

According to the NYSDEC, the definition of an invasive species is “a species that is non-native to the ecosystem under consideration; and whose introduction causes or is likely to cause economic harm or harm to human health.” The NYSDEC has developed regulations to help control invasive species throughout the state by reducing their introduction and spread. Under Title 6 NYCRR Part 575: Prohibited and Regulated Invasive Species, the NYSDEC has identified and classified invasive species that will be regulated statewide. On September 10, 2014, the NYSDEC released a list of Prohibited and Regulated Invasive Species (under 6 NYCRR Part 575) of plants and animals for New York State.

Using a sub-meter accurate Global Positioning System, Fisher, field biologists surveyed the entire Project, including off-ROW access roads and LOD for the presence/absence and abundance of invasive plant species using inter-structure distances as inventory plots. Pursuant to the CEC&PN, the Certificate Holder is not required to survey those parts of the ROW that the EM&CP shows will not be disturbed as part of construction. For areas/spans that are going to be disturbed, each structure span was inventoried using a walking/meander survey approach, with the following qualitative observations recorded: stage, abundance, and distribution of

the species. Qualitative observations were also made for the potential spread from off-ROW areas and access roads. These observations were recorded according to the categories identified in Table 1 below.

Table 1. Invasive Species Protocol Descriptions

Abundance	Distribution
T = Trace (<1%)	IO = Infrequent Occurrence
L = Low (1-5%)	ET = Evenly Throughout
M = Medium (5 – 25%)	LP = Localized Patches
H = High (>25%)	FS = Frequent Stands
	DT = Densely Throughout

2.2 Invasive Species Inventory Survey Results

The results of the updated inventory surveys are presented in Attachment A. In summary, 12 of the invasive plant species listed in the Part 575 List were observed during the Project ROW baseline survey. The most frequently observed species that are ubiquitous to the Project LOD include:

- purple loosestrife (*Lythrum salicaria*)
- spotted knapweed (*Centaurea stoebe*)
- common reed (*Phragmites australis*)
- Canada thistle (*Cirsium arvense*)
- cut-leaf teasel (*Dipsacus laciniatus*)

Areas where invasive species were found in higher densities include Segment 1, which had higher densities of common reed between structures 3 and 6. Purple loosestrife, cut leaf teasel and spotted knapweed were found in higher densities in segment 2 between structures 6 and 119. Morrow's honeysuckle was found in high densities in segment 3 between structures 132 and 135 and in high densities in segment 4 between structures 151 and 155. The results of the updated survey are indicated in Attachment A.

3.0 GENERAL ADAPTIVE MANAGEMENT STRATEGY

The initial ISMP for the construction phase of the Project shall include the following components in a Generic Adaptive Management Strategy (Generic Strategy) prepared in consultation with the NYSDPS, NYSDEC and the New York State Department of Agriculture and Markets (“NYSDAM”) (the Agencies). At a minimum, the ISMP shall include:

- Development of a project-specific list of all species included in the Prohibited Invasive Species pursuant to 6 NYCRR Part 575. The purpose of this regulation is to help control invasive species by reducing new infestations and spread of existing populations.

- Management of “expansion”: Focuses only on species of high concern (i.e., Japanese Knotweed, Phragmites, and Purple Loosestrife)
 - Invasive species of high concern that have expanded, under the terms specified in Section 4.0, must be controlled to equal to or less than their original density.
 - Invasive species of high concern that have been newly identified must be eradicated.
- In consultation with the Agencies, a discussion of possible adaptive management strategies and control measures (e.g., eradication), and where and when such measures may be required if expansion caused by construction activities is identified. Management strategies will consider invasive species’ phenology, control methodology (e.g., mechanical or chemical control techniques), and control objectives.
- Discussion of conditions that may necessitate additional post-construction monitoring and the extent and duration of such extended monitoring considering ongoing TROWMP practices.

A post-construction survey of the Prohibited Invasive Species pursuant to 6 NYCRR Part 575, using the pre-application baseline invasive species survey (and the updated survey during EM&CP development) protocols, shall be conducted in all jurisdictional areas (as defined in the EEANY March 2015 BMPs) after the second full growing season from final Stormwater Pollution Prevention Plan signoff, indicating that final stabilization has been reached. If the post-construction monitoring report identifies expansion, as defined in Section 4.0, of those species of high concern identified during the field surveys as a result of the Project, the Agencies will review the final report. NYSDPS, in consultation with NYSDAM and NYSDEC, will then determine whether the goals of the ISMP have been achieved or, if applicable, whether a Final Adaptive Management Strategy must be implemented.

3.1 Project-Specific List of Invasive Species

The invasive species found within the Lockport-Batavia 112 Rebuild Project can be seen in *Attachment A*.

4.0 MANAGEMENT OF EXPANSION

Because of the linear nature of the Project ROW, National Grid, in consultation with the Agencies, proposes to evaluate expansion of existing invasive species of high concern (Japanese Knotweed, Phragmites, and Purple Loosestrife) using both aerial measures of size, and spread of species of high concern from one span of the Project ROW into another span (i.e., the portion of the ROW between transmission structures).

Japanese Knotweed, Phragmites, and Purple Loosestrife are considered invasive species of high concern in New York State for the following reasons:

- Japanese knotweed (*Reynoutria japonica*): Japanese knotweed spreads rapidly and forms dense thickets that outcompete native vegetation. Its extensive root system makes it difficult to control and can damage infrastructure like roads and buildings.

- Phragmites “Common Reed” (*Phragmites australis*): Phragmites can form dense, homogenous stands that exclude native plants and degrade habitats. It can also alter hydrology and increase fire risk in wetlands.
- Purple loosestrife (*Lythrum salicaria*): Purple loosestrife invades wetlands, forming dense stands that displace native plants and reduce biodiversity. It can also alter water flow and degrade wildlife habitats.

These invasive species pose significant threats to New York’s ecosystems by reducing biodiversity, altering habitats, and outcompeting native species. A baseline survey will be conducted to determine what segments of the project house these invasive species of high concern. Then once the baseline survey has been concluded, managing these species can occur and limit any further expansion to take place.

5.0 POSSIBLE ADAPTIVE MANAGEMENT STRATEGIES

If the post-construction survey identifies any expansion of species of high concern or a new occurrence of a species of high concern, the following methods and techniques, or a combination of them, will be considered to control the spread of the invasive species:

- Physical: Pulling, Grubbing, Mowing, Cutting, Mulching, etc.
- Chemical: Herbicide treatment
- Biological: Natural Controls, Modification of existing management practices, etc.

In consultation with agencies, National Grid will participate in a discussion of possible adaptive management strategies and control measures and where and when they may be required if the post-construction survey identifies either expansion of species of high concern on the Project ROW caused by construction or any newly identified species of high concern. There will be a discussion of conditions that may necessitate additional post-construction monitoring and the extent and duration of such extended monitoring considering ongoing TROWMP practices. A Final Adaptive Management Strategy will be discussed with the agencies prior to implementation.

6.0 CONSTRUCTION BEST MANAGEMENT PRACTICES

Construction Best Management Practices (“BMPs”) shall be implemented for all invasive species within not only jurisdictional areas, but all of the Project LOD. Construction BMPs will be consistent with the EEANY March 2015 BMPs and will include, but not be limited to, such items as:

- Contractor / sub-contractor / employee training on cleaning and other invasive species management procedures;
- Inspection of construction materials and equipment;
- Minimizing ground disturbance and invasive species infested areas;

- Proper clearing and disposal practices (i.e., cut and leave in infested areas or dispose off site in landfill-incinerator or approved disposal site);
- Equipment cleaning;
- The following practices for handling wood waste: a) trees will be either mulched, and/or used for stabilization on the property or left on site per agreement between the Certificate Holder and the landowner; b) trees may be transported off the property in conformance with all then current regulations for the transport of cut trees; and c) root material and or mulch may be transported off site pursuant to Certificate/EM&CP requirements.

Invasive species propagation shall be prevented by, among other stated techniques, the following:

- Preventing invasive species from spreading through contact with equipment or vehicles by preparing the Project travel routes with any practical combination of matting, burial of invasive species, clean fill cover, or invasive species eradication;
- Applying a layer of wood chips on the access roads to separate vehicles from contact with invasive species;
- Providing cleaning stations for equipment and vehicles whenever leaving invasive species infested areas within the Project ROW;
- Ensuring that equipment arrives and leaves the Project ROW free of invasive species; and/or,
- Other mutually agreeable practices.

6.1 Invasive Species Cleaning Stations

To limit the amount of post-construction waste as required by item 3 above, cleaning stations will be kept to the minimum necessary to control and contain the soil, debris and vegetation to be cleaned from the construction equipment. Where cleaning stations are near highways or areas where mating can be reasonably transported to the Project LOD, the cleaning station may be constructed by placing matting over filter fabric. Straw bales will only be used for containment when there is the risk of the cleaned material being dispersed due to wind or other environmental factors. In isolated areas or areas where it is not practical to transport matting to the Project ROW, cleaning may occur at the edge of the infested area with no formal “cleaning station” provided that all matter cleaned from the equipment remains in the infested area. The general location of all cleaning stations will be shown on the EM&CP drawings with the final location being determined by the Construction Field Supervisor and the Environmental Monitor. All cleaning locations will be marked with signage saying, “Clean Equipment of Invasive Species at This Location.”

Attachment A – Project Baseline Survey Results

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral		Herbaceous Terrestrial										Tree and Shrubs				Aquatic Plants			Vines		
				ISHC					ISSC					Other DEC Listed Invasive Species									
		Abundance		Distribution		Abundance		Distribution		Abundance		Distribution		Abundance		Distribution		Abundance		Distribution			
		Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution		
Str. 1 to Str. 2	No	Beach Vitex (Vitex Rotundifolia)		Bohemian Knotweed (Reynoutria x bohemica)																			
Str. 2 to Str. 3	No	Common Reed (Phragmites australis)		Garden Loosetrife (Lythrum vulgaris)		Black Swallow-wort (Cynanchum laeve)		Broad-leaved Pepper-grass (Lepidium latifolium)		Canada Thistle (Cirsium arvense)		Chinese Leaved Zea (Zea cuneata)		Chinese Silver Grass (Miscanthus sinensis)		Chinese Yam (Dioscorea polystachya)		Cogon Grass (Imperata cylindrica)		Cup-Plant (Siphium perfoliatum)		Cut-Leaf Teasel (Dipsacus laciniatus)	
Str. 3 to Str. 4	X	Abundance	H	L		Yellow Iris (Iris pseudacorus)		Black Swallow-wort (Cynanchum laeve)		Canada Thistle (Cirsium arvense)		Chinese Leaved Zea (Zea cuneata)		Chinese Silver Grass (Miscanthus sinensis)		Chinese Yam (Dioscorea polystachya)		Cogon Grass (Imperata cylindrica)		Cup-Plant (Siphium perfoliatum)		Cut-Leaf Teasel (Dipsacus laciniatus)	
Str. 4 to Str. 5	X	Abundance	H	M		Purple Loosestrife (Lythrum salicaria)		Black Swallow-wort (Cynanchum laeve)		Canada Thistle (Cirsium arvense)		Chinese Leaved Zea (Zea cuneata)		Chinese Silver Grass (Miscanthus sinensis)		Chinese Yam (Dioscorea polystachya)		Cogon Grass (Imperata cylindrica)		Cup-Plant (Siphium perfoliatum)		Cut-Leaf Teasel (Dipsacus laciniatus)	
Str. 5 to Str. 6	X	Abundance	M	M		Purple Loosestrife (Lythrum salicaria)		Black Swallow-wort (Cynanchum laeve)		Canada Thistle (Cirsium arvense)		Chinese Leaved Zea (Zea cuneata)		Chinese Silver Grass (Miscanthus sinensis)		Chinese Yam (Dioscorea polystachya)		Cogon Grass (Imperata cylindrica)		Cup-Plant (Siphium perfoliatum)		Cut-Leaf Teasel (Dipsacus laciniatus)	
Str. 6 to Str. 7	X	Abundance	L	M		Yellow Iris (Iris pseudacorus)		Black Swallow-wort (Cynanchum laeve)		Canada Thistle (Cirsium arvense)		Chinese Leaved Zea (Zea cuneata)		Chinese Silver Grass (Miscanthus sinensis)		Chinese Yam (Dioscorea polystachya)		Cogon Grass (Imperata cylindrica)		Cup-Plant (Siphium perfoliatum)		Cut-Leaf Teasel (Dipsacus laciniatus)	
Str. 7 to Str. 8	X	Abundance	L	M		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 8 to Str. 9	X	Abundance	T	T		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 9 to Str. 10	X	Abundance	L	T		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 10 to Str. 11	X	Abundance	T	IO		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 11 to Str. 12	X	Abundance	M	M		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 12 to Str. 13	X	Abundance	T	M		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 13 to Str. 14	X	Abundance	—	—		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	
Str. 14 to Str. 15	X	Abundance	—	—		Garlic Mustard (Alliaria petiolata)		Giant Hogweed (Heracleum mantegazzianum)		Golden Bamboo (Phyllostachys aurea)		Japanese Chaff Flower (Achyranthes japonica)		Japanese Hops (Humulus japonicus)		Japanese Silt Grass (Microstegium vimineum)		Japanese Virgin's Bower (Clematis terniflora)		Leafy Spurge (Euphorbia esula)		Lesser Celandine (Ficaria verna)	

