



August 15, 2012

Honorable Jaclyn A. Brillling
Secretary
State of New York Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

RE: Case No. 11-T-0654 Application of New York State Electric & Gas Corporation for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII Section 121a of the Public Service Law for Approval to Construct a 4.9 Mile Natural Gas Transmission Pipeline and Associated Facilities in the Towns of Big Flats and Horseheads and the Village of Horseheads, Chemung County, NY

Dear Secretary Brillling:

On behalf of New York State Electric & Gas Corporation, enclosed is an Invasive Species Survey Report along with a proposed Control Plan for the Seneca West Pipeline Project.

If you have any questions concerning the enclosed report, please do not hesitate to contact me at (607) 762-8881 or by email at cahowland@nyseg.com.

Sincerely,

Carol A. Howland,
Lead Analyst – Compliance

Enclosures

CC: Christopher Hogan, NYSDEC
Michael Saviola, NYS AG & MKTS
John Strub - DPS

**INVASIVE SPECIES SURVEY REPORT
SENECA WEST PIPELINE PROJECT
CHEMUNG COUNTY, NEW YORK**

July 16, 2012

1.0 INTRODUCTION

New York State Electric & Gas Corporation (NYSEG) is proposing the construction of a 4.9-mile (or approximately 25,495 feet), 8-inch natural gas pipeline and associated aboveground facilities located in the Towns of Big Flats and Horseheads, and the Village of Horseheads, Chemung County, NY.

The pipeline will tap Inergy's 16-inch diameter Seneca Lake Gas Storage Facility West Pipeline (Seneca West Pipeline) in the Town of Big Flats, and connect to NYSEG's Elmira distribution system at Gardner Road in the Village of Horseheads. Two new metering and pressure regulating stations (M&R) will be constructed as part of the Project. One M&R site will be situated at Yawger Road and the second M&R site will be located at Gardner Road. In conjunction with this Project, approximately 300 feet of new 20-inch steel distribution pipe will be installed between Gardner Road and the new M&R. The Yawger Road M&R site will contain three small buildings that will house an odorizer and metering & regulating equipment, and aboveground facilities including a filter and pig launcher. The Gardner Road M&R site will contain three small buildings that will house metering and regulating equipment. Additionally, the facility will include a heater with vent stack, a small gas filter, and a pig receiver. In addition to the Inergy tap and M&R stations, the aboveground facilities will include a sectionalizing valve and two blowdown vent pipes to be built within a 10-foot by 12-foot fenced area within the right-of-way easement west of Hickory Grove Road. Lastly, three 20' wide temporary construction access roads are proposed.

The proposed pipeline will parallel the Columbia Gas Transmission right-of-way (ROW) for approximately 19,300-feet, and the Millennium pipeline is located within this same ROW for approximately 9,200-feet. For much of the remaining distance, approximately 5,300-feet, the pipeline will lie within NYSEG's Ridge Road – Broad Street 34.5 kV electric line ROW.

1.1 Definition

Invasive plant species are plants that have been introduced into an environment outside of their native range, where they have few or no natural enemies to limit their spread. When they move into these environments, they are able to colonize the area and dominate or disrupt natural communities. Even if these plants are native elsewhere in the state, they are regarded as invasive vegetation if they colonize areas beyond their natural range of dispersal, such as native woody species that invade a grassland site. The spread of invasive plant species is a significant issue in construction projects that involve land disturbance. Earth moving activities contribute to the spread of invasive species, as does the use of contaminated construction fill, seed, or erosion-control products.

1.2 Purpose

The purpose of this Invasive Species Survey Report is to provide baseline survey data regarding the presence and extent of invasive species within the Project ROW and to suggest best management

practices to be utilized during Project Construction. The objective is to prevent the spread of invasive species within the Project Areas during construction. Preventing the establishment or spread of invasive species relies upon:

- Educating workers about the importance of managing invasive species;
- Properly identifying invasive species; and
- Incorporating measures into the Project that prevent invasive species seeds or other plant parts from establishing new or larger populations.

2.0 LAWS AND REGULATIONS

2.1 Federal

There are many federal laws that contain provisions for the control of invasive species and establishment of native species that apply to Federal land management, stewardship and other activities such as the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended (16 U.S.C. 4701 *et seq.*), Lacey Act, as amended (18 U.S.C. 42), Federal Plant Pest Act (7 U.S.C. 150aa *et seq.*), Federal Noxious Weed Act of 1974, as amended (7 U.S.C. 2801 *et seq.*), and Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). In addition, the Feb 3, 1999, Executive Order 13112 established the National Invasive Species Council to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts caused by invasive species. However, the Federal law applicable to the management of invasive species in this situation is Section 404 of the Clean Water Act (and its implementing regulations).

