

New York State Electric & Gas

2025 Restoration Monitoring Report

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York
NYSDEC Site Number: 862009

March 2026

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Prepared By:

Arcadis of New York, Inc.
100 Chestnut Street, Suite 1020
Rochester
New York 14604
Phone: 585 385 0090
Fax: 585 546 1973

Prepared For:

New York State Electric & Gas
18 Link Drive
Binghamton
New York 13904

Our Ref:

30269983

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Contents

Acronyms and Abbreviations	iii
1 Introduction	1
1.1 Background	1
1.2 Objectives	2
2 Site Restoration	3
3 Site Improvements	4
4 Completed Post-Construction Restoration Corrective Actions	5
5 Restoration Monitoring and Sampling	6
5.1 Assessment Methods	6
5.2 Performance Criteria	6
5.3 Monitoring Activities and Results	6
5.3.1 Vegetation Monitoring	7
5.3.1.1 Herbaceous Ground Cover	7
5.3.1.2 Shrubs	7
5.3.1.3 Trees	8
5.3.1.4 Aquatic Vegetation	8
5.3.1.4.1 Aquatic Vegetation Area 1	8
5.3.1.4.2 Aquatic Vegetation Area 2	8
5.3.1.4.3 Aquatic Vegetation Area 3	9
5.3.1.4.4 Aquatic Vegetation Area 4	9
5.3.1.4.5 Aquatic Vegetation Area 5	9
5.3.1.4.6 Aquatic Vegetation Area 6	9
5.3.1.4.7 Aquatic Vegetation Summary	9
5.3.2 Restored Bank Qualitative Assessment	10
5.3.3 Aquatic Wildlife Observations	10
6 Conclusion and Discussion	11
7 Recommendations	13
8 References	14

Tables

Table 1 – Cover Class System

Table 2a – Upland Vegetation Monitoring Quadrat Data

Table 2b – Bank Vegetation Monitoring Quadrat Data

Table 3a – Submerged Aquatic Vegetation – Area 1

Table 3b – Submerged Aquatic Vegetation – Area 2

Table 3c – Submerged Aquatic Vegetation – Area 3

Table 3d – Submerged Aquatic Vegetation – Area 4

Table 3e – Submerged Aquatic Vegetation – Area 5

Table 3f – Submerged Aquatic Vegetation – Area 6

Table 4 – Coverage Percentage Summary for Each Area Over Time (in-text)

Figures

Figure 1 – Site Location Map

Figure 2 – Restoration Areas

Figure 3 – 2025 Vegetation Monitoring Locations

Appendices

Appendix A – Restoration Monitoring Photographs

Acronyms and Abbreviations

%	percent
Arcadis	Arcadis of New York, Inc.
MGP	Manufactured Gas Plant
NYSDEC	New York State Department of Environmental Conservation
NYSEG	New York State Electric & Gas
RDR	Remedial Design Report
SAV	submerged aquatic vegetation
Site	Penn Yan Former Manufactured Gas Plant Site

1 Introduction

This Restoration Monitoring Report summarizes the 2025 restoration monitoring results for the restored upland, bank, and aquatic portions of the New York State Electric & Gas (NYSEG) Penn Yan Former Manufactured Gas Plant (MGP) Site (Site). The Site is located on Water Street, between Liberty Street and Main Street and the Keuka Lake Outlet, in the Village of Penn Yan, Town of Milo, Yates County, New York (Figure 1).

The Restoration Plan (Remedial Design Report [RDR] Appendix G [AECOM 2015]) requires post-construction monitoring and maintenance of the restored upland, bank, and submerged aquatic vegetation (SAV) bed areas to evaluate restoration performance and to identify proposed maintenance and/or corrective actions (if necessary) to remain compliant. This report summarizes data collected during the fifth post-construction restoration monitoring event, which was conducted on September 3 and 4, 2025.

1.1 Background

The Site is approximately 0.889 acres in size and is occupied by a vacant masonry building. The remaining land is comprised of an engineered grass-covered area, an asphalt driveway and gravel parking area, and a section of riparian land along the Keuka Lake Outlet. The offsite project area, which is adjacent and downstream of the Site, comprises approximately 1.7 acres of submerged sediments beneath the Keuka Lake Outlet (Class C waterway) restored with a 6-inch-thick geoweb infilled with 1 inch of AquaGate® and overlain by 5 inches of Aquablok® and a minimum of 1 foot of clean soil (AECOM 2023a).

Sevenson completed the Site remedy between July 2015 and May 2020 in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved RDR for the Site (AECOM 2015) and Design Modifications 001-004 (AECOM 2016a,b; 2018a,b).

The Restoration Plan (RDR Appendix G [AECOM 2015]) requires post-construction monitoring, maintenance, and reporting of the restored upland area (approximately 0.76 acres), restored bank area (approximately 1,800 square feet along the Keuka Lake Outlet), and restored SAV and near-shore emergent vegetation bed areas, collectively known as aquatic vegetation (remediated sediment areas within the Keuka Lake Outlet; approximately 1.7 acres), shown on Figure 2. The Restoration Plan specified annual monitoring during each of the first five full growing seasons following Site restoration construction and annual reports to assess vegetative community recovery. Sevenson completed upland, bank, and aquatic vegetation restoration per the Restoration Plan (RDR Appendix G [AECOM 2015]) by July 2, 2020, with any deviations detailed in the Final Engineering Report (AECOM 2023a).

Additionally, the Site Management Plan (AECOM 2023b) stated that a one-time, post-construction inspection to assess biotic community reestablishment within the Keuka Lake Outlet remediated areas would be performed prior to the first Periodic Review Report. The inspection was completed on August 30 and 31, 2022, and results of the inspection were presented in the 2022 Restoration Monitoring Report (Arcadis of New York, Inc. [Arcadis] 2023) and summarized in the first Periodic Review Report (Arcadis 2024). Inspection results indicated successful benthic community re-establishment in the restored sediment areas.

1.2 Objectives

The objectives of this report are to:

- Summarize the Site restoration;
- Summarize the Site restoration evaluation methods;
- Summarize the restoration monitoring data collected and compare the data/observations to performance metrics;
- Evaluate the Keuka Lake Outlet restored bank stability; and
- Summarize the completed and/or recommended corrective actions and proposed future restoration monitoring.

To document achieving the objectives, this report presents:

- Site-wide data collected during the 2025 restoration monitoring event; and
- Conclusions and monitoring modification recommendations, as appropriate.

2 Site Restoration

In general, the RDR (AECOM 2015) required post-construction vegetative cover material installation to reestablish the upland, bank, and aquatic Site areas shown on Figure 2. The remediation contractor restored the upland area on August 21, 2019, and the bank area on September 19 and 20, 2019, by placing a clean soil layer and applying a riparian seed mix to establish a native vegetation cover. In addition to the riparian seed mix, the bank area restoration included planting the following within the approximately 1,800-square-foot area:

- Five shrub species (gray dogwood [*Cornus racemosa*], red-osier dogwood [*Cornus stolonifera*], pussy willow [*Salix discolor*], speckled alder [*Alnus rugosa*], and elderberry [*Sambucus canadensis*]) for a total of 25 shrubs, which were planted on December 13, 2019; and
- Three trees (two black walnut [*Juglans nigra*] and one silver maple [*Acer saccharinum*]), which were planted on July 2, 2020.

The remediation contractor planted aquatic vegetation beds from June 21 through July 12, 2017, and May 27 and 28, 2020, within six near-shore areas covering approximately 1.7 acres (AECOM 2023a). More than 18,000 individual plant plugs, comprising five aquatic plant species, were planted between 2017 and 2020 and included white water-lily (*Nymphaea odorata*), long-leaved pondweed (*Potamogeton nodosus*), common arrowhead (*Sagittaria latifolia*), soft-stemmed bulrush (*Schoenoplectus tabernaemontani*), and wild celery (*Valisneria americana*). SAV restoration area limits are shown on Figure 2.