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)																									
Span/ Location (Structure Numbers)	Key	Emergent and Littoral		Herbaceous Terrestrial										Tree and Shrubs		Aquatic Plants			Vines						
				ISHC					ISSC																
		Other DEC Listed Invasive Species																							
Str. 15 to Str. 16	X	Abundance		Beach Vitex (Vitex Rotundifolia)	Bohemian Knotweed (Reynoutria x bohemica)																				
		Distribution		Common Reed (Phragmites australis)	Canada Thistle (Cirsium arvense)																				
Str. 16 to Str. 17	X	Abundance		Garden Loosestrife (Lysimachia vulgaris)	Chinese Lespedeza (Lespedeza cuneata)																				
		Distribution		Giant Knotweed (Reynoutria sachalinensis)	Chinese Silver Grass (Miscanthus sinensis)																				
Str. 17 to Str. 18	X	Abundance	T	Japanese Knotweed (Reynoutria japonica)	Chinese Yam (Dioscorea polystachya)																				
		Distribution	IO	Marsch Dewflower (Murdannia keisak)	Cogon Grass (Imperata cylindrica)																				
Str. 18 to Str. 19	X	Abundance	L	Purple Loosestrife (Lythrum salicaria)	Cup-Plant (Siphium perfoliatum)																				
		Distribution	IO	Yellow Iris (Iris pseudacorus)	Cut-J-Leaf Teasel (Dipsacus laciniatus)																				
Str. 19 to Str. 20	X	Abundance	L	Black Swallow-wort (Cynanchum louiseae)	Broad-leaved Pepper-grass (Lepidium latifolium)																				
		Distribution	IO		Canadian Rampion (Phyteuma spicatum)																				
Str. 20 to Str. 21	X	Abundance	L		Common Reed (Phragmites australis)																				
		Distribution	IO		Common Reed (Phragmites australis)																				
Str. 21 to Str. 22	X	Abundance	L		Common Reed (Phragmites australis)																				
		Distribution	LP		Common Reed (Phragmites australis)																				
Str. 22 to Str. 23	X	Abundance	M		Common Reed (Phragmites australis)																				
		Distribution	LP		Common Reed (Phragmites australis)																				
Str. 23 to Str. 24	X	Abundance	L		Common Reed (Phragmites australis)																				
		Distribution	LP		Common Reed (Phragmites australis)																				
Str. 24 to Str. 25	X	Abundance	T		Common Reed (Phragmites australis)																				
		Distribution	IO		Common Reed (Phragmites australis)																				
Str. 25 to Str. 26	X	Abundance	L		Common Reed (Phragmites australis)																				
		Distribution	LP		Common Reed (Phragmites australis)																				
Str. 25 to Str. 27	X	Abundance	T		Common Reed (Phragmites australis)																				
		Distribution	IO		Common Reed (Phragmites australis)																				
Str. 27 to Str. 28	X	Abundance	T		Common Reed (Phragmites australis)																				
		Distribution	IO		Common Reed (Phragmites australis)																				

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial												Tree and Shrubs	Aquatic Plants	Vines	
			ISHC			ISSC			Other DEC Listed Invasive Species									
			Abundance	Distribution		Abundance	Distribution		Abundance	Distribution		Abundance	Distribution					
Str. 41 to Str. 42	x	Bohemian Knotweed (<i>Rheum rhabarbarum</i>)	Beach Vitex (Vitex Rotundifolia)			Common Reed (Phragmites australis)			Chinese Silver Grass (Miscanthus sinensis)			Cypress Spurge (Euphorbia cyathophylla)			Pale Swallow-wort (Cynanchum louiseae)			
Str. 42 to Str. 43	x	Abundance	Canada Thistle (Cirsium arvense)			Giant Knotweed (<i>Rheum rhabarbarum</i>)			Chinese Tasselgrass (Lespidea cuneata)			Garlic Mustard (<i>Alliaria petiolata</i>)			Japanese Honeysuckle (<i>Lonicera japonica</i>)			
Str. 43 to Str. 44	x	Abundance	L			Giant Knotweed (<i>Rheum rhabarbarum</i>)			Cogon Grass (Imperata cylindrica)			Giant Hogweed (Heracleum mantegazzianum)			Leafy Spurge (Euphorbia cyathophylla)			
Str. 44 Str. 45	x	Abundance	M	T	L	Golden Bamboo (Phyllostachys aurea)			Cup-Plant (Silphium perfoliatum)			Golden Bamboo (Phyllostachys aurea)			Japanese Chaff Flower (Achyranthes japonica)			
Str. 45 to Str. 46	x	Abundance	FS	IO	LP	Japanese Hops (Humulus japonicus)			Cut-leaf Teasel (Dipsacus laciniatus)			Japanese Silt Grass (Microstegium vimineum)			Japanese Virgin's Bower (Chenopodium terniflorum)			
Str. 46 to Str. 47	x	Abundance	H	T	L	Japanese Virgin's Bower (Chenopodium terniflorum)			Cypress Spurge (Euphorbia cyathophylla)			Japanese Virgin's Bower (Chenopodium terniflorum)			Lesser Celandine (Ficaria verna)			
Str. 47 to Str. 48	x	Abundance	ET	IO	LP	Leafy Spurge (Euphorbia esula)			Garlic Mustard (<i>Alliaria petiolata</i>)			Leafy Spurge (Euphorbia esula)			Morrow's Honeysuckle (<i>Lonicera morrowii</i>)			
Str. 48 to Str. 49	x	Abundance	M			Lesser Celandine (Ficaria verna)			Giant Hogweed (Heracleum mantegazzianum)			Mugwort (Artemisia vulgaris)			Narrowleaf Bittercress (Cardamine impatiens)			
Str. 49 to Str. 50	x	Abundance	L	L	T	Morrow's Honeysuckle (<i>Lonicera morrowii</i>)			Giant Hogweed (Heracleum mantegazzianum)			Narrowleaf Bittercress (Cardamine impatiens)			Amur Cork Tree (Phellodendron amurense)			
Str. 50 to Str. 51	x	Abundance	LP	ET	IO	Wild Chervil (Anthriscus sylvestris)			Goldenrod (Solidago canadensis)			Amur Honeysuckle (<i>Lonicera maackii</i>)			Autumn Olive (Elaeagnus umbellata)			
Str. 51 to Str. 52	x	Abundance	L	H	L	Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Autumn Olive (Elaeagnus umbellata)			Black Locust (Robinia pseudoacacia)			
Str. 52 to Str. 53	x	Abundance	LP	ET	LP	Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Black Locust (Robinia pseudoacacia)			Border Privet (Ligustrum obtusifolium)			
Str. 53 to Str. 54	x	Abundance	L			Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Border Privet (Ligustrum obtusifolium)			Burning Bush (Euonymus alatus)			
		Distribution				Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Burning Bush (Euonymus alatus)			Common Buckthorn (Rhamnus cathartica)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Common Buckthorn (Rhamnus cathartica)			Fly Honeysuckle (<i>Lonicera x bella</i>)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Fly Honeysuckle (<i>Lonicera x bella</i>)			Gray Florist's Willow (Salix atrocinerea)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Gray Florist's Willow (Salix atrocinerea)			Japanese Angelica Tree (Aralia elata)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Japanese Angelica Tree (Aralia elata)			Japanese Barberry (Berberis thunbergii)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Japanese Barberry (Berberis thunbergii)			Multiflora Rose (Rosa multiflora)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Multiflora Rose (Rosa multiflora)			Norway Maple (Acer platanoides)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Norway Maple (Acer platanoides)			Smooth Buckthorn (Rhamnus frangula)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Smooth Buckthorn (Rhamnus frangula)			Sycamore Maple (Acer pseudoplatanus)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Sycamore Maple (Acer pseudoplatanus)			Tartarian honeysuckle (<i>Lonicera tatarica</i>)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Tartarian honeysuckle (<i>Lonicera tatarica</i>)			Wineberry (Rubus phoenicolasius)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Wineberry (Rubus phoenicolasius)			Winter Creeper (Euonymus fortunei)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Winter Creeper (Euonymus fortunei)			Brazilian Waterweed (Egeria densa)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Brazilian Waterweed (Egeria densa)			Broadleaf Water-milfoil (Myriophyllum heterophyllum)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Broadleaf Water-milfoil (Myriophyllum heterophyllum)			Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x <i>M. laxum</i>)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x <i>M. laxum</i>)			Curly Pondweed (Potamogeton crispus)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Curly Pondweed (Potamogeton crispus)			Eurasian Water-milfoil (Myriophyllum spicatum)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Eurasian Water-milfoil (Myriophyllum spicatum)			European Frogbit (Hydrocharis mors-rupestris)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			European Frogbit (Hydrocharis mors-rupestris)			Fawnwort (Cabomba caroliniana)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Fawnwort (Cabomba caroliniana)			Parrot-feather (Myriophyllum aquaticum)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Parrot-feather (Myriophyllum aquaticum)			Floating Primrose Willow (Ludwigia peploides)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Floating Primrose Willow (Ludwigia peploides)			Japanese Honeysuckle (<i>Lonicera japonica</i>)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Japanese Honeysuckle (<i>Lonicera japonica</i>)			Kudzu (Pueraria montana)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Kudzu (Pueraria montana)			Milk-a-minute Weed (Persicaria perfoliata)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Milk-a-minute Weed (Persicaria perfoliata)			Oriental Bittersweet (Celastrus orbiculatus)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Oriental Bittersweet (Celastrus orbiculatus)			Porcelain Berry (Ampelopsis brevipedunculata)			
						Yellow Groove Bamboo (Phyllostachys aureosulcata)			Groundsel (Senecio vulgaris)			Porcelain Berry (Ampelopsis brevipedunculata)			Uruguayan Primrose Willow (Ludwigia hexapetala)			

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)									
Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial				Tree and Shrubs	Aquatic Plants	Vines
			ISHC	ISSC	Other DEC Listed Invasive Species				
Str. 67 to Str. 68	X	Beach Vitex (Vitex Rotundifolia) Bohemian Knotweed (Reynoutria x bohemica)							
Str. 68 to Str. 69	X	Common Reed (Phragmites australis) Garden Loosestrife (Lythrum vulgaris) Giant Knotweed (Reynoutria sachalinensis)							
Str. 69 to Str. 70	X	Japanese Knotweed (Reynoutria japonica)	T						
Str. 70 to Str. 71	X	Marsk Dewflower (Murdannia keisak) Purple Loosestrife (Lythrum salicaria)	IO						
Str. 71 to Str. 72	X	Yellow Iris (Iris pseudacorus) Black Swallow-wort (Cynanchum louiseae)							
Str. 72 to Str. 73	X	Abundance	Broad-leaved Pepper-grass (Lepidium latifolium)						
Str. 73 to Str. 74	X	Distribution	Canada Thistle (Cirsium arvense)						
Str. 74 to Str. 75	X	Abundance	Chinese Lespedeza (Lespedeza cuneata)						
Str. 75 to Str. 76	X	Distribution	Chinese Silver Grass (Miscanthus sinensis)						
Str. 76 to Str. 77	X	Abundance	Chinese Yam (Dioscorea polystachya)						
Str. 77 to Str. 78	X	Distribution	Cogon Grass (Imperata cylindrica)						
Str. 78 to Str. 79	X	Abundance	Cup-Plant (Siphium perfoliatum)	L					
Str. 79 to Str. 80	X	Distribution	Cut-leaf Teasel (Dipsacus laciniatus)	LP					
			Cypress Spurge (Euphorbia cyathophylla)						
			Garlic Mustard (Alliaria petiolata)						
			Giant Hogweed (Heracleum mantegazzianum)						
			Golden Bamboo (Phyllostachys aurea)						
			Japanese Chaff Flower (Achyranthes japonica)						
			Japanese Hops (Humulus japonicus)						
			Japanese Silt Grass (Microstegium vimineum)						
			Japanese Virgin's Bower (Chenopodium terniflorum)						
			Leafy Spurge (Euphorbia esula)						
			Lesser Celadine (Ficaria verna)						
			Morrow's Honeysuckle (Lonicera morrowii)	L					
			Mugwort (Artemisia vulgaris)	IO					
			Narrowleaf Bittercress (Cardamine impatiens)						
			Pale Swallow-wort (Cynanchum rossicum)						
			Reed Managrass (Glyceria maxima)						
			Slender False Brome (Brachypodium sylvaticum)						
			Small Carpet Grass (Arthraxon hispidus)						
			Spotted Knapweed (Centaurea stoebe)						
			Wavyleaf Basketgrass (Opisotrichus hirtellus)						
			Wild Cherries (Prunus avium)						
			Yellow Groove Bamboo (Phyllostachys aureosulcata)						
			Amur Cork Tree (Phellodendron amurense)						
			Amur Honeysuckle (Lonicera maackii)						
			Autumn Olive (Elaeagnus umbellata)						
			Black Locust (Robinia pseudoacacia)						
			Border Privet (Ligustrum obtusifolium)						
			Burning Bush (Euonymus alatus)						
			Common Buckthorn (Rhamnus cathartica)						
			Fly Honeysuckle (Lonicera x bella)						
			Gray Florist's Willow (Salix atrocinerea)						
			Japanese Angelica Tree (Aralia elata)						
			Japanese Barberry (Berberis thunbergii)						
			Multiflora Rose (Rosa multiflora)						
			Norway Maple (Acer platanoides)						
			Smooth Buckthorn (Rhamnus frangula)						
			Sycamore Maple (Acer pseudoplatanus)						
			Tartarian honeysuckle (Lonicera tatarica)						
			Wineberry (Rubus phoenicolasius)						
			Winter Creeper (Euonymus fortunei)						
			Brazilian Waterweed (Egeria densa)						
			Broadleaf Water-milfoil (Myriophyllum heterophyllum)						
			Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)						
			Curly Pondweed (Potamogeton crispus)						
			Eurasian Water-milfoil (Myriophyllum spicatum)						
			European Frogbit (Hydrocharis mors-rupestris)						
			Fawnwort (Cabomba caroliniana)						
			Parrot-feather (Myriophyllum aquaticum)						
			Floating Primrose Willow (Ludwigia peploides)						
			Japanese Honeysuckle (Lonicera japonica)						
			Kudzu (Pueraria montana)						
			Mile-a-minute Weed (Persicaria perfoliata)						
			Oriental Bittersweet (Celastrus orbiculatus)						
			Porcelain Berry (Ampelopsis brevipedunculata)						
			Uruguayan Primrose Willow (Ludwigia hexapetala)						
			Water Chestnut (Trapa natans)						
			Yellow Floating Heart (Nymphoides peltata)						