2.2 New York State

The following Articles of the New York Consolidated Laws regulate management of invasive species in the State of New York. The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Agriculture and Markets has the regulatory authority to implement these laws:

- Inspection and Sale of Seeds (Article 9);
- Integrated Pest Management Program (Article 11);
- Prevention and Control of Disease in Trees and Plants; Insect Pests; Sale of Fruit-bearing Trees (Article 14);
- Forest Insect and Disease Control (Article 9, Title 13);
- Fish and Wildlife (Article 11);
- Fish and Wildlife Management Practices Cooperative Program (Title 5).

3.0 IDENTIFICATION

Table 3-1 shows the DEC "Interim List" (according to habitat) and identifies the invasiveness ranking of each species as determined by the New York State Invasive Species Council. Invasive insect species are also documented in New York, and Table 3-2 lists two insect species of primary interest.

Table 3-1: New York State Invasive Plant Species

Common Name	Scientific Name	Invasiveness Rank*
Floating & Submerged Aquatic Vegetation		
Carolina Fanwort	<i>Cabomba caroliniana</i>	High
Rock Snot (diatom)	<i>Didymosphenia geminata</i>	Not Ranked
Brazilian Elodea	<i>Egeria densa</i>	Not Ranked
Water thyme	<i>Hydrilla verticillata</i>	Very High
European Frog's Bit	<i>Hydrocharis morus-ranae</i>	Very High
Floating Water Primrose	<i>Ludwigia peploides</i>	Very High
Parrot-feather	<i>Myriophyllum aquaticum</i>	High
Variable water milfoil	<i>Myriophyllum heterophyllum</i>	Very High
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	Very High
Brittle Naiad	<i>Najas minor</i>	Moderate
Starry Stonewort (green alga)	<i>Nitellopsis obtusa</i>	Not Ranked
Yellow Floating Heart	<i>Nymphoides peltata</i>	High
Water-lettuce	<i>Pistia stratiotes</i>	Not Assessable
Curly-leaf Pondweed	<i>Potamogeton crispus</i>	Very High
Water Chestnut	<i>Trapa natans</i>	Very High
Shallow Emergent & Littoral Zone Wetlands		
Flowering Rush	<i>Butomus umbellatus</i>	Not Ranked
Japanese Knotweed	<i>Fallopia japonica</i>	Very High
Giant Knotweed	<i>Fallopia sachalinensis</i>	Very High
Yellow Iris	<i>Iris pseudacorus</i>	High
Purple Loosestrife	<i>Lythrum salicaria</i>	Very High
Reed Canarygrass	<i>Phalaris arundinacea</i>	High
Common Reed-nonnative variety	<i>Phragmites australis</i> var. <i>australis</i>	Very High
Upland/Terrestrial – Herbaceous Species		
Garlic Mustard	<i>Alliaria petiolata</i>	Very High
Mugwort	<i>Artemisia vulgaris</i>	High
Brown Knapweed	<i>Centaurea jacea</i>	Moderate
Black Knapweed	<i>Centaurea nigra</i>	Moderate
Spotted Knapweed	<i>Centaurea stoebe</i> ssp. <i>micranthos</i>	High
Canada Thistle	<i>Cirsium arvense</i>	High
Bull Thistle	<i>Cirsium vulgare</i>	Not Ranked
Crown vetch	<i>Coronilla varia</i>	Moderate
Black Swallow-wort	<i>Cynanchum louiseae</i> (<i>nigrum</i>)	Very High
European Swallow-wort	<i>Cynanchum rossicum</i>	Very High
Fuller's Teasel	<i>Dipsacus fullonum</i>	Not Ranked

Table 3-1: New York State Invasive Plant Species

Common Name	Scientific Name	Invasiveness Rank*
Cutleaf Teasel	<i>Dipsacus laciniatus</i>	High
Giant Hogweed	<i>Heracleum mantegazzianum</i>	High
Japanese Stilt Grass	<i>Microstegium vimineum</i>	Very High
Upland/Terrestrial – Vines		
Porcelain Berry	<i>Ampelopsis brevipedunculata</i>	High
Oriental Bittersweet	<i>Celastrus orbiculatus</i>	Very High
Japanese Honeysuckle	<i>Lonicera japonica</i>	Very High
Mile-a-minute Weed	<i>Persicaria perfoliata</i>	Very High
Kudzu	<i>Pueraria montana var. lobata</i>	Very High
Upland/Terrestrial – Shrubs & Trees		
Norway Maple	<i>Acer platanoides</i>	Very High
Tree of Heaven	<i>Ailanthus altissima</i>	Moderate
Japanese Barberry	<i>Berberis thunbergii</i>	Very High
Russian Olive	<i>Elaeagnus angustifolia</i>	Moderate
Autumn Olive	<i>Elaeagnus umbellata</i>	Very High
Glossy Buckthorn	<i>Frangula alnus</i>	High
Border Privet	<i>Ligustrum obtusifolium</i>	High
Amur Honeysuckle	<i>Lonicera maackii</i>	Very High
Shrub Honeysuckles	<i>Lonicera morrowii/tatarica/x bella</i>	Very High
Bradford Pear / Callery Pear	<i>Pyrus calleryana</i>	Moderate
Common Buckthorn	<i>Rhamnus cathartica</i>	Very High
Black Locust	<i>Robinia pseudoacacia</i>	Very High
Multiflora Rose	<i>Rosa multiflora</i>	Very High