3 Site Improvements

The adjacent property owner (to the west) obtained permission from NYSEG to allow a kayak and bicycle rental company to operate in the southwest corner of the Site and to install a gravel parking lot on the Site. To comply with the Site Management Plan (AECOM 2023b), NYSEG submitted a Request to Import Material form to the NYSDEC project manager, which provided a project narrative, sieve information on proposed imported materials, and a project design map showing the limits of the new gravel parking lot. The NYSDEC project manager approved this submittal (NYSDEC 2024), and the gravel parking lot was installed in August 2024 (Figures 2 and 3 show the updated gravel parking lot footprint). The post-construction Site cover was not breached or compromised during this work. This Site improvement effectively reduced the restored upland area required to be monitored/maintained by the Restoration Plan (RDR Appendix G [AECOM 2015]).

During the 2025 restoration monitoring event, Arcadis observed construction occurring opposite the Site at the Lake Street Park on the southern side of the Keuka Lake Outlet. The Village of Penn Yan is revitalizing the park, which includes the addition of a new waterfront dock and watercraft landing area. Both in-water and upland construction activities were observed in and near SAV planting Area 6 (see Appendix A, Photo 12). In-water work was observed to involve the use of turbidity curtains and the installation of pylons for what appeared to be the future dock within Area 6. Due to this construction, some monitoring locations were moved for portions of Area 6.

NYSEG was not aware of this work until Arcadis reviewed the Site photographs during preparation of this report and notified NYSEG. NYSEG notified the NYSDEC of this work via email on January 21, 2026. NYSEG is currently contacting the Village of Penn Yan to acquire details of the work to prepare a summary for submission to the NYSDEC.

4 Completed Post-Construction Restoration Corrective Actions

The following post-construction restoration corrective actions were completed at the Site to meet the desired performance standards detailed in the Restoration Plan (RDR Appendix G [AECOM 2015]):

Post-Construction Restoration Monitoring Year 3 (2023):

- Arcadis planted 13 replacement shrubs on September 6, 2023, to account for shrub mortality observed during the 2022 restoration monitoring event (Arcadis 2023). Five red-osier dogwood shrubs, five elderberry shrubs, and three pussy willow shrubs were planted to achieve a total of 25 shrubs planted and alive and to meet the 100 percent (%) survival performance standard requirement in the RDR (AECOM 2015).
- Arcadis overseeded bare and/or sparsely vegetated portions of the upland area with a native grass seed mix and cover seed on September 6, 2023 (Arcadis 2023). The seed mix specified for this upland area included a native mix of warm and cool season grasses suitable for this region. The mix was obtained from Ernst Conservation Seeds and contained 35% big bluestem (*Andropogon gerardii*), 30% Indiangrass (*Sorghastrum nutans*), 20% switchgrass (*Panicum virgatum*), and 15% Virginia wildrye (*Elymus virginicus*). This native grass mix was applied at approximately 28 pounds per acre to overseed, and a cover seed of grain rye (*Secale cereale*) was applied at approximately 60 pounds per acre. The seeded area was approximately 1,160 square feet, and natural straw was applied for protection.
- Maintenance visits were completed on September 14, September 20, and November 13, 2023, to ensure adequate watering was applied and the plantings and seeded cover were healthy.

Post-Construction Restoration Monitoring Year 4 (2024):

- Arcadis physically removed Spotted knapweed from the restored upland area on September 4, 2024.

Post-Construction Restoration Monitoring Year 5 (2025):

- Arcadis planted 12 clusters of live stakes on April 14, 2025. Each cluster consisted of three live stakes of one species each (pussy willow, red osier dogwood, elderberry). Additionally, Arcadis physically removed Canadian thistle (*Cirsium arvense*) within the bank area.
- Arcadis physically removed Canadian thistle in the bank area and spotted knapweed in the upland portion of the Site during a Site visit conducted on May 28, 2025.
- On September 3, 2025, Arcadis' licensed commercial applicator applied a glyphosate-based herbicide (1.5% AquaNeat® solution) to treat spotted knapweed and mugwort (*Artemisia vulgaris*) in the upland area and Canadian thistle in the bank area.

5 Restoration Monitoring and Sampling

Arcadis conducted Site restoration monitoring at the upland, bank, and aquatic vegetation areas, which included the following:

- A quantitative total % vegetation cover evaluation;
- A tree and shrub survival evaluation;
- A restored bank stability qualitative assessment; and
- Wildlife observations.

5.1 Assessment Methods

Arcadis conducted vegetative cover quantitative assessments by placing a 1-square-meter quadrat at three random locations within both the seeded upland and bank Site areas and five quadrats along a representative transect within each aquatic vegetation planting area (Figure 3) to assess:

- overall vegetative cover;
- percent coverage by species;
- predominant species observations;
- invasive species observations; and
- signs of stress or herbivory impacts.

Individual shrub and tree counts were performed to assess survivability. The restored bank was evaluated for evidence of significant erosion, excessive settlement, and/or drainage issues that may impact the bank stability. Direct habitat and wildlife observations were made to assess the general wildlife community and the restored habitat's ability to support aquatic life and other wildlife.

5.2 Performance Criteria

The performance criteria specified in the Restoration Plan (RDR Appendix G [AECOM 2015]) for the fifth year of monitoring (i.e., 2025) are as follows:

- A minimum vegetative cover of 95%;
- A tree and shrub survival rate of 100%;
- No invasive plant species currently listed as prohibited on the list of New York State Prohibited and Regulated Invasive Plants (NYSDEC 2014); and
- Less than 5% of any other invasive plant species not identified as prohibited.

5.3 Monitoring Activities and Results

Arcadis field personnel conducted the 2025 post-construction restoration monitoring and bank stability observation on September 3 and 4, 2025. Monitoring activities and results are summarized in the following subsections.

5.3.1 Vegetation Monitoring

Arcadis performed an herbaceous ground cover, tree vegetative cover, and aquatic vegetation cover quantitative assessment at the Site during the restoration monitoring event. Vegetation assessment observations and results are discussed in the following subsections.

5.3.1.1 Herbaceous Ground Cover

Arcadis field personnel conducted restored upland and bank area herbaceous ground cover monitoring at three randomly placed 1-square-meter quadrat locations in each area (Figure 3 – UP-1 through UP-3 and BK-1 through BK-3). Individual observed species were counted to provide the overall species richness (i.e., total number of species present within the vegetated habitat) and assigned an individual species cover. Total % cover was visually estimated, using a cover class system (Table 1) based on the Daubenmire system (Barbour et al 1999), for each species identified in each quadrat. This revised cover class system provides a refined % cover estimation by adding two cover classes and modifying the cover percentage range into seven classes. The % cover type was also visually estimated for each quadrat by assigning an absolute % cover value (ranging from 0% to 100%), as viewed from above, that does not account for overlapping cover types. The observed cover type categories included vegetation, bare soil, woody debris, and boulders/rock. This data was used to calculate the target species % cover (i.e., native species), invasive species % cover, and total vegetation % cover in the herbaceous layer.

Quadrat photographs and general Site condition photographs are included in Appendix A (see Photos 1 through 12). Summarized vegetation monitoring data, by quadrat plot, for the upland and bank restoration areas are provided in Table 2a and Table 2b, respectively.