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key			Emergent and Littoral	Herbaceous Terrestrial	Tree and Shrubs	Aquatic Plants	Vines
		ISHC	ISSC					
		Other DEC Listed Invasive Species						
Str. 80 to Str. 81	X	Abundance	Beach Vitex (Vitex Rotundifolia)					
		Distribution	Bohemian Knotweed (Reynoutria x bohemica)					
Str. 81 to Str. 82	X	Abundance	Common Reed (Phragmites australis)					
		Distribution	Garden Loosestrife (Lythrum salicaria)					
Str. 82 to Str. 83	X	Abundance	Giant Knotweed (Reynoutria sachalinensis)					
		Distribution	Japanese Knotweed (Reynoutria japonica)					
Str. 83 to Str. 84	X	Abundance	Marsh Dewflower (Murdannia keisak)	T				
		Distribution	Purple Loosestrife (Lythrum salicaria)	IO				
Str. 84 to Str. 85	X	Abundance	Yellow Iris (Iris pseudacorus)					
		Distribution	Black Swallow-wort (Cynanchum louiseae)					
Str. 85 to Str. 86	X	Abundance	Broad-leaved Pepper-grass (Lepidium latifolium)					
		Distribution	Canada Thistle (Cirsium arvense)	T				
Str. 86 to Str. 87	X	Abundance	Chinese Lespedeza (Lespedeza cuneata)	IO				
		Distribution	Chinese Silver Grass (Miscanthus sinensis)	L				
Str. 87 to Str. 88	X	Abundance	Chinese Yam (Dioscorea polystachya)					
		Distribution	Cogon Grass (Imperata cylindrica)					
Str. 88 to Str. 89	X	Abundance	Cup-Plant (Silphium perfoliatum)					
		Distribution	Cut-leaf Teasel (Dipsacus laciniatus)	T				
Str. 89 to Str. 90	X	Abundance	Cypress Spurge (Euphorbia cyparissias)					
		Distribution	Garlic Mustard (Alliaria petiolata)					
Str. 90 to Str. 91	X	Abundance	Giant Hogweed (Heracleum mantegazzianum)					
		Distribution	Golden Bamboo (Phyllostachys aurea)					
Str. 91 to Str. 92	X	Abundance	Japanese Chaff Flower (Achyranthes japonica)					
		Distribution	Japanese Hops (Humulus japonicus)					
Str. 92 to Str. 93	X	Abundance	Japanese Silt Grass (Microstegium vimineum)					
		Distribution	Japanese Virgin's Bower (Clematis terniflora)					
			Leafy Spurge (Euphorbia esula)					
			Lesser Celandine (Ficaria verna)					
			Morrow's Honeysuckle (Lonicera morrowii)	L				
			Goldenrod (Solidago canadensis)	LP	L			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)	L	L			
			Goldenrod (Solidago canadensis)	LP	LP			
			Golden Bamboo (Phyllostachys aurea)	LP	LP			
			Japanese Hops (Humulus japonicus)	LP	LP			
			Japanese Silt Grass (Microstegium vimineum)	LP	LP			
			Japanese Virgin's Bower (Clematis terniflora)	LP	LP			
			Leafy Spurge (Euphorbia esula)	L	L			
			Lesser Celandine (Ficaria verna)	L	L			
			Morrow's Honeysuckle (Lonicera morrowii)</					

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial												Tree and Shrubs	Aquatic Plants	Vines	
			ISHC			ISSC			Other DEC Listed Invasive Species									
			Abundance	Distribution		Abundance	Distribution		Abundance	Distribution		Abundance	Distribution					
Str. 93 to Str. 94	X	Beach Vitex (Vitex Rotundifolia) Bohemian Knotweed (Reynoutria x bohemica)	T			T			T			T						
		Common Reed (Phragmites australis)	LP			IO			LP			IO						
		Garden Loosestrife (Lysimachia vulgaris)	T			L			LP			T						
		Giant Knotweed (Reynoutria sachalinensis)	IO			LP			IO			LP						
		Japanese Knotweed (Reynoutria japonica)	L			IO			LP			IO						
		Marsh Dewflower (Murdannia keisak)	L			LP			LP			LP						
		Purple Loosestrife (Lythrum salicaria)	L			IO			LP			IO						
		Yellow Iris (Iris pseudacorus)	L			LP			LP			LP						
		Black Swallow-wort (Cynanchum louiseae)	L			LP			LP			LP						
		Broad-leaved Pepper-grass (Lepidium latifolium)	L			LP			LP			LP						
		Canada Thistle (Cirsium arvense)	L			LP			LP			LP						
		Chinese Lespedeza (Lespedeza cuneata)	L			LP			LP			LP						
		Chinese Silver Grass (Miscanthus sinensis)	L			LP			LP			LP						
		Chinese Yam (Dioscorea polystachya)	L			LP			LP			LP						
		Cogon Grass (Imperata cylindrica)	L			LP			LP			LP						
		Cup-Plant (Siphium perfoliatum)	L			LP			LP			LP						
		Cut-leaf Teasel (Dipsacus laciniatus)	L			LP			LP			LP						
		Cypress Spurge (Euphorbia cyathophylla)	L			LP			LP			LP						
		Garlic Mustard (Alliaria petiolata)	L			LP			LP			LP						
		Giant Hogweed (Heracleum mantegazzianum)	L			LP			LP			LP						
		Golden Bamboo (Phyllostachys aurea)	L			LP			LP			LP						
		Japanese Chaff Flower (Achyranthes japonica)	L			LP			LP			LP						
		Japanese Hops (Humulus japonicus)	L			LP			LP			LP						
		Japanese Silt Grass (Microstegium vimineum)	L			LP			LP			LP						
		Japanese Virgin's Bower (Chenopodium terniflorum)	L			LP			LP			LP						
		Leafy Spurge (Euphorbia esula)	L			LP			LP			LP						
		Lesser Celandine (Ficaria verna)	L			LP			LP			LP						
		Morrow's Honeysuckle (Lonicera morrowii)	L			LP			LP			LP						
		Mugwort (Artemisia vulgaris)	L			LP			LP			LP						
		Narrowleaf Bittercress (Cardamine impatiens)	L			LP			LP			LP						
		Pale Swallow-wort (Cynanchum rossicum)	L			LP			LP			LP						
		Reed Managrass (Glyceria maxima)	L			LP			LP			LP						
		Slender False Brome (Brachypodium sylvaticum)	L			LP			LP			LP						
		Small Carpet Grass (Arthraxon hispidus)	L			LP			LP			LP						
		Spotted Knapweed (Centaurea stoebe)	L			LP			LP			LP						
		Wavyleaf Basketgrass (Opisotrichus hirtellus)	L			LP			LP			LP						
		Wild Cheril (Antennaria sylvestris)	L			LP			LP			LP						
		Yellow Groove Bamboo (Phyllostachys aureosulcata)	L			LP			LP			LP						
		Amur Cork Tree (Phellodendron amurense)	L			LP			LP			LP						
		Amur Honeysuckle (Lonicera maackii)	L			LP			LP			LP						
		Autumn Olive (Elaeagnus umbellata)	L			LP			LP			LP						
		Black Locust (Robinia pseudoacacia)	L			LP			LP			LP						
		Border Privet (Ligustrum obtusifolium)	L			LP			LP			LP						
		Burning Bush (Euonymus alatus)	L			LP			LP			LP						
		Common Buckthorn (Rhamnus cathartica)	L			LP			LP			LP						
		Fly Honeysuckle (Lonicera x Bella)	L			LP			LP			LP						
		Gray Florist's Willow (Salix atrocinerea)	L			LP			LP			LP						
		Japanese Angelica Tree (Aralia elata)	L			LP			LP			LP						
		Japanese Barberry (Berberis thunbergii)	L			LP			LP			LP						
		Multiflora Rose (Rosa multiflora)	L			LP			LP			LP						
		Norway Maple (Acer platanoides)	L			LP			LP			LP						
		Smooth Buckthorn (Rhamnus frangula)	L			LP			LP			LP						
		Sycamore Maple (Acer pseudoplatanus)	L			LP			LP			LP						
		Tartarian honeysuckle (Lonicera tatarica)	L			LP			LP			LP						
		Wineberry (Rubus phoenicolasius)	L			LP			LP			LP						
		Winter Creeper (Euonymus fortunei)	L			LP			LP			LP						
		Brazilian Waterweed (Egeria densa)	L			LP			LP			LP						
		Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)	L			LP			LP			LP						
		Curly Pondweed (Potamogeton crispus)	L			LP			LP			LP						
		Eurasian Water-milfoil (Myriophyllum spicatum)	L			LP			LP			LP						
		European Frogbit (Hydrocharis mors-rupestris)	L			LP			LP			LP						
		Fawnwort (Cabomba caroliniana)	L			LP			LP			LP						
		Parrot-feather (Myriophyllum aquaticum)	L			LP			LP			LP						
		Floating Primrose Willow (Ludwigia peploides)	L			LP			LP			LP						
		Japanese Honeysuckle (Lonicera japonica)	L			LP			LP			LP						
		Kudzu (Pueraria montana)	L			LP			LP			LP						
		Mile-a-minute Weed (Persicaria perfoliata)	L			LP			LP			LP						
		Oriental Bittersweet (Celastrus orbiculatus)	L			LP			LP			LP						
		Porcelain Berry (Ampelopsis brevipedunculata)	L			LP			LP			LP						
		Uruguayan Primrose Willow (Ludwigia hexapetala)	L			LP			LP			LP						
		Water Chestnut (Trapa natans)	L			LP			LP			LP						
		Yellow Floating Heart (Nymphoides peltata)	L			LP			LP			LP						

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key			Emergent and Littoral		Herbaceous Terrestrial		Tree and Shrubs		Aquatic Plants		Vines	
		ISHC		ISSC									
		Other DEC Listed Invasive Species											
		Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution
Str. 106 to Str. 107	X	Abundance											
		Distribution											
Str. 107 to Str. 108	X	Abundance		L				T					
		Distribution		ET				IO					
Str. 108 to Str. 109	X	Abundance	L	L		T							
		Distribution	LP	ET		IO							
Str. 109 to Str. 110	X	Abundance	L	L		L		M					
		Distribution	LP	LP		LP		ET					
Str. 110 to Str. 111	X	Abundance		T		L							
		Distribution		IO		LP							
Str. 111 to Str. 112	X	Abundance		L									
		Distribution		LP									
Str. 112 to Str. 113	X	Abundance	L	L		T							
		Distribution	LP	ET		IO							
Str. 113 to Str. 114	X	Abundance				L							
		Distribution				LP							
Str. 114 to Str. 115	X	Abundance		L			L						
		Distribution		LP			LP						
Str. 115 to Str. 116	X	Abundance				T		L					
		Distribution				IO		LP					
Str. 116 to Str. 117	X	Abundance					L						
		Distribution					LP						
Str. 117 to Str. 118	X	Abundance						M					
		Distribution						LP					
Str. 118 to Str. 119	X	Abundance						M					
		Distribution						ET					