Source: NYSDEC (2011) , Cornell University 2011

Table 3-2: New York State Invasive Insect Species of Interest

Common Name	Scientific Name
Emerald Ash Borer	<i>Agrilus planipennis</i>
Asian Longhorned Beetle	<i>Anoplophora glabripennis</i>

* Invasiveness Rankings serve as an “invasiveness assessment tool” that consider known invasive species populations and potential distribution within New York State; ecological impacts; biological characteristics and dispersal ability; distribution within both its native landscape and other places it has been introduced; difficulty of detection and control; and likelihood of hybridizing (NYISC, 2010).

Invasiveness Ranks are calculated on ranking forms to yield numerical scores. Higher scores reflect a higher ecological risk associated with a particular invasive species and lead to an invasiveness assessment as follows:

Table 3-3: Invasiveness Rankings

Relative Maximum Score	Rank	Invasiveness Assessment
>80.00	Very High	Prohibited
70.00 – 80.00	High	Prohibited
50.00 – 69.99	Moderate	Regulated
40.00 – 49.99	Low	Unregulated
<40.00	Insignificant	Unregulated

Source: NYISC, 2010

4.0 BASELINE MONITORING

A baseline survey was conducted by URS Biologists of the entire Project Area on May 9, 2012. In addition to investigating the immediate survey area/ROW, survey personnel investigated the presence of existing invasive species infestations located outside of, and adjacent to, the survey area/ROW as allowed by visual observation. Survey teams did not enter properties for which NYSEG has not obtained access, or which are not parts of the Project. Anywhere adjacent infestation was noted, the information does not include GPS locations; location information was gleaned by marking up field maps where applicable.

A summary of the results of those investigations are as follows.

4.1 Field Investigation

URS staff biologists conducted field surveys throughout the proposed project corridor, identifying and documenting areas where invasive species were prevalent. GPS positions were recorded and photos were taken at each location. In forested areas, field staff walked the edges of the project corridor to look for evidence of invasive insects (pitted bark, exit holes, serpentine galleries, bark splitting, epicormic shoots and canopy die-back).

4.2 Results

The following invasive species were found within the project corridor: amur and shrub honeysuckle, multiflora rose, garlic mustard, reed canary grass, Japanese knotweed, and cutleaf teasel. Honeysuckle and multiflora rose are very abundant and distributed evenly throughout the project corridor. Garlic mustard occurs in moderate abundance throughout the project corridor, with larger populations at road crossings. Small populations of teasel are distributed evenly throughout the project corridor. Discrete populations of Japanese knotweed and reed canary grass occur in several specific locations. The invasive plant species observed occur primarily along the edges of the project corridor, with small populations/single plants occurring periodically within the existing ROW. No evidence of invasive insects was observed, nor were any populations of invasive species known to be harmful to man (i.e., Giant Hogweed) noted within the study area. Giant Hogweed is a noxious weed. Its sap, in combination with moisture and sunlight, can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness.

The locations of invasive plant species populations are documented on the accompanying drawing in Attachment A, and photos of these locations can be viewed in the attached photographic log (See Attachment B). Because honeysuckle, multiflora rose, garlic mustard and cutleaf teasel are abundantly distributed evenly throughout the entire project corridor and not necessarily concentrated in specific locations, the photographic log shows representative views along the project corridor and not every specific location. Japanese knotweed and reed canary grass grow in several discrete locations, which are documented within the photographic log. Table 4-1 shows invasive species distribution according to land use/habitat type.