Upland area quadrat results (UP-1, UP-2, and UP-3) indicate that overall vegetative cover was approximately 94%. The relative target species % cover (i.e., native species) was approximately 68%, with the remaining 26% accounting for naturalized or introduced species. Invasive species observed within the quadrats included spotted knapweed (*Centaurea stoebe*), which accounted for approximately 0.8% of the relative % cover. The species richness ranged from six to 12 herbaceous species observed. Birds-foot trefoil (*Lotus corniculatus*), red fescue (*Festuca rubra*), and perennial rye (*Lolium perenne*) were the three dominant herbaceous plant species observed within the quadrats. Some areas of upland vegetation appeared to have been impacted by human, dog, or other wildlife activity (see Photo 3).

Bank area quadrat results (BK-1, BK-2, and BK-3) indicate that overall vegetative cover was approximately 94%. The relative target species % cover was approximately 91%, with the remaining 3% accounting for naturalized or introduced species. Invasive species observed within the quadrats included Canadian thistle, which accounted for approximately 5%. The species richness ranged from 11 to 14 herbaceous species observed. Switch grass, red fescue, and common rush (*Juncus effusus*) were the three dominant herbaceous plant species observed within the quadrats.

5.3.1.2 Shrubs

Field personnel conducted a planted stock and natural recruit meander survey in the bank area during the restoration monitoring event. Shrubs previously installed at the Site include the initial 25 shrubs planted by Severson in 2019, the 13 replacement shrubs planted by Arcadis in September 2023, and the 12 live stake

clusters installed by Arcadis in 2025. Of the shrubs previously planted, the total number of alive planted container and live stakes (as a three-stake clump) was 26.

No speckled alder or grey dogwood shrub plantings were observed, despite being planted during Site restoration activities. Nine recruited shrubs were observed in the bank, which included three eastern cottonwood (*Populus deltoides*), three unidentified willow species (*Salix spp*), two elderberry, and one staghorn sumac (*Rhus typhina*).

The 26 surviving shrubs, combined with nine natural recruits, amount to a total of 35 alive shrubs, which is more than a 100% survival rate compared to the initial 25 shrubs planted during remedial activities.

Beaver activity was noted on several willows. Live stakes indicated about a 46% survival rate. Specifically, elderberry live stakes had a survival rate of approximately 58% with seven of the 12 individual live stakes remaining alive.

The bank area condition was slightly improved when compared to 2024 observations. However, shrub survival could potentially be impacted by human, dog, and other wildlife activity (beaver damage was observed) due to the proximity of this area to a public access trail and the expansion of the canoe and kayak rental business on the property.

5.3.1.3 Trees

During the restoration monitoring event, Arcadis personnel observed two black walnut trees and one silver maple tree (i.e., consistent with the tree types that AECOM planted in 2019) in the bank area. The trees appeared to be in good health, fully leaved, and exhibited no signs of stress or herbivory.

5.3.1.4 Aquatic Vegetation

Arcadis field staff established one representative transect in each aquatic vegetation bed planting area. As shown on Figure 3, five individual quadrats were assessed along each transect to estimate the planted and naturally occurring aquatic plant species vegetative cover and to evaluate the substrate. In addition, field personnel measured and recorded water depths and photographed each location. Tables 3a through 3f summarize the observed aquatic vegetation species within the six established Keuka Lake Outlet planting areas. Photographs 13 to 19 in Appendix A provide a representative quadrat picture from each planting area.

5.3.1.4.1 Aquatic Vegetation Area 1

Area 1 quadrat results (Table 3a) indicate that the overall vegetative cover was approximately 81%. The relative target species % cover was approximately 74%. Eurasian watermilfoil (*Myriophyllum spicatum*) was the only invasive species observed within the quadrats and accounted for approximately 26% of the relative cover. The species richness ranged from three to six species observed within the quadrats. Six distinct species were observed across the Area 1 transect. Water star grass (*Heteranthera dubia*) and Eurasian watermilfoil were the two dominant herbaceous plant species observed.

5.3.1.4.2 Aquatic Vegetation Area 2

Area 2 quadrat results (Table 3b) indicate that the overall vegetative cover was approximately 84%. The relative target species % cover was approximately 85%. Eurasian watermilfoil was the only invasive species observed within the quadrats and accounted for approximately 15% of the relative cover. The species richness ranged from

five to seven species observed within the quadrats. Nine distinct species were observed across the Area 2 transect. White water-lily and Eurasian watermilfoil were the two dominant herbaceous plant species observed.

5.3.1.4.3 Aquatic Vegetation Area 3

Area 3 quadrat results (Table 3c) indicate that the overall vegetative cover was approximately 77%. The relative target species % cover was approximately 81%. Eurasian watermilfoil was the only invasive species observed within the quadrats and accounted for approximately 19% of the relative cover. The species richness ranged from four to nine species observed within the quadrats. Eleven distinct species were observed across the Area 3 transect. White water-lily and Eurasian watermilfoil were the two dominant herbaceous plant species observed.

5.3.1.4.4 Aquatic Vegetation Area 4

Area 4 quadrat results (Table 3d) indicate that the overall vegetative cover was approximately 70%. The relative target species % cover was approximately 77%. Eurasian watermilfoil and curly pondweed (*Potamogeton crispus*) were the only invasive species observed within the quadrats and accounted for approximately 23% of the relative cover. The species richness ranged from three to seven species observed within the quadrats. Twelve distinct species were observed across the Area 4 transect. White water-lily and wild celery were the two dominant herbaceous plant species observed.

5.3.1.4.5 Aquatic Vegetation Area 5

Area 5 quadrat results (Table 3e) indicate that the overall vegetative cover was approximately 77%. The relative target species % cover was approximately 88%. Eurasian watermilfoil was the only invasive species observed within the quadrats and accounted for approximately 12% of the relative cover. The species richness ranged from five to seven species observed within the quadrats. Nine distinct species were observed across the Area 5 transect. Long-leaved pondweed, wild celery, and water star grass were the three dominant herbaceous plant species observed.

5.3.1.4.6 Aquatic Vegetation Area 6

Area 6 quadrat results (Table 3f) indicate that the overall vegetative cover was approximately 58%. The relative target species % cover was approximately 87%. Eurasian watermilfoil was the only invasive species observed within the quadrats and accounted for approximately 13% of the relative cover. The species richness ranged from three to five species observed within the quadrats. Seven distinct species were observed across the Area 6 transect. Wild celery and water star grass were the two dominant herbaceous plant species observed.

5.3.1.4.7 Aquatic Vegetation Summary

Aquatic vegetation results indicate:

- Six distinct submerged plant species, including two invasive species (Eurasian watermilfoil and curly pondweed), four emergent plant species (soft-stemmed bulrush, umbrella flat sedge [*Cyperus diandrus*], three-square bulrush [*Schoenoplectus pungens*], and devil's beggar ticks [*Bidens frondosa*]), and three floating aquatic plant species (duckweed [*Lemna spp*], white water-lily, and long-leaved pondweed), were observed in the SAV planting areas.
- Each of the five planted SAV species were observed either along the restored shoreline or within the planting area transects.

- The existing SAV cover in the planting areas ranged from 58% to 84%.
- Eurasian watermilfoil was observed across each planting area at relative coverages ranging from approximately 12% to 26%. These coverages were higher than those observed in 2024 (1% to 9%). The proposed remediation areas pre-dredging baseline assessment identified a coverage dominance of Eurasian watermilfoil, indicating that this species previously inhabited the areas and is not a result of remediation (AECOM 2015).
- Increased observations of filamentous green algae, initially observed during the 2023 Restoration Monitoring event, were not observed during the 2024 or 2025 restoration monitoring events.

5.3.2 Restored Bank Qualitative Assessment

The restored bank qualitative assessment indicated that the overall vegetative cover spatial distribution was high throughout the restored bank area. Native shrub natural recruitment was observed, and herbaceous ground cover was diverse and in good vigor for those species that were still in bloom or actively growing. Field personnel observed one minor soil erosion area located at the most southwestern edge of the restored vegetated bank area. This minor soil erosion area is most likely influenced by surface water runoff from the adjacent paved parking lot upgradient of the restored bank area. The near-shore emergent vegetation and riparian vegetation communities were observed to be healthy and well-established, except for the construction disturbance noted in Area 6.