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)																																																																						
Span/ Location (Structure Numbers)	Key	Emergent and Littoral		Herbaceous Terrestrial								Tree and Shrubs			Aquatic Plants		Vines																																																					
				ISHC				ISSC																																																														
				Other DEC Listed Invasive Species																																																																		
				Beach Vitex (Vitex Rotundifolia)	Bohemian Knotweed (Reynoutria x bohemica)	Common Reed (Phragmites australis)	Garden Loosestrife (Lythrum vulgaris)	Giant Knotweed (Reynoutria sachalinensis)	Japanese Knotweed (Reynoutria japonica)	Marsh Dewflower (Murdannia keisak)	Purple Loosestrife (Lythrum salicaria)	Yellow Iris (Iris pseudacorus)	Black Swallow-wort (Cynanchum louiseae)	Broad-leaved Pepper-grass (Lepidium latifolium)	Canada Thistle (Cirsium arvense)	Chinese Lespedeza (Lespedeza cuneata)	Chinese Silver Grass (Miscanthus sinensis)	Chinese Yam (Dioscorea polystachya)	Cogon Grass (Imperata cylindrica)	Cup-Plant (Siphium perfoliatum)	Cut-leaf Teasel (Dipsacus laciniatus)	Cypress Spurge (Euphorbia cyathiflora)	Garlic Mustard (Alliaria petiolata)	Giant Hogweed (Heracleum mantegazzianum)	Golden Bamboo (Phyllostachys aurea)	Japanese Chaff Flower (Achyranthes japonica)	Japanese Hops (Humulus japonicus)	Japanese Silt Grass (Microstegium vimineum)	Japanese Virgin's Bower (Clematis terniflora)	Leafy Spurge (Euphorbia esula)	Lesser Celadine (Ficaria verna)	Morrow's Honeysuckle (Lonicera morrowii)	Mugwort (Artemisia vulgaris)	Narrowleaf Bittercress (Cardamine impatiens)	Pale Swallow-wort (Cynanchum roscinum)	Reed Manna Grass (Glyceria maxima)	Slender False Brome (Brachypodium sylvaticum)	Small Carpet Grass (Arthraxon hispidus)	Spotted Knapweed (Centaurea stoebe)	Wavyleaf Basketgrass (Opisismenus hirtellus)	Wild Chervil (Anthriscus sylvestris)	Yellow Groove Bamboo (Phyllostachys aureosulcata)	Amur Cork Tree (Phellodendron amurense)	Amur Honeysuckle (Lonicera maackii)	Autumn Olive (Elaeagnus umbellata)	Black Locust (Robinia pseudoacacia)	Border Privet (Ligustrum obtusifolium)	Burning Bush (Euonymus alatus)	Common Buckthorn (Rhamnus cathartica)	Fly Honeysuckle (Lonicera x Bella)	Gray Florist's Willow (Salix atrocinerea)	Japanese Angelica Tree (Aralia elata)	Japanese Barberry (Berberis thunbergii)	Multiflora Rose (Rosa multiflora)	Norway Maple (Acer platanoides)	Smooth Buckthorn (Rhamnus frangula)	Sycamore Maple (Acer pseudoplatanus)	Tartarian Honeysuckle (Lonicera tatarica)	Wineberry (Rubus phoenicolasius)	Winter Creeper (Euonymus fortunei)	Brazilian Waterweed (Egeria densa)	Broadleaf Water-milfoil (Myriophyllum heterophyllum)	Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)	Curly Pondweed (Potamogeton crispus)	Eurasian Water-milfoil (Myriophyllum spicatum)	European Frogbit (Hydrocharis mors-rupe)	Fawnwort (Cabomba caroliniana)	Parrot-feather (Myriophyllum aquaticum)	Floating Primrose Willow (Ludwigia peploides)	Japanese Honeysuckle (Lonicera japonica)
Str. 119 to Str. 120		Abundance																																																																				
Str. 119 to Str. 120		Distribution																																																																				
Str. 120 to Str. 121	X	Abundance																																																																				
Str. 120 to Str. 121	X	Distribution																																																																				
Str. 121 to Str. 122	X	Abundance		L		L		L		L		L		L																																																								
Str. 121 to Str. 122	X	Distribution		LP		LP		LP		LP		LP		LP																																																								
Str. 1 to Str. 123	X	Abundance				L		L		L		L		L																																																								
Str. 1 to Str. 123	X	Distribution				LP		LP		LP		LP		LP																																																								
Str. 123 to Str. 124	X	Abundance		T		L		L		H		FS																																																										
Str. 123 to Str. 124	X	Distribution		IO		IO		LP		LP																																																												
Str. 124 to Str. 125	X	Abundance			T		L		L																																																													
Str. 124 to Str. 125	X	Distribution			IO		LP		LP																																																													
Str. 125 to Str. 126	X	Abundance				L					FS																																																											
Str. 125 to Str. 126	X	Distribution				LP																																																																
Str. 126 to Str. 127	X	Abundance		T			T			L																																																												
Str. 126 to Str. 127	X	Distribution		IO			IO			LP																																																												
Str. 127 to Str. 128	X	Abundance			T		T			M																																																												
Str. 127 to Str. 128	X	Distribution			IO		IO			ET																																																												
Str. 128 to Str. 129	X	Abundance				T		T		M																																																												
Str. 128 to Str. 129	X	Distribution				IO		IO		ET																																																												
Str. 129 to Str. 130	X	Abundance	L		T				L																																																													
Str. 129 to Str. 130	X	Distribution	LP		IO				LP																																																													
Str. 130 to Str. 131	X	Abundance		L		L		L		T																																																												
Str. 130 to Str. 131	X	Distribution		ET		LP		LP		IO																																																												
Str. 131 to Str. 132	X	Abundance				L		L		T																																																												
Str. 131 to Str. 132	X	Distribution				ET		LP		IO																																																												

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)																				
Span/ Location (Structure Numbers)	Key	Emergent and Littoral		Herbaceous Terrestrial						Tree and Shrubs			Aquatic Plants			Vines				
				ISHC			ISSC													
Str. 144 to Str. 145	No	Abundance		Beach Vitex (Vitex Rotundifolia)	Bohemian Knotweed (Reynoutria x bohemica)															
		Distribution		Common Reed (Phragmites australis)	Canada Thistle (Cirsium arvense)															
Str. 145 to Str. 146	X	Abundance	L	Garden Loosestrife (Lysimachia vulgaris)	Chinese Lespedeza (Lespedeza cuneata)															
		Distribution	ET	Giant Knotweed (Reynoutria sachalinensis)	Chinese Silver Grass (Miscanthus sinensis)															
Str. 146 to Str. 147	X	Abundance		Japanese Knotweed (Reynoutria japonica)	Chinese Yam (Dioscorea polystachya)															
		Distribution		Marsh Dewflower (Murdannia keisak)	Cogon Grass (Imperata cylindrica)															
Str. 147 to Str. 148	X	Abundance		Purple Loosestrife (Lythrum salicaria)	Cup-Plant (Siphium perfoliatum)															
		Distribution		Yellow Iris (Iris pseudacorus)	Cut-leaf Teasel (Dipsacus laciniatus)															
Str. 148 to Str. 149	X	Abundance	L	Black Swallow-wort (Cynanchum louiseae)	Cypress Spurge (Euphorbia cyathophylla)															
		Distribution	LP	Broad-leaved Pepper-grass (Lepidium latifolium)	Garlic Mustard (Alliaria petiolata)															
Str. 149 to Str. 150	X	Abundance	L	Golden Bamboo (Phyllostachys aurea)	Giant Hogweed (Heracleum mantegazzianum)															
		Distribution	LP	Japanese Chaff Flower (Achyranthes japonica)	Golden Bamboo (Phyllostachys aurea)															
Str. 150 to Str. 151	X	Abundance	L	Japanese Hops (Humulus japonicus)	Japanese Silt Grass (Microstegium vimineum)															
		Distribution	LP	Japanese Virgin's Bower (Clematis terniflora)	Japanese Virgin's Bower (Clematis terniflora)															
Str. 151 to Str. 152	X	Abundance	M	Leafy Spurge (Euphorbia esula)	Lesser Celadine (Ficaria verna)															
		Distribution	LP	Morrow's Honeysuckle (Lonicera morrowii)	Mugwort (Artemisia vulgaris)															
Str. 152 to Str. 153	X	Abundance	M	Narrowleaf Bittercress (Cardamine impatiens)	Narrowleaf Sedge (Carex stans)															
		Distribution	LP	Pale Swallow-wort (Cynanchum rossicum)	Reed Managrass (Glyceria maxima)															
Str. 153 to Str. 154	X	Abundance	L	Slender False Brome (Brachypodium sylvaticum)	Spotted Knapweed (Centaurea stoebe)															
		Distribution	LP	Small Carpet Grass (Arthraxon hispidus)	Wavyleaf Basketgrass (Opisotrichus hirtellus)															
Str. 154 to Str. 155	X	Abundance	L	Wild Chervil (Anthriscus sylvestris)	Wild Cane (Phragmites australis)															
		Distribution	LP	Yellow Groove Bamboo (Phyllostachys aureosulcata)	Amur Cork Tree (Phellodendron amurense)															
Str. 155 to Str. 156	X	Abundance	L	Amur Honeyuckle (Lonicera maackii)	Autumn Olive (Elaeagnus umbellata)															
		Distribution	LP	Black Locust (Robinia pseudoacacia)	Black Privet (Ligustrum obtusifolium)															
Str. 156 to Str. 157	X	Abundance	L	Burning Bush (Euonymus alatus)	Burning Bush (Euonymus alatus)															
		Distribution	LP	Common Buckthorn (Rhamnus cathartica)	Common Buckthorn (Rhamnus cathartica)															
				Fly Honeysuckle (Lonicera x bella)	Fly Honeysuckle (Lonicera x bella)															
				Gray Florist's Willow (Salix atrocinerea)	Gray Florist's Willow (Salix atrocinerea)															
				Japanese Angelica Tree (Aralia elata)	Japanese Angelica Tree (Aralia elata)															
				Japanese Barberry (Berberis thunbergii)	Japanese Barberry (Berberis thunbergii)															
				Multiflora Rose (Rosa multiflora)	Multiflora Rose (Rosa multiflora)															
				Norway Maple (Acer platanoides)	Norway Maple (Acer platanoides)															
				Smooth Buckthorn (Rhamnus frangula)	Smooth Buckthorn (Rhamnus frangula)															
				Sycamore Maple (Acer pseudoplatanus)	Sycamore Maple (Acer pseudoplatanus)															
				Tartarian Honeyuckle (Lonicera tatarica)	Tartarian Honeyuckle (Lonicera tatarica)															
				Wineberry (Rubus phoenicolasius)	Wineberry (Rubus phoenicolasius)															
				Winter Creeper (Euonymus fortunei)	Winter Creeper (Euonymus fortunei)															
				Brazilian Waterweed (Egeria densa)	Brazilian Waterweed (Egeria densa)															
				Broadleaf Water-milfoil (Myriophyllum heterophyllum)	Broadleaf Water-milfoil (Myriophyllum heterophyllum)															
				Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)	Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)															
				Curly Pondweed (Potamogeton crispus)	Curly Pondweed (Potamogeton crispus)															
				Eurasian Water-milfoil (Myriophyllum spicatum)	Eurasian Water-milfoil (Myriophyllum spicatum)															
				European Frogbit (Hydrocharis mors-rupestris)	European Frogbit (Hydrocharis mors-rupestris)															
				Fawnwort (Cabomba caroliniana)	Fawnwort (Cabomba caroliniana)															
				Parrot-feather (Myriophyllum aquaticum)	Parrot-feather (Myriophyllum aquaticum)															
				Floating Primrose Willow (Ludwigia peploides)	Floating Primrose Willow (Ludwigia peploides)															
				Japanese Honeysuckle (Lonicera japonica)	Japanese Honeysuckle (Lonicera japonica)															
				Kudzu (Pueraria montana)	Kudzu (Pueraria montana)															
				Mile-a-minute Weed (Persicaria perfoliata)	Mile-a-minute Weed (Persicaria perfoliata)															
				Oriental Bittersweet (Celastrus orbiculatus)	Oriental Bittersweet (Celastrus orbiculatus)															
				Porcelain Berry (Ampelopsis brevipedunculata)	Porcelain Berry (Ampelopsis brevipedunculata)															
				Water Chestnut (Trapa natans)	Water Chestnut (Trapa natans)															
				Yellow Floating Heart (Nymphoides peltata)	Yellow Floating Heart (Nymphoides peltata)															