Table 4-1: Invasive Species by Land Use/Habitat Type

Location	Land Use/Habitat Type	Invasive Species Observed	Relative Abundance	Corresponding Photos
Gardner Road M&R – Oak Hill Road	Residential/ Mixed Forest	Honeysuckle Multiflora Rose Cutleaf Teasel	Abundant Abundant Sparse	1-3 1-3 2
Oak Hill Road – Hickory Grove Road	Residential/ Mixed Forest/ Shrubland	Honeysuckle Multiflora Rose Cut-Leaf Teasel Garlic Mustard	Abundant Moderate Moderate Moderate	6 6 4 4, 5
Hickory Grove Road – Prospect Hill Road	Residential/ Mixed Forest/ Shrubland	Honeysuckle Multiflora Rose Cut-Leaf Teasel Reed Canary Grass	Abundant Abundant Moderate Sparse	7-11, 13-16 7, 9, 11, 15 7, 8, 12, 15, 16 10, 11
Prospect Hill Road – Barnes Hill Road	Residential/ Mixed Forest/ Shrubland	Honeysuckle Multiflora Rose Cut-Leaf Teasel Garlic Mustard	Abundant Abundant Moderate Moderate	17-20 17, 18, 21 22 21-24
Barnes Hill Road – Chambers Road	Mixed Forest/Shrubland/ Cropland	Honeysuckle Multiflora Rose Cut-Leaf Teasel Reed Canary Grass Garlic Mustard Japanese Knotweed	Abundant Moderate Moderate Sparse Moderate Moderate	25-27, 30 25-29 31, 34, 36, 39, 32 25, 26 35-38
Chambers Road – Upson Road	Mixed Forest/ Shrubland/ Cropland	Honeysuckle Multiflora Rose	Abundant Abundant	40 40
Upson Road – Yawger Road M&R	Mixed Forest	Honeysuckle Multiflora Rose	Moderate Moderate	41 41

5.0 CONSTRUCTION PHASE MANAGEMENT

5.1 Recommendations for Invasive Species Control during Construction

- a. Environmental Inspectors should recognize invasive species and be aware of the areas of invasive species identified within the project corridor.
- b. Soil disturbance should be minimized through the use of existing roads and planned access roads, placement of (clean) mats through wetlands and other sensitive areas, and by limiting points of access to the project corridor.
- c. Invasive species populations should be avoided when feasible to minimize the spread of invasive species during soil disturbance activities. Excavated material from areas containing invasive plants should be reused within the exact limits of the infestation.
- d. All equipment and matting should enter and leave the Project area clean.
- e. Prior to moving equipment out of an infested area and then into a non-infested area soils, seeds, plant parts, or invertebrates should be cleaned from exterior surfaces, to the extent practicable, to minimize the risk of transporting propagules.
 - i. Cleaning methods may include: brush, broom, or other hand tools (without water), or high pressure air.
 - ii. Preferred locations for cleaning are those where: invasive species are already established or as near as practicable to the infested area and/or areas that are easily monitored and controlled.
 - iii. Equipment, vehicle or trailer cleaning should not be conducted in or near waterways as it may promote the spread of invasives downstream.
- f. Stabilization of disturbed soils using erosion control/stormwater management technical standards as soon as feasible is recommended to minimize invasive species establishment.
- g. All imported materials shall be invasive species free.
- h. Non-invasive or native seed cover for crops or revegetation is recommended.

5.2 Recommendations for Invasive Species Management and Inspection Monitoring During Construction

- a. Any personnel working in the project corridor should inspect and clean clothing, footwear and gear for soils, seeds, plant parts, and invertebrates before and after construction related activities. Preferred cleaning and disposal locations are those where invasive species are already established and/or areas that are easily monitored for new infestations due to the

cleaning activity. Disposal can alternatively be conducted through burying materials where applicable.

- b. Staging areas should be located and utilized in areas that are free from invasive plants to avoid spreading seeds and other viable plant parts.
- c. Environmental Inspectors should monitor day-to-day activities and check for new infestations of invasive species or the spread of existing populations.

5.3 Recommendations for Managing Invasive Species in the Transport of Materials To and From the Construction Site

- a. To the extent practicable, steps should be taken to avoid the movement of invasives to non-infested areas during the transportation activities of soil, wood products, erosion control materials, and any other pipeline associated materials, such as:
 - i. Excluding infested areas from equipment travel corridors and staging areas to the extent practicable.
 - ii. Carrying out work under conditions that minimize the risk of spread, *e.g.* frozen ground, snow cover, seed/propagules absence, etc.
 - iii. Compliance with DEC regulations regarding the movement of wood / firewood.
- b. Prior to transporting materials, the load should be secured through the use of tarpaulins, rope or plastic sheets, and reduce the exposure of materials to weather elements to limit the spread of invasive species.
- c. Stock piles should be managed to limit the spread of invasive species through the planting of cover crops, fast-growing grasses, and/or cover exposed soils with plastic sheeting.

6.0 REFERENCES

Association of Massachusetts Wetland Scientists. 2012. Beetles on the Loose! The Purple Loosestrife Bio-monitoring Control Project. http://www.amws.org/loosestrife_project.html

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