5.3.3 Aquatic Wildlife Observations

Similar to previous wildlife observations, several sunfish species (i.e., bluegill [*Lepomis macrochirus*] and pumpkinseed [*Lepomis gibbosus*]), along with larger macroinvertebrates (i.e., crayfish [*Decapoda*]), were observed within the near-shore SAV areas during the restoration monitoring event. A great blue heron (*Ardea herodias*) was observed during the monitoring event. Based on the existing near-shore habitat and aquatic vegetation present, additional wildlife species, such as passerine birds (*Passeriformes*), common migratory birds, amphibians, and other fish species may utilize these restored habitats. Pioneering aquatic plant species and those planted during Site restoration work are performing well to provide a diverse aquatic habitat for fish cover and wildlife.

6 Conclusion and Discussion

The 2025 restoration monitoring event constitutes the fifth year of post-construction restoration monitoring required by the RDR (AECOM 2015). The table below provides summary information for vegetative and invasive coverages for the designated restoration areas (upland, bank, and SAVs).

Table 4 – Coverage Percentage Summary for Each Area Over Time

Area	Coverage Type	Year				
		2021	2022	2023	2024	2025
Upland	Vegetation	Data not available	90%	90%	90%	94%
	Invasive		6%	0.8%	3%	0.8%
Bank	Vegetation		98%	94%	94%	94%
	Invasive		0%	18%	13%	5%
SAV	Vegetation		63-84%	40-81%	49-72%	58-84%
	Invasive		3-25%	1-13%	0.7-9%	12-26%

The 2025 restoration monitoring results indicate satisfactory vegetation cover that is just less than the 95% performance criteria specified in the RDR (AECOM 2015) for both the upland and bank areas. When compared to prior years, the 2025 vegetative coverage percentages indicate stable, and in the case of the upland area, increased coverage. The restored upland area was stable, with no observed erosion, and exhibited high vegetative cover spatial distribution. The 2024 parking lot expansion and Site usage by watercraft/bike rental customers observed in the upper and lower portion of the restored upland area appear to stress vegetation, potentially reducing overall herbaceous cover in certain areas, and likely contributes to vegetation coverages that are slightly less than the RDR performance criteria. The restored bank area was stable, except for one small erosional area, and exhibited a diverse seeded species mix, along with some remaining planted shrubs within the understory. The 2025 restoration monitoring results indicate invasive species coverage that meets the performance criteria identified in the RDR (less than or equal to 5%). When compared to prior years, the 2025 invasive species coverage percentages indicate an overall decreased coverage. Spotted knapweed, mugwort, and Canadian thistle, each New York State-regulated invasive plant species (NYSDEC 2014), were observed throughout the restored areas. Spotted knapweed and mugwort were observed in the upland restoration area, at coverages slightly less than what was observed in 2024, and Canadian thistle was observed in the bank restoration area, exhibiting approximately the same coverage as during 2024 observations. Canadian thistle was physically removed from the bank area during the April 2025 and May 2025 Site visits, and spotted knapweed was physically removed during the May 2025 Site visit. During the September 2025 Site visit, an herbicide application, using a glyphosate-based solution (1.5% AquaNeat® Solution), was used to treat spotted knapweed and mugwort in the restored upland area and Canadian thistle in the restored bank area.

Observed shrubs in the bank area totaled 35 plants, which exceeds the RDR (AECOM 2015) performance criteria of 25 plants.

Three trees planted along the bank were healthy and did not exhibit signs of stress, meeting the performance criteria in the RDR (AECOM 2015).

The 2025 restoration monitoring results indicate that SAV coverage ranges from 58% to 84%, with an average of 75%, and is less than the 95% criteria. Baseline data, collected before remedy implementation, identifying

vegetation coverage percentages that would allow for a direct comparison to evaluate the restoration do not exist, but completing the SAV restoration plan detailed in the RDR (AECOM 2015) would have resulted in an initial planting density of approximately 80%. However, restoration monitoring has shown that the SAV beds indicate a diverse native and non-native species community similar to what was observed during the baseline assessment. Furthermore, boat traffic in the Keuka Lake Outlet from powered watercraft and the bike/boat rental company have the potential to affect the vegetative coverage in the SAVs. Invasive Eurasian watermilfoil was observed in the restored SAVs but at a lower frequency/coverage relative to the baseline assessment, where it was observed to be a dominant species in most areas identified for remediation. Biological drift from upstream plants within the Keuka Lake Outlet would make it difficult to meet the desired performance standard for invasive Eurasian watermilfoil. Additionally, invasive starry stonewort (*Nitellopsis obtusa*) may also become established in the restored subaquatic areas as it has been observed in Keuka Lake. Manual pulling or chemical treatments could be used to reduce the invasive plant species presence; however, this is not recommended due to the risk of continued re-invasion from Keuka Lake, and in the case of Eurasian watermilfoil, the frequency/coverage is less than what was observed during the baseline assessment. In addition, the biotic inspection, which consisted of a benthic invertebrate community assessment in each SAV to determine whether the benthic community had re-colonized after restoration, indicated that the SAVs have been re-colonized and the invertebrate community results are within the expected ranges for this type of system (i.e., lake outlet waters) in New York State (Arcadis 2024).

Changes in Site usage since remedy completion, including a watercraft and bike rental company operating on the Site, associated pedestrian traffic for waterway access and access to the walking paths and pedestrian bridge, and the significant parking lot expansion, has had an undeniable impact on the restoration performance of the upland, bank, and SAV areas. Based on the existing near-shore habitat and aquatic vegetation present, wildlife species, such as passerine birds, common migratory birds, amphibians, and various fish species may utilize these restored habitats. During the restoration monitoring event, several sunfish species (i.e., bluegill, and pumpkinseed), along with larger macroinvertebrates (i.e., crayfish) and a great blue heron, were observed within the near-shore SAV areas. Pioneering aquatic plant species and those planted during upland/bank Site restoration work are performing well to provide a diverse aquatic habitat for fish cover and upland habitat for wildlife.

7 Recommendations

With the completion of the fifth year of post-construction restoration monitoring required by the RDR (AECOM 2015) and the information summarized herein, Arcadis proposes that NYSEG has satisfactorily met its obligations for Site restoration monitoring, maintaining post-construction restoration, and providing a suitable aquatic and upland habitat for native plant and animal species at the Site, to the best of its ability, and in consideration of Site usage changes and human/animal activity, recommends that restoration monitoring be discontinued.

8 References

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Tables

Table 1
Cover Class System
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



% Cover Classes		
Range of Cover (%)	Cover Class Midpoint	Class
< 1%	0.5	0
1% to 5%	3.0	1
6% to 15%	10.5	2
16% to 25%	20.5	3
26% to 50%	38.0	4
51% to 75%	63.0	5
76% to 95%	85.5	6
> 95%	98.0	7

Note:

1. Based on the Daubenmire cover class system (Barbour et al 1999).

Acronyms and Abbreviations:

% = percent
 < = less than
 > = greater than

Reference:

Barbour, M.G., J.H. Burk, and W.D. Pitts. 1999. Terrestrial plant ecology. 3rd edition. Benjamin/Cummings Publishing Company, Menlo Park, California.