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial												Tree and Shrubs	Aquatic Plants	Vines			
			ISHC			ISSC			Other DEC Listed Invasive Species											
			Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution	Abundance	Distribution						
Str. 157 to Str. 158	X	Beach Vitex (Vitex Rotundifolia) Bohemian Knotweed (Reynoutria x bohemica)	M	Common Reed (Phragmites australis)	L	Canada Thistle (Cirsium arvense)	T	Chinese Lespedeza (Lespedeza cuneata)	S	Chinese Silver Grass (Miscanthus sinensis)	T	Chinese Yam (Dioscorea polystachya)	L	Cogon Grass (Imperata cylindrica)	LP	Cup-Plant (Siphium perfoliatum)	Cut-leaf Teasel (Dipsacus laciniatus)	Broad-leaved Pepper-grass (Lepidium latifolium)		
Str. 158 to Str. 159	X	Abundance	M	Distribution	LP	Common Reed (Phragmites australis)	LP	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Yellow Iris (Iris pseudacorus)		
Str. 159 to Str. 160	X	Abundance	M	Distribution	FS	Common Reed (Phragmites australis)	LP	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 160 to Str. 161	X	Abundance	M	Distribution	FS	Common Reed (Phragmites australis)	ET	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 161 to Str. 162	X	Abundance	M	Distribution	FS	Common Reed (Phragmites australis)	ET	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 162 to Str. 163	X	Abundance	M	Distribution	FS	Common Reed (Phragmites australis)	ET	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 163 to Str. 164	X	Abundance	M	Distribution	FS	Common Reed (Phragmites australis)	ET	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 164 to Str. 165	X	Abundance	L	Distribution	LP	Common Reed (Phragmites australis)	ET	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 165 to Str. 166	X	Abundance		Distribution		Common Reed (Phragmites australis)	T	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 166 to Str. 167	X	Abundance		Distribution		Common Reed (Phragmites australis)	IO	Garden Loosestrife (Lysimachia vulgaris)	L	Giant Knotweed (Reynoutria sachalinensis)	LP	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 167 to Str. 168	X	Abundance		Distribution		Common Reed (Phragmites australis)	T	Garden Loosestrife (Lysimachia vulgaris)	LP	Giant Knotweed (Reynoutria sachalinensis)	IO	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 168 to Str. 169	X	Abundance		Distribution		Common Reed (Phragmites australis)	IO	Garden Loosestrife (Lysimachia vulgaris)	T	Giant Knotweed (Reynoutria sachalinensis)	IO	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 169 to Str. 170	X	Abundance		Distribution		Common Reed (Phragmites australis)	T	Garden Loosestrife (Lysimachia vulgaris)	IO	Giant Knotweed (Reynoutria sachalinensis)	IO	Giant Knotweed (Reynoutria japonica)	L	Marsh Dewflower (Murdannia keisak)	L	Purple Loosestrife (Lythrum salicaria)	L	Black Swallow-wort (Cynanchum louiseae)		
Str. 170 to Str. 171	N	Abundance		Distribution		Common Reed (Phragmites australis)		Garden Loosestrife (Lysimachia vulgaris)		Giant Knotweed (Reynoutria sachalinensis)		Giant Knotweed (Reynoutria japonica)		Marsh Dewflower (Murdannia keisak)		Purple Loosestrife (Lythrum salicaria)		Black Swallow-wort (Cynanchum louiseae)		

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial												Tree and Shrubs	Aquatic Plants	Vines	
			ISHC			ISSC			Other DEC Listed Invasive Species									
			Abundance	Distribution	Frequency	Abundance	Distribution	Frequency	Abundance	Distribution	Frequency	Abundance	Distribution	Frequency				
Str. 170 to Str. 171	No	Beach Vitex (Vitex Rotundifolia) Bohemian Knotweed (Reynoutria x bohemica)																
Str. 171 to Str. 172	No	Common Reed (Phragmites australis) Garden Loosestrife (Lythrum vulgaris) Giant Knotweed (Reynoutria sachalinensis)	L	Canada Thistle (Cirsium arvense)	L	Chinese Lespedeza (Lespedeza cuneata)			Chinese Silver Grass (Miscanthus sinensis)			Chinese Yam (Dioscorea polystachya)						
Str. 172 to Str. 173	X	Abundance Distribution	ET	LP	L	Cogon Grass (Imperata cylindrica)			Cup-Plant (Siphium perfoliatum)			Cut-Leaf Teasel (Dipsacus laciniatus)						
Str. 173 to Str. 174	X	Abundance Distribution		LP	L	Cypress Spurge (Euphorbia cyathophylla)			Garlic Mustard (Alliaria petiolata)			Giant Hogweed (Heracleum mantegazzianum)						
Str. 184 to Str. 185	X	Abundance Distribution			L	Golden Bamboo (Phyllostachys aurea)			Japanese Chaff Flower (Achyranthes japonica)			Japanese Hops (Humulus japonicus)						
Str. 185 to Str. 186	No	Abundance Distribution			LP	Japanese Silt Grass (Microstegium vimineum)			Japanese Virgin's Bower (Clematis terniflora)			Leafy Spurge (Euphorbia esula)						
Str. 186 to Str. 187	No	Abundance Distribution				Lesser Celandine (Ficaria verna)			Lesser Celandine (Ficaria verna)			Morrow's Honeysuckle (Lonicera morrowii)						
Str. 187 to Str. 188	X	Abundance Distribution			L	Mugwort (Artemisia vulgaris)			Narrowleaf Bittercress (Cardamine impatiens)			Pale Swallow-wort (Cynanchum rossicum)						
Str. 188 to Str. 189	X	Abundance Distribution			LP	Palmetto (Serenoa repens)			Reed Managrass (Glyceria maxima)			Slender False Brome (Brachypodium sylvaticum)						
Str. 189 to Str. 190	X	Abundance Distribution	L	T	L	Parrot feather (Myriophyllum heterophyllum)			Small Carpet Grass (Arthraxon hispidus)			Spotted Knapweed (Centaurea stoebe)						
Str. 190 to Str. 191	X	Abundance Distribution	LP	IO	LP	Parrot feather (Myriophyllum heterophyllum)			Wavyleaf Basketgrass (Opisismenus hirtellus)			Wavyleaf Chervil (Anthriscus sylvestris)						
Str. 191 to Str. 192	X	Abundance Distribution			T	Yellow Groove Bamboo (Phyllostachys aureosulcata)			Yellow Groove Bamboo (Phyllostachys aureosulcata)			Amur Cork Tree (Phellodendron amurense)						
Str. 192 to Str. 193	X	Abundance Distribution			IO	Amur Honeysuckle (Lonicera maackii)			Amur Honeysuckle (Lonicera maackii)			Autumn Olive (Elaeagnus umbellata)						
Str. 193 to Str. 194	X	Abundance Distribution			L	Black Locust (Robinia pseudoacacia)			Black Locust (Robinia pseudoacacia)			Border Privet (Ligustrum obtusifolium)						
Str. 194 to Str. 195	x	Abundance			ET	Burning Bush (Euonymus alatus)			Burning Bush (Euonymus alatus)			Common Buckthorn (Rhamnus cathartica)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Fly Honeysuckle (Lonicera x Bella)						
					IO	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Gray Florist's Willow (Salix atrocinerea)						
					L	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Japanese Angelica Tree (Aralia elata)						
					T	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Japanese Barberry (Berberis thunbergii)						
					L	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Multiflora Rose (Rosa multiflora)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Norway Maple (Acer platanoides)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Sycamore Maple (Acer pseudoplatanus)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Tatarian honeysuckle (Lonicera tatarica)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Wineberry (Rubus phoenicolasius)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Winter Creeper (Euonymus fortunei)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Brazilian Waterweed (Egeria densa)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Broadleaf Water-milfoil (Myriophyllum heterophyllum)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Curly Pondweed (Potamogeton crispus)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Eurasian Water-milfoil (Myriophyllum spicatum)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			European Frogbit (Hydrocharis mors-rupestris)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Fawnwort (Cabomba caroliniana)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Floating Primrose Willow (Ludwigia peploides)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Hydrilla (Hydrilla verticillata)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Parrot-feather (Myriophyllum aquaticum)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Uruguayan Floating Heart (Nymphoides peltata)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Kudzu (Pueraria montana)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Mile-a-minute Weed (Persicaria perfoliata)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Oriental Bittersweet (Celastrus orbiculatus)						
					LP	Common Buckthorn (Rhamnus cathartica)			Common Buckthorn (Rhamnus cathartica)			Porcelain Berry (Ampelopsis brevipedunculata)						

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)									
Span/ Location (Structure Numbers) Str. 154 to Str. 155	Key	Emergent and Littoral	Herbaceous Terrestrial	Tree and Shrubs			Aquatic Plants		Vines
				ISHC	ISSC				
		Other DEC Listed Invasive Species							
Beach Vitex (Vitex Rotundifolia)	Bohemian Knotweed (Reynoutria x bohemica)								
Common Reed (Phragmites australis)	Canada Thistle (Cirsium arvense)	Lp							
Garden Loosestrife (Lysimachia vulgaris)	Chinese Lespedeza (Lespedeza cuneata)	H							
Giant Knotweed (Reynoutria sachalinensis)	Chinese Silver Grass (Miscanthus sinensis)	LP							
Japanese Knotweed (Reynoutria japonica)	Chinese Yam (Dioscorea polystachya)	FS							
Marsk Dewflower (Murdannia keisak)	Cogon Grass (Imperata cylindrica)	L							
Purple Loosestrife (Lythrum salicaria)	Cup-Plant (Siphium perfoliatum)	LP							
Yellow Iris (Iris pseudacorus)	Cut-leaf Teasel (Dipsacus laciniatus)	T							
Black Swallow-wort (Cynanchum louiseae)	Broad-leaved Pepper-grass (Lepidium latifolium)	LP							
Distribution	Canadian Thistle (Cirsium arvense)	LP							
X Str. 195 to Str. 196	Abundance	H							
Distribution	Common Reed (Phragmites australis)	LP							
X Str. 196 to Str. 197	Abundance	LP							
Distribution	Chinese Lespedeza (Lespedeza cuneata)	M							
X Str. 197 to Str. 198	Abundance	L							
Distribution	Chinese Silver Grass (Miscanthus sinensis)	LP							
X Str. 198 to Str. 199	Abundance	L							
Distribution	Chinese Yam (Dioscorea polystachya)	LP							
No Str. 199 to Str. 200	Abundance	LP							
Distribution	Cogon Grass (Imperata cylindrica)	T							
No Str. 200 to Str. 201	Abundance	LP							
Distribution	Cup-Plant (Siphium perfoliatum)	IO							
No Str. 201 to Str. 202	Abundance	LP							
Distribution	Cut-leaf Teasel (Dipsacus laciniatus)	T							
No Str. 202 to Str. 203	Abundance	LP							
Distribution	Cypress Spurge (Euphorbia cyathophylla)	IO							
No Str. 203 to Str. 204	Abundance	LP							
Distribution	Garlic Mustard (Alliaria petiolata)	IO							
No Str. 204 to Str. 205	Abundance	LP							
Distribution	Giant Hogweed (Heracleum mantegazzianum)	IO							
	Golden Bamboo (Phyllostachys aurea)	IO							
	Japanese Chaff Flower (Achyranthes japonica)	IO							
	Japanese Hops (Humulus japonicus)	IO							
	Japanese Silt Grass (Microstegium vimineum)	IO							
	Japanese Virgin's Bower (Clematis terniflora)	IO							
	Leafy Spurge (Euphorbia esula)	IO							
	Lesser Celadine (Ficaria verna)	IO							
	Morrow's Honeysuckle (Lonicera morrowii)	IO							
	Mugwort (Artemisia vulgaris)	IO							
	Narrowleaf Bittercress (Cardamine impatiens)	IO							
	Pale Swallow-wort (Cynanchum rossicum)	IO							
	Reed Manna Grass (Glyceria maxima)	IO							
	Slender False Brome (Brachypodium sylvaticum)	IO							
	Small Carpet Grass (Arthraxon hispidus)	IO							
	Spotted Knapweed (Centaurea stoebe)	IO							
	Wavyleaf Basketgrass (Opisotrichus hirtellus)	IO							
	Wild Chervil (Anthriscus sylvestris)	IO							
	Yellow Groove Bamboo (Phyllostachys aureosulcata)	IO							
	Amur Cork Tree (Phellodendron amurense)	IO							
	Amur Honeysuckle (Lonicera maackii)	IO							
	Autumn Olive (Elaeagnus umbellata)	IO							
	Black Locust (Robinia pseudoacacia)	IO							
	Border Privet (Ligustrum obtusifolium)	IO							
	Burning Bush (Euonymus alatus)	IO							
	Common Buckthorn (Rhamnus cathartica)	IO							
	Fly Honeysuckle (Lonicera x bella)	IO							
	Gray Florist's Willow (Salix atrocinerea)	IO							
	Japanese Angelica Tree (Aralia elata)	IO							
	Japanese Barberry (Berberis thunbergii)	IO							
	Multiflora Rose (Rosa multiflora)	IO							
	Norway Maple (Acer platanoides)	IO							
	Smooth Buckthorn (Rhamnus frangula)	IO							
	Sycamore Maple (Acer pseudoplatanus)	IO							
	Tartarian honeysuckle (Lonicera tatarica)	IO							
	Wineberry (Rubus phoenicolasius)	IO							
	Winter Creeper (Euonymus fortunei)	IO							
	Brazilian Waterweed (Egeria densa)	IO							
	Broadleaf Water-milfoil (Myriophyllum heterophyllum)	IO							
	Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)	IO							
	Curly Pondweed (Potamogeton crispus)	IO							
	Eurasian Water-milfoil (Myriophyllum spicatum)	IO							
	European Frogbit (Hydrocharis mors-rupestris)	IO							
	Fawnwort (Cabomba caroliniana)	IO							
	Parrot-feather (Myriophyllum aquaticum)	IO							
	Floating Primrose Willow (Ludwigia peploides)	IO							
	Japanese Honeysuckle (Lonicera japonica)	IO							
	Kudzu (Pueraria montana)	IO							
	Mile-a-minute Weed (Persicaria perfoliata)	IO							
	Oriental Bittersweet (Celastrus orbiculatus)	IO							
	Porcelain Berry (Ampelopsis brevipedunculata)	IO							
	Uruguayan Primrose Willow (Ludwigia hexapetala)	IO							
	Water Chestnut (Trapa natans)	IO							
	Yellow Floating Heart (Nymphoides peltata)	IO							