Table 2a
Upland Vegetation Monitoring Quadrat Data
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Upland Quadrat I.D.	Common Name	Growth Form	Indicator Status	Target Species (Y/N)	Invasive (Y/N)	Canopy Cover (%)	Species Composition (%)	Canopy Cover Class				
Scientific Name								Quadrat UP-1	Quadrat UP-2	Quadrat UP-3		
	<i>Lolium perenne</i>	Perennial rye	graminoid	FACU	Y	N	23.0	18.7	5	1	1	
	<i>Festuca rubra</i>	Red fescue	graminoid	FACU	Y	N	26.3	21.4	3	4	3	
	<i>Taraxacum officinale</i>	Common dandelion	herbaceous	FACU	N	N	10.5	8.5	2	2	2	
	<i>Cichorium intybus</i>	Chicory	herbaceous	FACU	Y	N	5.5	4.5	1	2	1	
	<i>Erigeron annuus</i>	Daisy fleabane	herbaceous	FACU	Y	N	1.0	0.8	1	--	--	
	<i>Lotus corniculatus</i>	Birds-foot trefoil	herbaceous	FACU	N	N	26.3	21.4	1	4	4	
	<i>Symphotrichum pilosum</i>	Frostweed aster	herbaceous	FACU	Y	N	3.5	2.8	--	2	--	
	<i>Trifolium pratense</i>	Red clover	herbaceous	FACU	Y	N	4.5	3.7	--	1	2	
	<i>Medicago lupulina</i>	Black medic	herbaceous	FACU	Y	N	1.0	0.8	--	1	--	
	<i>Rumex crispus</i>	Curly dock	herbaceous	FAC	Y	N	1.0	0.8	--	1	--	
	<i>Daucus carota</i>	Queen Anne's lace	herbaceous	UPL	Y	N	12.7	10.31	--	--	4	
	<i>Centaurea stoebe</i>	Spotted knapweed	herbaceous	NI	N	Y	1.0	0.8	--	--	1	
	<i>Plantago lanceolata</i>	English plantain	herbaceous	FACU	Y	N	3.5	2.85	--	--	2	
	<i>Setaria pumila</i>	Yellow foxtail	graminoid	FAC	Y	N	1.0	0.8	--	--	1	
	<i>Galium album</i>	Hedge bedstraw	herbaceous	FACU	Y	N	1.0	0.8	--	--	1	
	<i>Digitaria ischaemum</i>	Smooth crab grass	graminoid	FACU	N	N	1.0	0.8	--	--	1	
Cover Type - % Cover												
									Vegetation (Cover Class)	7	6	7
									Vegetation (Raw Estimates)	95	85	95
Species Richness												
									Species Richness	6	9	12

(Cover Class) Total Vegetative % Cover (%)	94
Relative % Cover of Target Species (%)	68
Relative % Cover of Invasive Species (%)	0.8

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

% = percent	N = no
-- = not applicable	NI = No Indicator Status
FAC = Facultative	UPL = Upland
FACU = Facultative Upland	Y = yes

Table 2b
Bank Vegetation Monitoring Quadrat Data
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Bank Quadrat I.D.	Common Name	Growth Form	Indicator Status	Target Species (Y/N)	Invasive (Y/N)	Canopy Cover (%)	Species Composition (%)	Canopy Cover Class			
Scientific Name								Quadrat BK-1	Quadrat BK-2	Quadrat BK-3	
	<i>Daucus carota</i>	Queen Anne's lace	herbaceous	UPL	Y	N	8.0	5.7	1	2	2
	<i>Festuca rubra</i>	Red fescue	graminoid	FACU	Y	N	16.2	11.6	4	2	--
	<i>Cirsium arvense</i>	Canada thistle	herbaceous	FACU	N	Y	5.5	3.9	2	1	1
	<i>Panicum virgatum</i>	Switch grass	graminoid	FAC	Y	N	46.3	33.2	5	4	4
	<i>Impatiens capensis</i>	Spotted touch-me-not	herbaceous	FACW	Y	N	2.0	1.4	1	1	--
	<i>Melilotus albus</i>	White sweet clover	herbaceous	FACU	Y	N	7.0	5.0	2	2	--
	<i>Monarda fistulosa</i>	Wild bergamot	herbaceous	FACU	Y	N	1.0	0.7	1	--	--
	<i>Centaurea nigra</i>	Black knapweed	herbaceous	NI	Y	N	3.0	2.2	1	1	1
	<i>Centaurea stoebe</i>	Spotted knapweed	herbaceous	NI	N	Y	1.0	0.7	1	--	--
	<i>Trifolium pratense</i>	Red clover	herbaceous	FACU	Y	N	2.0	1.4	1	1	--
	<i>Lotus corniculatus</i>	Birds-foot trefoil	herbaceous	FACU	N	N	4.5	3.2	--	1	2
	<i>Taraxacum officinale</i>	Common dandelion	herbaceous	FACU	N	N	1.0	0.7	--	1	--
	<i>Salix discolor</i>	Pussy willow	shrub	FACW	Y	N	1.0	0.7	1	--	--
	<i>Verbena hastata</i>	Blue vervain	herbaceous	FACW	Y	N	10.3	7.4	--	3	2
	<i>Juncus effusus</i>	Common rush	herbaceous	OBL	Y	N	13.7	9.8	--	3	3
	<i>Lycopus americanus</i>	American bugleweed	herbaceous	OBL	Y	N	3.5	2.5	--	2	
	<i>Festuca sp.</i>	Fescue species	graminoid	FACU	Y	N	7.0	5.0	--	2	2
	<i>Picris hieracioides</i>	Hawkweed oxtongue	herbaceous	NI	Y	N	1.0	0.7	--	--	1
	<i>Hypericum perforatum</i>	Common St. John's wort	herbaceous	UPL	N	Y	1.0	0.7	--	--	1
	<i>Eupatorium perfoliatum</i>	Common boneset	herbaceous	FACW	Y	N	3.5	2.5	--	--	2
	<i>Symphotrichum novi-belgii</i>	Common New York aster	herbaceous	FACW	Y	N	1.0	0.7	--	--	1
Cover Type - % Cover											
								Vegetation (Cover Class)	7	7	6
								Vegetation (Raw Estimates)	100	100	90
Plant Height/Species Richness											
								Species Richness	11	14	12

(Cover Class) Total Vegetative % Cover (%)	94
Relative % Cover of Target Species (%)	91
Relative % Cover of Invasive Species (%)	5

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

- | | |
|----------------------------|--------------------------|
| % = percent | N = no |
| -- = not applicable | NI = No Indicator Status |
| FAC = Facultative | OBL = Obligate |
| FACU = Facultative Upland | UPL = Upland |
| FACW = Facultative Wetland | Y = yes |

Table 3a
Submerged Aquatic Vegetation - Area 1
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class					
Scientific Name						Quadrat 1-1	Quadrat 1-2	Quadrat 1-3	Quadrat 1-4	Quadrat 1-5	
	<i>Schoenoplectus pungens</i>	Y	N	2.7	3.2	1	--	--	--	2	
	<i>Nymphaea odorata</i>	Y	N	12.3	14.4	3	--	3	--	3	
	<i>Myriophyllum spicatum</i>	N	Y	22.0	25.8	4	1	3	4	2	
	<i>Elodea canadensis</i>	Y	N	11.0	12.9	2	1	2	3	2	
	<i>Heteranthera dubia</i>	Y	N	34.5	40.5	1	6	2	2	5	
	<i>Spyrogyra and Cladophora spp</i>	Y	N	2.70	3.2	--	--	--	2	1	
Cover Type - % Cover											
						Vegetation (Cover Class)	6	6	5	6	6
						Vegetation (Raw Estimates)	90	90	65	90	85
Species Richness											
						Species Richness	5	3	4	4	6
Location Characteristics											
						Water Depth (feet)	1.85	3.00	2.10	3.40	1.80

(Cover Class) Total Vegetative % Cover (%)	81
Relative % Cover of Target Species (%)	74
Relative % Cover of Invasive Species (%)	26

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

- % = percent
- = not applicable
- N = no
- Y = yes

Table 3b
Submerged Aquatic Vegetation - Area 2
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class					
Scientific Name						Quadrat 2-1	Quadrat 2-2	Quadrat 2-3	Quadrat 2-4	Quadrat 2-5	
	<i>Nymphaea odorata</i>	Y	N	53.0	49.2	6	3	6	5	2	
	<i>Potamogeton nodosus</i>	Y	N	12.6	11.7	--	--	--	--	5	
	<i>Lemna sp.</i>	Y	N	0.0	0.0	--	--	--	--	0	
	<i>Myriophyllum spicatum</i>	N	Y	14.5	13.5	2	2	1	2	4	
	<i>Ceratophyllum demersum</i>	Y	N	6.9	6.4	2	1	2	2	--	
	<i>Elodea canadensis</i>	Y	N	7.5	7.0	2	2	1	2	1	
	<i>Heteranthera dubia</i>	Y	N	1.2	1.1	1	--	--	1	--	
	<i>Spyrogyra and Cladophora spp</i>	Y	N	4.7	4.4	--	--	--	1	3	
	<i>Vallisneria americana</i>	Y	N	7.4	6.9	--	3	1	1	2	
Cover Type - % Cover											
						Vegetation (Cover Class)	6	5	6	6	7
						Vegetation (Raw Estimates)	85	55	95	95	100
Species Richness											
						Species Richness	5	5	5	7	7
Location Characteristics											
						Water Depth (feet)	2.70	2.60	2.30	1.50	1.50

(Cover Class) Total Vegetative % Cover (%)	84
Relative % Cover of Target Species (%)	85
Relative % Cover of Invasive Species (%)	15

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

% = percent
 -- = not applicable
 N = no
 Y = yes

Table 3c
Submerged Aquatic Vegetation - Area 3
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class				
						Quadrat 3-1	Quadrat 3-2	Quadrat 3-3	Quadrat 3-4	Quadrat 3-5
<i>Schoenoplectus tabernaemontani</i>	Soft stemmed bulrush	Y	N	2.1	2.2	--	--	2	--	--
<i>Cyperus diandrus</i>	Umbrella flat sedge	Y	N	0.6	0.6	--	--	1	--	--
<i>Nymphaea odorata</i>	White water-lily	Y	N	42.5	44.2	5	2	4	5	4
<i>Potamogeton nodosus</i>	Long-leaved pondweed	Y	N	17.3	18.0	--	4	2	4	
<i>Lemna sp.</i>	Duckweed	Y	N	1.2	1.2	--	1	1	0	0
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	N	Y	18.0	18.7	2	4	3	2	2
<i>Ceratophyllum demersum</i>	Coontail	Y	N	1.2	1.2	1	--	1	--	--
<i>Elodea canadensis</i>	Canada waterweed	Y	N	1.8	1.9	1	1	1	--	--
<i>Heteranthera dubia</i>	Water stargrass	Y	N	1.2	1.2	--	1	--		1
<i>Spyrogyra and Cladophora spp</i>	Filamentous green algae	Y	N	2.7	2.8	--	--	1	2	
<i>Vallisneria americana</i>	Wild celery	Y	N	7.6	7.9	--	--	--	--	4
Cover Type - % Cover										
Vegetation (Cover Class)						5	6	6	6	5
Vegetation (Raw Estimates)						70	90	85	95	75
Species Richness										
Species Richness						4	6	9	5	5
Location Characteristics										
Water Depth (feet)						1.20	0.65	0.40	0.95	2.00

(Cover Class) Total Vegetative % Cover (%)	77
Relative % Cover of Target Species (%)	81
Relative % Cover of Invasive Species (%)	19

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

- % = percent
- = not applicable
- N = no
- Y = yes

Table 3d
Submerged Aquatic Vegetation - Area 4
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class					
Scientific Name						Quadrat 4-1	Quadrat 4-2	Quadrat 4-3	Quadrat 4-4	Quadrat 4-5	
	<i>Schoenoplectus tabernaemontani</i>	Y	N	2.1	2.6	--	--	--	--	2	
	<i>Schoenoplectus pungens</i>	Y	N	1.2	1.5	--	1	--	--	1	
	<i>Bidens frondosa</i>	Y	N	2.1	2.6	--	--	--	--	2	
	<i>Nymphaea odorata</i>	Y	N	20.8	26.2	--	3	3	5	--	
	<i>Potamogeton nodosus</i>	Y	N	4.1	5.2	--	--	--	--	3	
	<i>Lemna sp.</i>	Y	N	0.0	0.0	--	--	--	0	--	
	<i>Potamogeton crispus</i>	N	Y	0.6	0.8	1	--	--	--	--	
	<i>Myriophyllum spicatum</i>	N	Y	11.0	13.9	2	1	2	3	2	
	<i>Ceratophyllum demersum</i>	Y	N	2.7	3.4	--	1	--	2	--	
	<i>Heteranthera dubia</i>	Y	N	6.9	8.7	2	2	2	--	1	
	<i>Spyrogyra and Cladophora spp</i>	Y	N	7.6	9.6	--	--	--	--	4	
	<i>Vallisneria americana</i>	Y	N	20.2	25.5	5	4	--	--	--	
Cover Type - % Cover											
						Vegetation (Cover Class)	7	5	4	6	5
						Vegetation (Raw Estimates)	100	70	45	85	55
Species Richness											
						Species Richness	4	6	3	4	7
Location Characteristics											
						Water Depth (feet)	1.50	2.10	2.60	3.50	1.00

(Cover Class) Total Vegetative % Cover (%)	70
Relative % Cover of Target Species (%)	77
Relative % Cover of Invasive Species (%)	23

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

% = percent
 -- = not applicable.
 N = no
 Y = yes

Table 3e
Submerged Aquatic Vegetation - Area 5
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York

Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class					
Scientific Name						Quadrat 5-1	Quadrat 5-2	Quadrat 5-3	Quadrat 5-4	Quadrat 5-5	
	<i>Nymphaea odorata</i>	Y	N	10.4	11.1	2	--	2	3	2	
	<i>Potamogeton nodosus</i>	Y	N	20.2	21.7	5	--	--	--	4	
	<i>Lemna sp.</i>	Y	N	0.0	0.0	0	--	0	--	--	
	<i>Myriophyllum spicatum</i>	N	Y	11.0	11.8	2	2	1	2	3	
	<i>Ceratophyllum demersum</i>	Y	N	2.10	2.3	--	--	--	2	--	
	<i>Elodea canadensis</i>	Y	N	14.5	15.5	2	2	1	2	4	
	<i>Heteranthera dubia</i>	Y	N	15.9	17.0	--	5	1	1	2	
	<i>Spyrogyra and Cladophora spp</i>	Y	N	1.8	1.9	1	1	1	--	0	
	<i>Vallisneria americana</i>	Y	N	17.4	18.6	--	1	5	2	2	
Cover Type - % Cover											
						Vegetation (Cover Class)	6	6	5	5	6
						Vegetation (Raw Estimates)	95	80	70	65	90
Species Richness											
						Species Richness	6	5	7	6	7
Location Characteristics											
						Water Depth (feet)	1.70	3.00	1.50	2.10	1.60

(Cover Class) Total Vegetative % Cover (%)	77
Relative % Cover of Target Species (%)	88
Relative % Cover of Invasive Species (%)	12

Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

Acronyms and Abbreviations:

% = percent
 -- = not applicable.
 N = no
 Y = yes

Table 3f
Submerged Aquatic Vegetation - Area 6
2025 Restoration Monitoring Report
New York State Electric & Gas Corporation
Penn Yan Former Manufactured Gas Plant
Penn Yan, New York