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial	Tree and Shrubs	Aquatic Plants	Vines	ISHC	ISSC	Other DEC Listed Invasive Species
Str. 205 to Str. 206	No	Abundance	Beach Vitex (Vitex Rotundifolia)						
		Distribution	Bohemian Knotweed (Reynoutria x bohemica)						
Str. 206 to Str. 207	No	Abundance	Common Reed (Phragmites australis)						
		Distribution	Canada Thistle (Cirsium arvense)						
Str. 207 to Str. 208	No	Abundance	Chinese Lespedeza (Lespidea cuneata)						
		Distribution	Giant Knotweed (Reynoutria sachalinensis)						
Str. 208 to Str. 209	No	Abundance	Japanese Knotweed (Reynoutria japonica)						
		Distribution	Marsk Dewflower (Murdannia keisak)						
Str. 209 to Str. 210	No	Abundance	Purple Loosestrife (Lythrum salicaria)						
		Distribution	Yellow Iris (Iris pseudacorus)						
Str. 210 to Str. 211	No	Abundance	Black Swallow-wort (Cynanchum louiseae)						
		Distribution	Broad-leaved Pepper-grass (Lepidium latifolium)						
Str. 211 to Str. 212	No	Abundance	Canadian Thistle (Cirsium heterophyllum)						
		Distribution	Japanese Chaff Flower (Achyranthes japonica)						
Str. 141 (R) to Str. 142®	No	Abundance	Japanese Hops (Humulus japonicus)						
		Distribution	Japanese Virgin's Bower (Chenopodium terniflorum)						
Str. 142(R) to Str. 143 °	X	Abundance	Leafy Spurge (Euphorbia corollata)						
		Distribution	Mugwort (Artemisia vulgaris)						
Str. 143(R) to Str. 144 °	No LO	Abundance	Narrowleaf Bittercress (Cardamine impatiens)						
		Distribution	Pale Swallow-wort (Cynanchum rossicum)						
Str. 144 (R) to Str. 145°	X	Abundance	Reed Man Grass (Glyceria maxima)						
		Distribution	Slender False Brome (Brachypodium sylvaticum)						
			Small Carpet Grass (Arthraxon hispidus)						
			Spotted Knapweed (Centaurea stoebe)						
			Wavyleaf Basketgrass (Opisismenus hirtellus)						
			Wild Cheril (Antennaria sylvestris)						
			Yellow Groove Bamboo (Phyllostachys aureosulcata)						
			Amur Cork Tree (Phellodendron amurense)						
			Amur Honeysuckle (Lonicera maackii)						
			Autumn Olive (Elaeagnus umbellata)						
			Black Locust (Robinia pseudoacacia)						
			Border Privet (Ligustrum obtusifolium)						
			Burning Bush (Euonymus alatus)						
			Common Buckthorn (Rhamnus cathartica)						
			Fly Honeysuckle (Lonicera x Bella)						
			Gray Florist's Willow (Salix atrocinerea)						
			Japanese Angelica Tree (Aralia elata)						
			Japanese Barberry (Berberis thunbergii)						
			Multiflora Rose (Rosa multiflora)						
			Norway Maple (Acer platanoides)						
			Smooth Buckthorn (Rhamnus frangula)						
			Sycamore Maple (Acer pseudoplatanus)						
			Tartarian honeysuckle (Lonicera tatarica)						
			Wineberry (Rubus phoenicolasius)						
			Winter Creeper (Euonymus fortunei)						
			Brazilian Waterweed (Egeria densa)						
			Broadleaf Water-milfoil (Myriophyllum heterophyllum)						
			Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)						
			Curly Pondweed (Potamogeton crispus)						
			Eurasian Water-milfoil (Myriophyllum spicatum)						
			European Frogbit (Hydrocharis mors-rupe)						
			Fawnwort (Cabomba caroliniana)						
			Parrot-feather (Myriophyllum aquaticum)						
			Floating Primrose Willow (Ludwigia peploides)						
			Japanese Honeysuckle (Lonicera japonica)						
			Kudzu (Pueraria montana)						
			Mile-a-minute Weed (Persicaria perfoliata)						
			Oriental Bittersweet (Celastrus orbiculatus)						
			Porcelain Berry (Ampelopsis brevipedunculata)						

Invasive Species Inventory Field Survey Results for the Lockport-Batavia 112 Rebuild Project (2023)

Span/ Location (Structure Numbers)	Key	Emergent and Littoral	Herbaceous Terrestrial												Tree and Shrubs	Aquatic Plants	Vines	
			ISHC			ISSC			Other DEC Listed Invasive Species									
			H	ET	L	M	LP	LP	M	LP	LP	T	IO	IO				
Str. 145(R) to Str. 146 °	X	Beach Vitex (Vitex Rotundifolia) Bohemian Knotweed (Reynoutria x bohemica)																
Str. 146 (R) to Str. 147 °	X	Common Reed (Phragmites australis) Garden Loosestrife (Lysimachia vulgaris) Giant Knotweed (Reynoutria sachalinensis)	H	ET	L	M	LP	LP										
Str. 147(R) to Str. 148°	X	Japanese Knotweed (Reynoutria japonica) Marsh Dewflower (Murdannia keisak)	M	ET														
Str. 155(R) to Str. 156 °	X	Purple Loosestrife (Lythrum salicaria) Yellow Iris (Iris pseudacorus)	L															
Str. 156(R) to Str. 157°	X	Black Swallow-wort (Cynanchum louiseae) Broad-leaved Pepper-grass (Lepidium latifolium)	M	ET														
Str. 157(R) to Str. 158 °	X	Canada Thistle (Cirsium arvense) Chinese Lespedeza (Lespedeza cuneata)	LP															
Str. 158(R) to Str. 159 °	X	Chinese Silver Grass (Miscanthus sinensis) Chinese Yam (Dioscorea polystachya)																
Str. 159(R) to Str. 160 °	X	Cogon Grass (Imperata cylindrica) Cup-Plant (Siphium perfoliatum)																
		Cut-leaf Teasel (Dipsacus laciniatus) Cypress Spurge (Euphorbia cyathophylla)																
		Garlic Mustard (Alliaria petiolata)																
		Giant Hogweed (Heracleum mantegazzianum) Golden Bamboo (Phyllostachys aurea)																
		Japanese Chaff Flower (Achyranthes japonica)																
		Japanese Hops (Humulus japonicus)																
		Japanese Silt Grass (Microstegium vimineum)																
		Japanese Virgin's Bower (Clematis terniflora)																
		Leafy Spurge (Euphorbia esula)																
		Lesser Celandine (Ficaria verna)																
		Morrow's Honeysuckle (Lonicera morrowii)																
		Mugwort (Artemisia vulgaris)																
		Narrowleaf Bittercress (Cardamine impatiens)																
		Pale Swallow-wort (Cynanchum rossicum)																
		Reed Manna Grass (Glyceria maxima)																
		Slender False Brome (Brachypodium sylvaticum)																
		Small Carpet Grass (Arthraxon hispidus)																
		Spotted Knapweed (Centaurea stoebe)																
		Wavyleaf Basketgrass (Opisotrichus hirtellus)																
		Wild Chervil (Anthriscus sylvestris)																
		Yellow Groove Bamboo (Phyllostachys aureosulcata)																
		Amur Cork Tree (Phellodendron amurense)																
		Amur Honeysuckle (Lonicera maackii)																
		Autumn Olive (Elaeagnus umbellata)																
		Black Locust (Robinia pseudoacacia)																
		Border Privet (Ligustrum obtusifolium)																
		Burning Bush (Euonymus alatus)																
		Common Buckthorn (Rhamnus cathartica)																
		Fly Honeysuckle (Lonicera x Bella)																
		Gray Florist's Willow (Salix atrocinerea)																
		Japanese Angelica Tree (Aralia elata)																
		Japanese Barberry (Berberis thunbergii)																
		Multiflora Rose (Rosa multiflora)																
		Norway Maple (Acer platanoides)																
		Smooth Buckthorn (Rhamnus frangula)																
		Sycamore Maple (Acer pseudoplatanus)																
		Tartarian honeysuckle (Lonicera tatarica)																
		Wineberry (Rubus phoenicolasius)																
		Winter Creeper (Euonymus fortunei)																
		Brazilian Waterweed (Egeria densa)																
		Broadleaf Water-milfoil (Myriophyllum heterophyllum)																
		Broadleaf Water-milfoil Hybrid (Myriophyllum heterophyllum x M. laxum)																
		Curly Pondweed (Potamogeton crispus)																
		Eurasian Water-milfoil (Myriophyllum spicatum)																
		European Frogbit (Hydrocharis mors-rupestris)																
		Fawnwort (Cabomba caroliniana)																
		Parrot-feather (Myriophyllum aquaticum)																
		Floating Primrose Willow (Ludwigia peploides)																
		Japanese Honeysuckle (Lonicera japonica)																
		Kudzu (Pueraria montana)																
		Mile-a-minute Weed (Persicaria perfoliata)																
		Oriental Bittersweet (Celastrus orbiculatus)																
		Porcelain Berry (Ampelopsis brevipedunculata)																
		Uruguayan Primrose Willow (Ludwigia hexapetala)																
		Water Chestnut (Trapa natans)																
		Yellow Floating Heart (Nymphoides peltata)																

Abundance

T= Trace (<1%)

IO-Infrequent Occurance

L= Low (1-5%)

ET- Evenly Throughout

M= Medium (5-25% LP-Localized Patches

H= High (> 25%) FS- Frequent Stands

**Attachment B – Environmental Energy Alliance of New York
(EEANY)**

*Best Management Practices for Preventing the Transportation of
Invasive Species
(Revision January 2015)*



New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species



Environmental Energy Alliance of New York
Revisions January 2015

Table of Contents

1.0	Introduction.....	1
2.0	Definitions	2
3.0	Purpose.....	3
4.0	Applicability	3
5.0	Procedures.....	3
5.1	Equipment.....	3
5.2	Inspection and Cleaning.....	4
5.3	Disposal of Impacted Material	4
5.4	Other Prevention Measures.....	4
5.5	Site Restoration.....	4
5.6	Vegetation Survey (Optional).....	5
6.0	Training.....	5
7.0	Emergency Work	5
8.0	References.....	6

Appendices

Appendix 1 - Best Management Practices (BMP's) for Invasive Species Transportation Prevention

Appendix 2 - 6 NYCRR Part 575 Prohibited and Regulated Invasive Species, September 10, 2014

1.0 Introduction

Invasive species are non-native plant, animal, or microbial species that cause, or are likely to cause, economic or ecological harm or harm to human health (Presidential Executive Order 13112). Invasive species means, “A species that is nonnative to the ecosystem under consideration; and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Harm must significantly outweigh benefit” [New York Environmental Conservation Law §9-1703(10)(a)] Invasive species have been introduced by human action into a region outside their natural geographic range. Introductions occur along a variety of pathways or vectors, either intentionally such as intentional transport of a species for trade, or by accidental means, as in the case of stowaway species found in the ballast-water of ocean-going vessels.

Most scientists regard invasive species as second only to habitat loss as a threat to biodiversity. The presence of invasive species in a given region is one of the leading causes of endangerment to species native to that region. On a nationwide basis, about half of plant and animal species listed as federally Endangered or Threatened are at risk because of invasive species.

Annual economic losses due to invasive species in the U.S. have been estimated at over \$138 billion (Pimentel et al. 2000). These losses include damage to crops and pasture, forest losses, damage from insect and other invertebrate pests, human diseases, and associated control costs.

In an effort, where feasible, to limit the introduction and spread of *invasive species*, this Best Management Practice (“BMP”) will be employed when performing activities that occur in *jurisdictional areas* as authorized by the DEC. The BMP identifies procedures that will be incorporated into routine work practices to prevent the introduction and spread of *invasive species*.

2.0 Definitions

The following definitions are applicable to this BMP.

Environmental Energy Alliance of New York (EEANY) – is an association of electric and gas Transmission and Distribution (T&D) companies and electric generating companies that provide energy services in the State of New York. This BMP was prepared by the Land Use Subcommittee of the T&D Committee, which currently represents the following members: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Long Island Power Authority, National Grid USA Service Company, Inc., New York Power Authority, New York State Electric & Gas Corporation, Orange and Rockland Utilities, and Rochester Gas & Electric Corporation.

Invasive species – species that are non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Management Plan National Invasive Species Council, 2001). For purposes of this document, *invasive species* are those contained on the list contained within 6 NYCRR Part 575 Prohibited and Regulated Invasive Species (Appendix – 2).

Invasive species plant material – seeds, roots, or pieces of plant material that could germinate into live plants.

Jurisdictional Area – lands under the statutory jurisdiction of the NYSDEC such as certain freshwater wetlands and adjacent areas, tidal wetlands, certain water bodies, and any protected and species habitat areas specified by natural resource supervisors.

NYSDEC General Permit – a NYSDEC permit authorizing certain utility line activities under Articles 15, 24, and 25 of NYS Environmental Conservation Law. These activities include: inspection, maintenance, repair, restoration, reconstruction of pre-existing structures, vegetation cutting and trimming, and emergency actions affecting tidal wetlands, protected waters, regulated freshwater wetlands, adjacent areas, and protected habitat areas.

Regulated Activity – an activity taking place within a *jurisdictional area* that requires authorization from the NYSDEC.

Utility Rights-of-Way - is an easement-acquired or fee-owned corridor in which gas or electric transmission facilities are located.

3.0 Purpose

This BMP provides guidance for inspecting and cleaning vehicles and equipment to help prevent the spread of invasive species. The procedures identified within this manual outline cost-effective and realistic practices that *Environmental Energy Alliance of New York (EEANY)* utility members will implement when conducting a *regulated activity* within a *jurisdictional area*.

4.0 Applicability

This management practice applies to all *EEANY* utility members performing NYSDEC *regulated activities* within *jurisdictional areas* with populations of *invasive species*.

5.0 Procedures

There are two procedural options for EEANY companies to follow; one is to conduct the BMPs as detailed in the following sections of this plan or to conduct vegetation surveys for invasive species as outlined in Section 5.6. Field crews will be provided a flowchart to assist with determining when to implement these best management practices (Appendix 1).

The following detailed practices will apply where feasible when invasive species are present and when the work is covered by a GP or individual wetland permit.

5.1 Equipment

- a. Equipment must arrive clean without visible soil clumps, plant or animal material.
- b. Equipment includes, but is not limited to, vehicles, trailers, machinery, matting, boats, barges, and other watercraft, tools, and other materials.
- c. Transporting equipment will be cleaned before accepting a new load.
- d. Consider tracking pads as a means to remove soil from equipment. If tracking pads are used they must be cleaned after each use in a specific area.
- e. Equipment will be cleaned using one of the methods listed below (use the most effective method that is practical):
 - Brush, broom, shovel or other similar hand tools (used without water)
 - High pressure air (when feasible)
- f. Equipment must be cleaned within one of the below areas:
 - the infested work area
 - an area immediately adjacent to the work area that is itself currently infested with *invasive species*
- g. Do not clean equipment in or near waterways as it may promote the spread of *invasive species* downstream.
- h. Where possible, staging areas will be established in locations that are free of *invasive species*. Otherwise, all equipment will be cleaned using the techniques described in 5.3 before leaving the area.
- i. When wetland matting is required, it will arrive on site visibly clean, be installed prior to any activities, and will be appropriately cleaned before leaving the area.

5.2 Inspection and Cleaning

- a. Inspections and cleaning should be conducted especially when moving from an infested area to an uninfested area.
- b. Prior to exiting work area clothing, footwear, and gear should be cleaned of visible signs of plant material.
- c. Carry appropriate cleaning equipment (e.g. wire brush, small screwdriver, boot brush) to help remove soils, seeds, and plant material.
- d. Preferred locations for cleaning are those where:
 - Work activities are taking place;
 - *Invasive species* are already established; or
 - An area immediately adjacent to the work site that is itself currently infested with *invasive species*.
- e. No cleaning of clothing, footwear, gear in or adjacent to waterways – it may promote the spread of *invasive species* downstream.
- f. Cleaning will include brushing or self “pat down” of clothing, footwear, and other personal gear within the infested work area.

5.3 Disposal of Impacted Material

- a. Preferred locations for equipment cleaning are those areas where work activities are taking place or immediately adjacent areas currently impacted with *invasive species*.
- b. Do not clean equipment, vehicles or trailers in or near waterways.
- c. Do not dispose of soil, seeds, or plant material in storm drains.
- d. Any plant materials that are incidentally removed after completion of steps a-c from site will be properly disposed of in a manner that prevents viable plant parts and propagules from being spread

5.4 Other Prevention Measures

- a. Reasonable steps to avoid transportation of *invasive species*, including small, isolated, populations, will be taken.
- b. As an alternative to cleaning, ancillary equipment such as spare tires and winches when feasible will be covered when entering *jurisdictional areas* containing populations of *invasive species*.
- c. Vehicular access into areas containing populations of *invasive species* will be reduced or minimized to the maximum extent practical. When practical vehicles will be parked outside of the impacted area and crews will enter on foot.

5.5 Site Restoration

- a. Minimize soil disturbances by reducing work areas and reducing activities that may result in soil disturbances.
- b. Re-vegetate bare soils as soon as feasible to minimize the possible establishment of *invasive species*. When seeding, non-invasive or local native species must be used (seed mixes will vary from region to region). Seed will be broadcasted over all bare soil areas and covered with a mulch layer such as straw. Choose appropriate seed mixes based on site conditions.

- c. On steep sloping areas (i.e. slopes exceeding 20 percent), soil erosion control matting (i.e. jute mesh or straw blankets) must be installed over the seeded area. The matting should be secured with biodegradable tacks.
- d. Stabilize disturbed soils using appropriate erosion and sediment control procedures as soon as possible. Use invasive free materials such as straw or wood chips; avoid using hay.

5.6 Vegetation Survey (Optional)

If the above BMPS are not followed, then vegetation surveys of site(s) to detect populations of invasive species should be made in advance prior to any activities. If the optional vegetation survey is performed and no invasive species are found, then the procedures outlined above in section 5.1 through 5.5 will not be followed. Survey inspections can be integrated with other activities such as ROW inspections and should be kept as simple as possible to meet invasive species management objectives. If significant populations of invasive species are detected on surveys, then Sections 5.1 to 5.5 apply.

- a. Prior to implementing activities scout for, locate and document significant invasive species infestations.
- b. Consider the need for actions based on: 1) the degree of invasiveness; 2) severity of the current infestation; 3) amount of additional habitat or host at risk for invasion; and 4) feasibility of managing the spread.
- c. Plan activities to limit the potential for introduction and spread of invasive species, prior to construction.
- d. Provide appropriate resources in identification of known invasive species for corridor workers.

6.0 Training

A flowchart (Appendix 1) to assist field crews on when to implement the above procedures will be distributed to all field crews.

All transmission vegetation management planners, foresters, and ROW maintenance personnel will be trained in the procedures outlined in Section 5.0 above. Additionally, training sessions focused on the identification of *invasive species* identified in Appendix 2 will be conducted by the individual utility companies. This may take the form of hard copy materials, tail gate briefings and/or presentations during regular staff meetings.

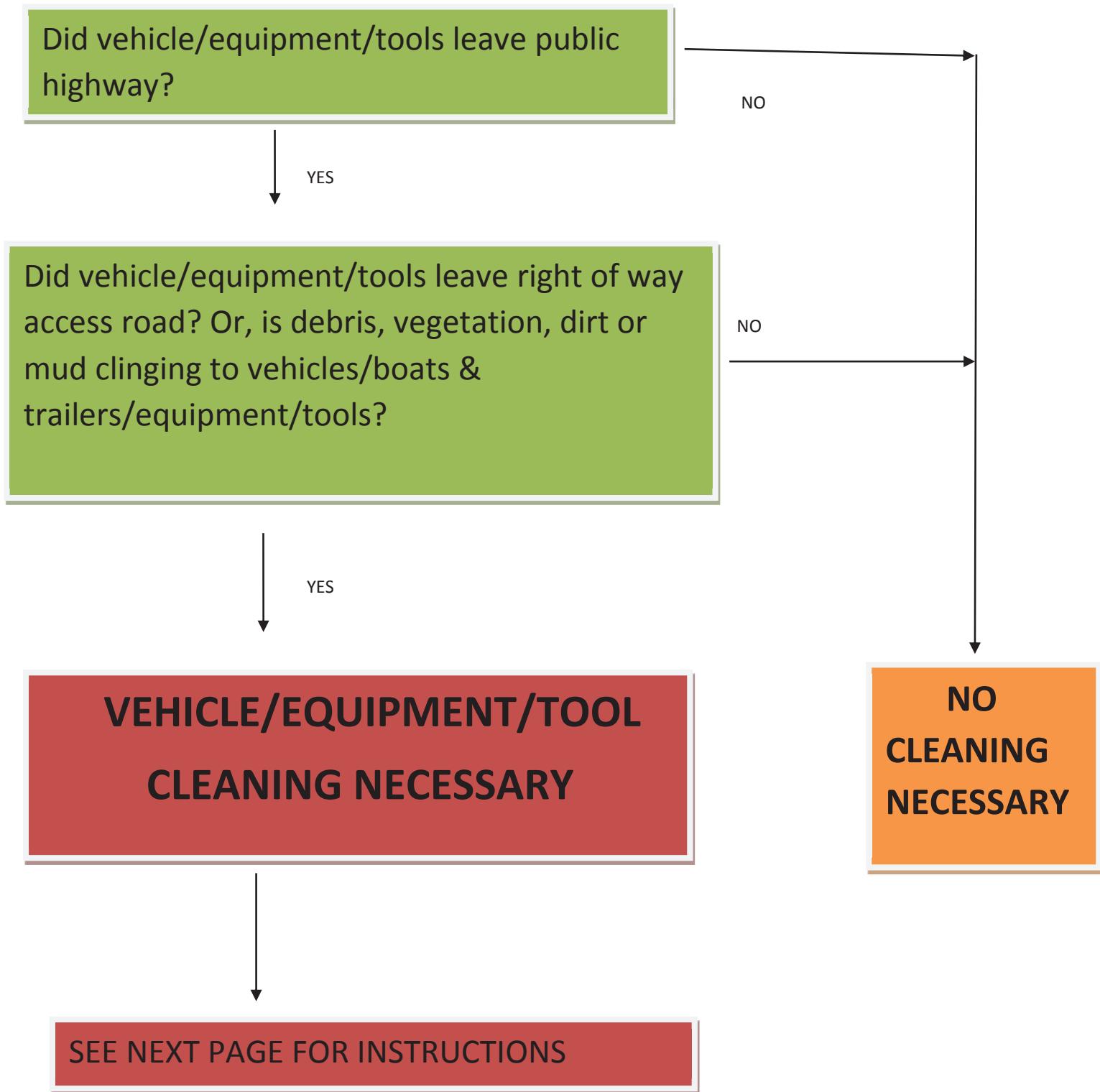
7.0 Emergency Work

During emergencies, *EEANY* utility members will strictly comply with the Emergency Action condition protocol outlined in the *NYSDEC General Permit*. Appropriate site-specific *invasive species* controls and restoration efforts will be determined on an individual basis in conjunction with the regional NYSDEC office.

8.0 References

- Electric Power Research Institute, 2008. "Invasive Species and Utility Rights of Way: A Review of the Science". EPRI Publication number 1014032, Palo Alto, CA
- Pimentel, D., Lach, L., Zuniga, R. & Morrison, D. 2000. Environmental and economic costs of nonindigenous species in the United States. Bioscience, 50(1): 53-65.
- Presidential Executive Order 13112. Volume 64, Federal Register 1999. Invasive Species.
- Wisconsin Council on Forestry. 2010. *Invasive Species Best Management Practice for Transportation and Utility Rights-of-Way*.

BEST MANAGEMENT PRACTICES (BMP'S) for INVASIVE SPECIES TRANSPORT PREVENTION



APPENDIX - 2

6 NYCRR Part 575 Prohibited and Regulated Invasive Species September 10, 2014

ALGAE AND CYANOBACTERIA

Prohibited:

Caulerpa taxifolia, Killer Green Algae
Didymosphenia geminata,
Didymo *Prymnesium parvum*, Golden Algae

Regulated:

Cylindrospermopsis raciborskii, Cylindro
Gratelouzia turuturu, Red Algae

PLANTS

Prohibited:

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 Bittersweet
Centaurea stoebe (*C. biebersteinii*, *C. diffusa*, *C. maculosa* misapplied, *C. xpsammogena*), Spotted Knapweed
Cirsium arvense (*C. setosum*, *C. incanum*, *Serratula arvensis*), Canada Thistle
Cynanchum louiseae (*C. nigrum*, *Vincetoxicum nigrum*), Black Swallow-wort
Cynanchum rossicum (*C. medium*, *Vincetoxicum medium*, *V. rossicum*), Pale Swallow-wort
Dioscorea polystachya (*D. batatas*), Chinese Yam
Dipsacus laciniatus, Cut-leaf Teasel
Egeria densa, Brazilian Waterweed
Elaeagnus umbellata, Autumn Olive
Euphorbia cyparissias, Cypress Spurge
Euphorbia esula, Leafy Spurge
Ficaria verna (*Ranunculus ficaria*), Lesser Celandine
Frangula alnus (*Rhamnus frangula*), 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 (*I. arundinacea*, *Lagurus cylindricus*), Cogon Grass
Iris pseudacorus, Yellow Iris
Lepidium latifolium, Broad-leaved Pepper-grass
Lespedeza cuneata, Chinese Lespedeza
Ligustrum obtusifolium, Border Privet
Lonicera japonica, Japanese Honeysuckle
Lonicera maackii, Amur Honeysuckle
Lonicera morrowii, Morrow's Honeysuckle
Lonicera tatarica, Tartarian Honeysuckle
Lonicera x bella, Fly Honeysuckle
Ludwigia hexapetala (*L. grandiflora*), Uruguayan Primrose Willow
Ludwigia peploides, Floating Primrose Willow
Lysimachia vulgaris, Garden Loosestrife
Lythrum salicaria, Purple Loosestrife
Microstegium vimineum, Japanese Stilt 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 (*Polygonum perfoliatum*), Mile-a-minute Weed
Phellodendron amurense, Amur Cork Tree
Phragmites australis, Common Reed Grass
Phyllostachys aurea, Golden Bamboo
Phyllostachys aureosulcata, Yellow Groove Bamboo
Potamogeton crispus, Curly Pondweed
Pueraria montana, Kudzu
Reynoutria japonica (*Fallopia japonica*, *Polygonum cuspidatum*), Japanese Knotweed
Reynoutria sachalinensis (*Fallopia sachalinensis*, *Polygonum sachalinensis*), Giant Knotweed
Reynoutria x bohemica (*Fallopia x bohemica*, *Polygonum x bohemica*), Bohemian Knotweed
Rhamnus cathartica, Common Buckthorn
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

Regulated:

Acer platanoides, Norway Maple
Clematis terniflora, Japanese Virgin's Bower
Euonymus alatus, Burning Bush
Euonymus fortunei, Winter Creeper
Miscanthus sinensis, Chinese Silver Grass
Robinia pseudoacacia, Black Locust

FISH**Prohibited:**

Channa argus, Northern Snakehead
Channa marulioides, Bullseye Snakehead
Channa micropeltes, Giant Snakehead
Clarias batrachus, Walking Catfish
Gambusia affinis, Western Mosquitofish
Gambusia holbrooki, Eastern Mosquitofish
Hypophthalmichthys harmandi, Largescale Silver Carp
Hypophthalmichthys molitrix, Silver Carp
Hypophthalmichthys nobilis, Bighead Carp
Misgurnus anguillicaudatus, Oriental Weatherfish
Mylopharyngodon piceus, Black Carp
Neogobius melanostomus, Round Goby
Petromyzon marinus, Sea Lamprey
Proterorhinus semilunaris (*P. marmoratus*),
Tubenose Goby
Tinca tinca, Tench

Regulated:

Carassius auratus, Goldfish
Cyprinella lutrensis, Red Shiner
Cyprinus carpio, Common Carp/ Koi
Gymnocephalus cernuus, Ruffe
Monopterus albus, Asian Swamp Eel
Oreochromis aureus, Blue Tilapia
Oreochromis niloticus, Nile Tilapia
Pterois miles, Common Lionfish
Pterois volitans, Red Lionfish
Sander lucioperca (*Stizostedion lucioperca*), Zander
Scardinius erythrophthalmus, Rudd

AQUATIC INVERTEBRATES**Prohibited:**

Bellamya chinensis (*Cipangopaludina chinensis*), Chinese Mystery Snail
Bellamya japonica, Japanese Mystery Snail
Bithynia tentaculata, Faucet Snail
Bythotrephese longimanus (*B. cederstroemi*), Spiny Water Flea
Cercopagis pengoi, Fishhook Water Flea
Corbicula fluminea, Asian Clam
Crassostrea ariakensis, Suminoe Oyster
Didemnum spp., Carpet Tunicate

Regulated:

Dreissena polymorpha, Zebra Mussel
Dreissena rostriformis bugensis, Quagga Mussel
Eriocheir sinensi, Chinese Mitten Crab
Hemigrapsus sanguineus, Asian Shore Crab
Hemimysis anomala, Bloody Red Shrimp
Orconectes rusticus, Rusty Crayfish
Potamopyrgus antipodarum, New Zealand Mud Snail
Rapana venosa, Veined Rapa Whelk
Styela plicata, Asian Sea Squirt

Regulated:

Carcinus maenas, European Green Crab
Daphnia lumholzii, Water Flea
Hemigrapsus takanoi (*H. penicillatus*), Brush-clawed Shore Crab/ Grapsid Crab

TERRESTRIAL INVERTEBRATES**Prohibited:**

Achatina achatina, Giant Ghana Snail
Achatina fulica (*Lissachatina fulica*), Giant African Land Snail
Adelges tsugae, Hemlock Woolly Adelgid
Agrilus planipennis, Emerald Ash Borer
Amynthas spp., Asian Earthworms
Anoplophora glabripennis, Asian Longhorn Beetle
Apis mellifera scutellata x *A. mellifera ligustica*/ *A. mellifera iberiensis*, Africanized Honey Bee
Archachatina marginata, Giant West African Snail
Cryptococcus fagisuga, Beech Scale
Lymantria dispar, Asian and European Gypsy Moth
Monochamus alternatus, Japanese Pine Sawyer
Pityophthorus juglandis, Walnut Twig Beetle
Sirex noctilio, Sirex Woodwasp

TERRESTRIAL AND AQUATIC VERTEBRATES**Prohibited:**

Cygnus olor, Mute Swan
Lepus europaeus, European Hare
Myocastor coypus, Nutria
Nyctereutes procyonoides, Asian Raccoon Dog
Sus scrofa (excluding *Sus scrofa domestica*), Eurasian Boar

Regulated:

Alopochen aegyptiacus, Egyptian Goose
Cairina moschata, Muscovy Duck
Myiopsitta monachus, Monk Parakeet
Oryctolagus cuniculus, European Rabbit
Trachemys scripta elegans, Red-eared Slider
Xenopus laevis, African Clawed Frog

FUNGI

Prohibited:

Amylostereum areolatum, Sirex Wasp Fungus
Geomyces destructans, White-nose Syndrome
Geosmithia morbida, Thousand Canker Disease
Phytophthora ramorum, Sudden Oak Death

For the official regulations and species lists please
see: <http://www.dec.ny.gov/regulations/265.html>

Attachment C – Joint Proposal, Invasive Species Management Plan
EM&CP
Specifications
(Also included as Appendix AE of EMP)

Invasive Species Management Plan (ISMP) Specifications

Baseline Invasive Species) Surveys

- As part of the Pre-Construction Survey, the entire Limits of Disturbance (LOD) along the ROW and off-ROW access roads shall be surveyed for invasive species plants as identified in 6 NYCRR Part 575 regulations. If the EM&CP shows certain areas that will not be disturbed as part of construction, the Certificate Holder will not be required to survey those portions of the ROW.
- When the Pre-Construction Survey is prepared as part of EM&CP development, qualitative observations for invasive species spread potential from adjacent properties and land use (i.e., invasive species infested adjoining property, private off-site access roads) shall be documented.
- The Pre-Construction Survey shall utilize a sub-meter accurate Global Positioning System (GPS). The raw data will be provided to DEC, DPS and DAM prior to the consultation meeting on the draft ISMP.

Construction Best Management Practices (BMPs)

Construction BMPs shall be implemented for all invasive species in all LOD not just jurisdictional areas and shall be consistent with the Environment Energy Alliance of New York's *New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species*, revised March 20015 (EEANY March 2015 BMPs) and at a minimum shall include:

- Contractor/Subcontractor/Employee Training on cleaning and other invasive species management procedures;
- Inspection of Construction Materials and Equipment;
- Minimizing Ground Disturbance in invasive species infested areas;
- Proper Clearing and Disposal Practices (*i.e., cut and leave in infested area or dispose off-site in landfill-incinerator or approved disposal site*); and
- Equipment Cleaning.

Invasive species propagation shall be prevented by, among other stated techniques, the following:

- Preparing ROW travel routes to prevent invasive species spread through contact with equipment/vehicles by any practical combination of mating, invasive species burial, clean fill cover or invasive species eradication;
- Providing cleaning stations for equipment/vehicles whenever leaving invasive species infested areas along ROW; and/or
- Other mutually agreeable practices.

- A post construction survey shall be conducted after the second full growing season from final SWPPP signoff;
- Such post-construction survey shall be conducted in all LOD (as defined in the EEANY March 2015 BMPs);
- Such post-construction survey shall use the Pre-Application Baseline (and the update developed during EM&CP development) invasive species Survey Protocols;
- Upon completion of the post-construction survey, a final report shall be prepared and submitted to the NYSDEC, DAM and DPS. The final report shall discuss whether the goals of the ISMP have been achieved and whether any additional post-construction monitoring may be warranted based on whether an expansion of species of high concern as a result of construction are present (as defined in the Generic Adaptive Management Strategy). If the post construction monitoring report shows the aerial extent of species of high concern has expanded as defined in the Generic Strategy discussed below as a result of construction of the Project, the final report shall include a Final Adaptive Management Strategy for achieving the goals of the ISMP. DPS, DAM and DEC will review the final report and DPS, in consultation with the other agencies, will determine whether the goals of the post construction monitoring have been achieved or, if applicable, whether the Final Adaptive Management Strategy must be implemented.

Generic Adaptive Management Strategy

The initial ISMP will include the following components in a Generic Adaptive Management Strategy (Generic Strategy) prepared in consultation with DEC, DAM and DPS staff and, at a minimum, include, the following elements:

- Goals of the ISMP
- Development of a project-specific list of all species included in the Prohibited Invasive Species pursuant to 6 NYCRR Part 575. The purpose of this regulation is to help control invasive species by reducing new infestations and spread of existing populations.
- Management of “expansion”: Focuses only on species of high concern (i.e., Japanese Knotweed, Phragmites, and Purple Loosestrife)
 - Invasive species of high concern that have expanded, under the terms specified in Section 4.0, must be controlled to equal to or less than their original density.
 - Invasive species of high concern that have been newly identified must be eradicated.
- Management of “expansion”
 - Invasive species of high concern that have expanded under the following terms must be controlled
 - Invasive species of high concern that have been newly identified must be eradicated

- In consultation with the agencies, a discussion of possible adaptive management strategies and control measures (e.g., eradication) and where and when they may be required if the post-construction survey identifies an expansion of invasive species of high concern on the ROW caused by construction. This should include consideration of invasive species phenology, control methodology (mechanical techniques, pesticide use etc.) and control objectives.
- Discussion of conditions that may necessitate additional post construction monitoring and the extent and duration of such extended monitoring considering ongoing TROWMP practices.

Upon completion of the post-construction monitoring survey, if the post construction monitoring report shows the aerial extent of invasive species of high concern has expanded as defined in the Generic Adaptive Management Strategy as a result of construction of the Project, then DPS, DAM and DEC will review the final report and DPS, in consultation with the other agencies, will determine whether the goals of the post construction monitoring have been achieved or, if applicable, whether a Final Adaptive Management Strategy Plan must be implemented.