Quadrat I.D.	Common Name	Target Species (Y/N)	Invasive (Y/N)	Cover (%)	Species Composition (%)	Canopy Cover Class					
Scientific Name						Quadrat 6-1	Quadrat 6-2	Quadrat 6-3	Quadrat 6-4	Quadrat 6-5	
	<i>Nymphaea odorata</i>	White water-lily	Y	N	7.6	9.1	--	4	--	--	--
	<i>Potamogeton nodosus</i>	Long-leaved pondweed	Y	N	2.1	2.5	--	--	2	--	--
	<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	N	Y	10.9	13.1	1	2	--	4	1
	<i>Ceratophyllum demersum</i>	Coontail	Y	N	4.2	5.0	2	2	--	--	--
	<i>Elodea canadensis</i>	Canada waterweed	Y	N	6.8	8.1	--	3	1	--	2
	<i>Heteranthera dubia</i>	Water stargrass	Y	N	22.9	27.4	2	--	1	5	4
	<i>Vallisneria americana</i>	Wild celery	Y	N	29.0	34.7	4	4	4	3	2
Cover Type - % Cover											
						Vegetation (Cover Class)	4	5	4	6	5
						Vegetation (Raw Estimates)	50	75	50	85	65
Species Richness											
						Species Richness	4	5	4	3	4
Location Characteristics											
						Water Depth (feet)	2.90	1.40	1.50	4.60	3.50

(Cover Class) Total Vegetative % Cover (%)	58
Relative % Cover of Target Species (%)	87
Relative % Cover of Invasive Species (%)	13

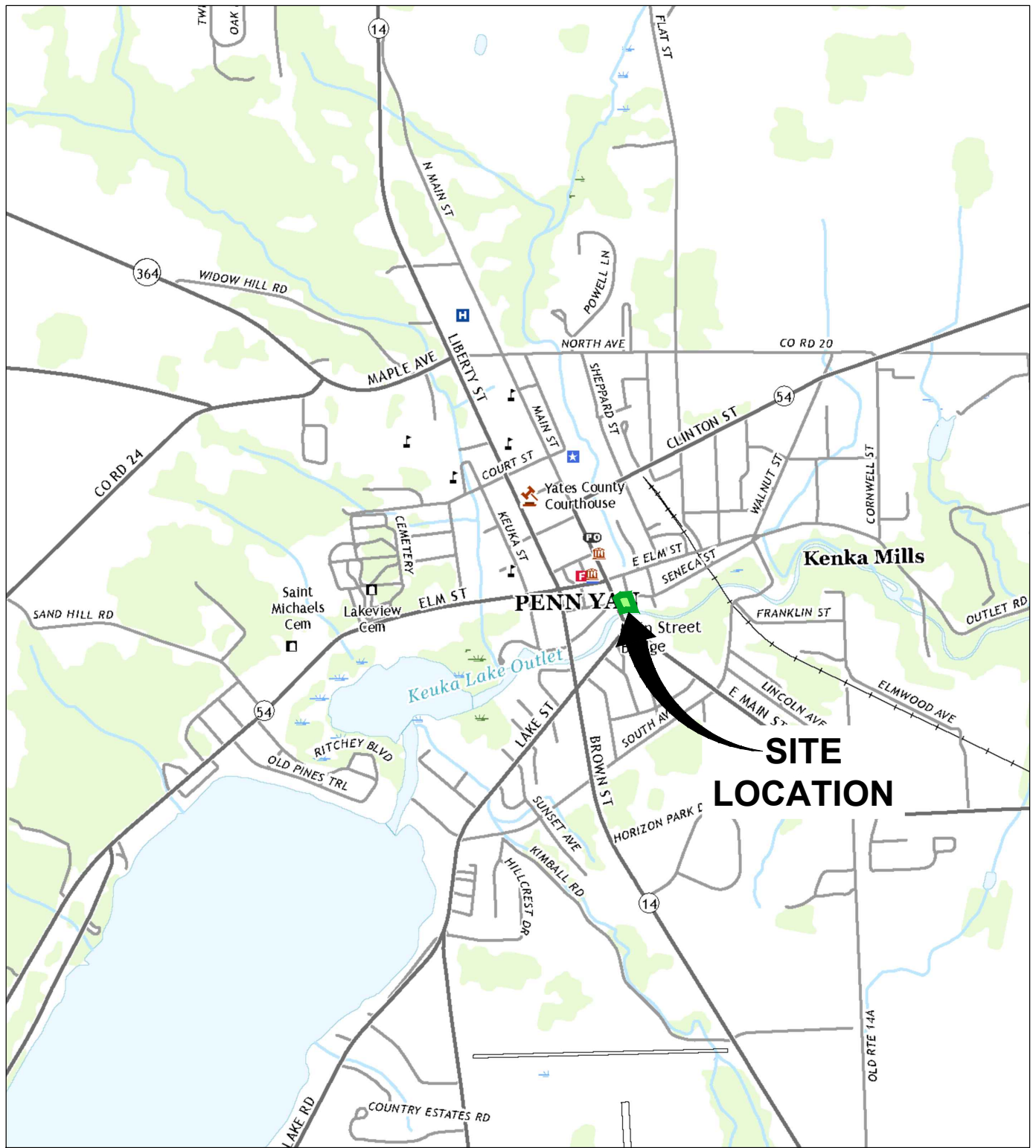
Notes:

1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown in Table 1.
2. Canopy cover values can add up to greater than 100% due to overlapping vegetation.
3. Species composition is a proportional scaling of 0% to 100% and represents the % a species contributes to the total vegetative cover.

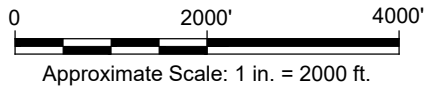
Acronyms and Abbreviations:

% = percent
 -- = not applicable.
 N = no
 Y = yes

Figures

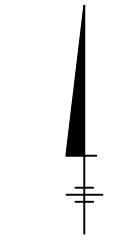
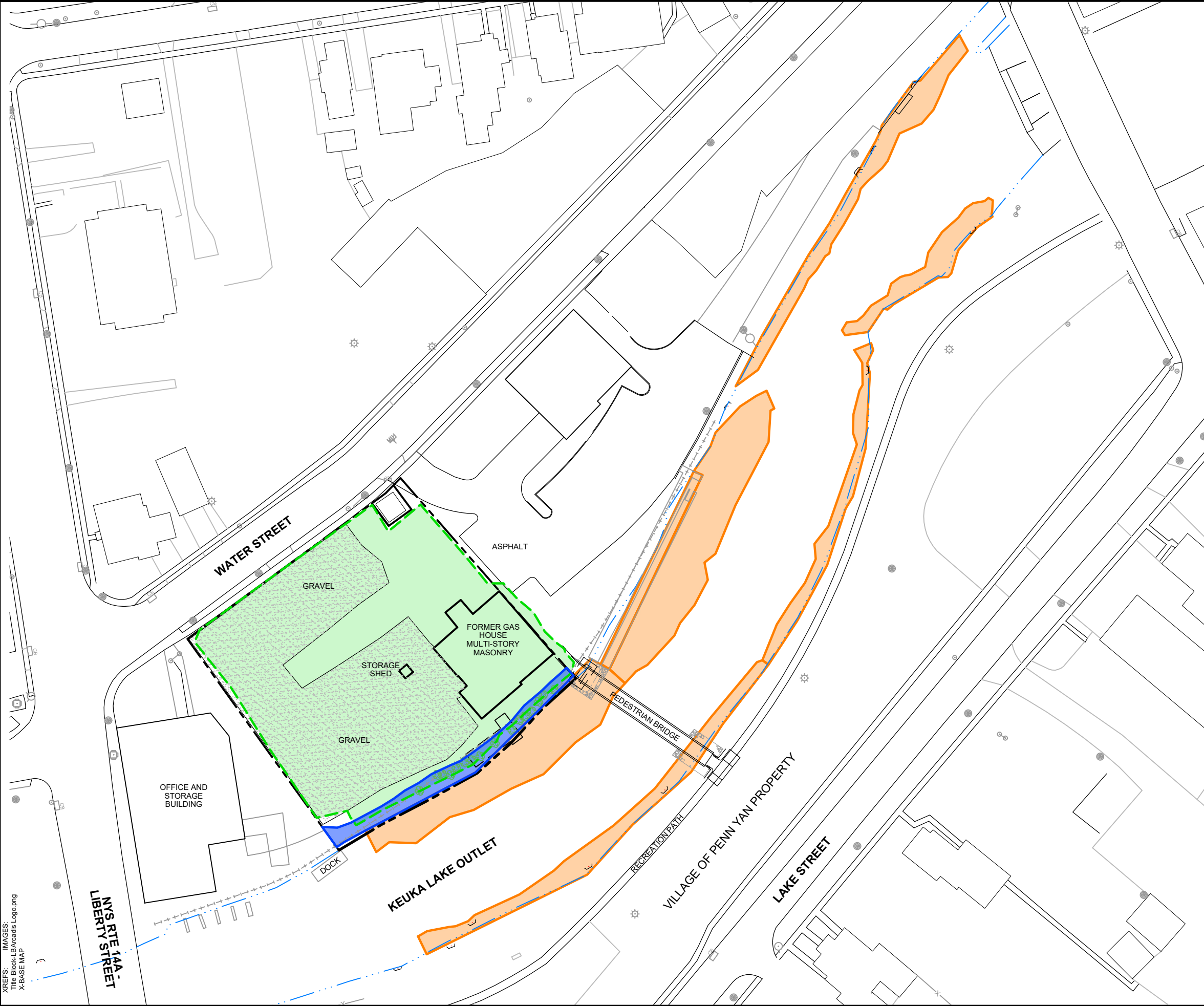


REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., PENN YAN, NY, 2019.











NEW YORK

NYSEG FORMER MGP SITE PENN YAN, NEW YORK	
SITE LOCATION MAP	
	FIGURE 1



LEGEND:

-  CURRENT SITE FEATURE
-  APPROXIMATE PROPERTY LINE
-  APPROXIMATE SHORE LINE
-  TOP OF BANK
-  HISTORICAL RAILROAD TRACKS
-  SUBMERGED AQUATIC VEGETATION RESTORATION AREAS
-  UPLAND RESTORATION AREA
-  BANK RESTORATION AREA (APPROXIMATE)

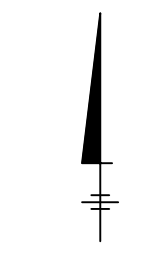
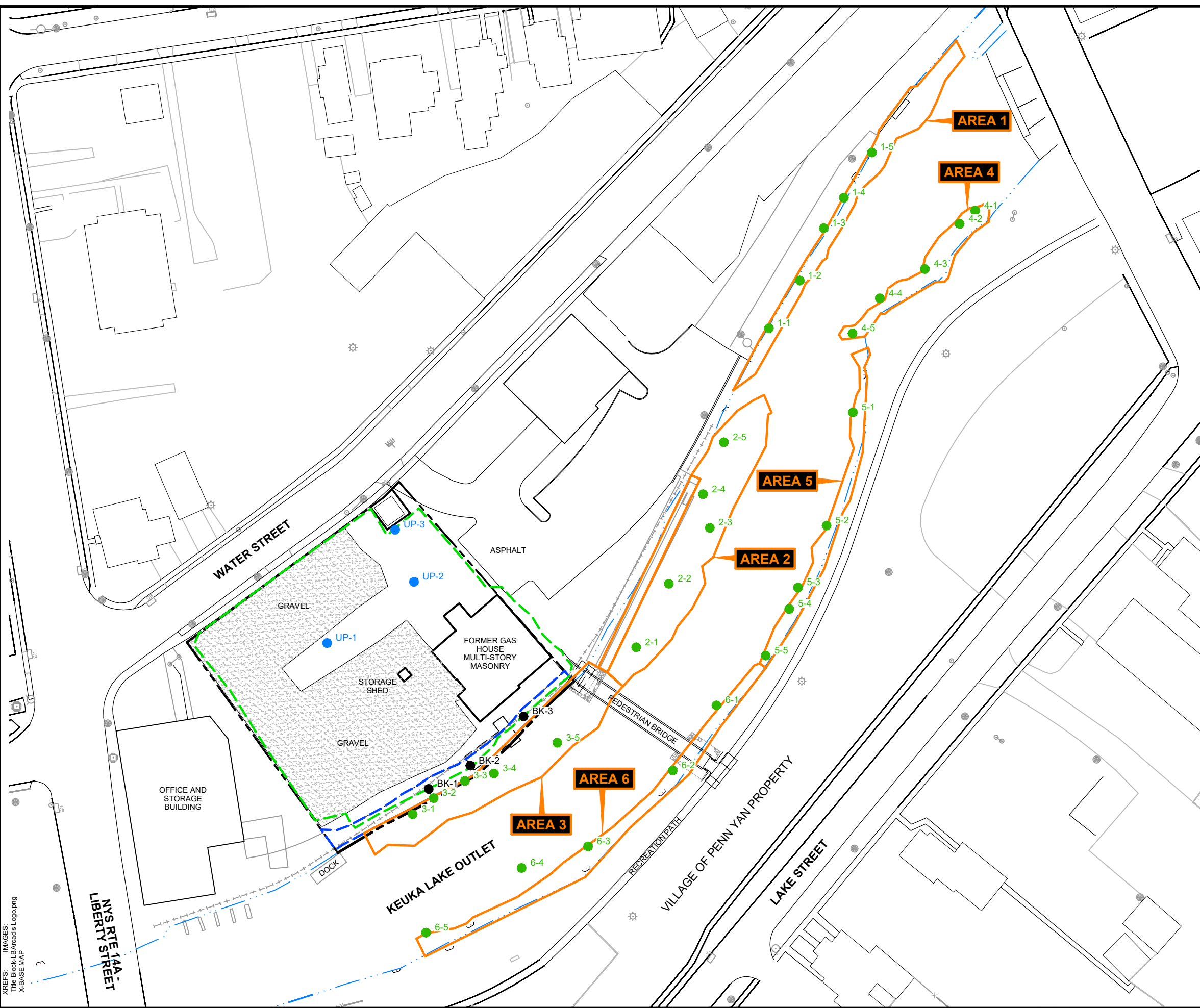
NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURE BASED ON "MONITORING WELL LOCATION PLAN" BY AECOM, DATED SEPTEMBER 2021.



NYSEG FORMER MGP SITE PENN YAN, NEW YORK	
RESTORATION AREAS	
	FIGURE 2

C:\Users\krahmer\OneDrive\Documents\Arcadis\ACC US\IAUS\90999999-NYSEG_FMR MGP_PENN YAN_NY\Project Files\10_WIP\107_ARC_ENV\2025\01-DWG\PPY-NY_MGP_2025 VEG MON LOC.dwg LAYOUT: 3 SAVED: 11/11/2025 2:16 PM ACADVER: 25.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 11/12/2025 8:08 AM BY: KRAHMER, ERIC



LEGEND:

- UPLAND VEGETATION MONITORING LOCATION
- BANK VEGETATION MONITORING LOCATION
- AQUATIC VEGETATION MONITORING LOCATION
- CURRENT SITE FEATURE
- APPROXIMATE PROPERTY LINE
- APPROXIMATE SHORE LINE
- TOP OF BANK
- HISTORICAL RAILROAD TRACKS
- SUBMERGED AQUATIC VEGETATION RESTORATION LIMITS
- UPLAND RESTORATION LIMITS
- BANK RESTORATION LIMITS (APPROXIMATE)

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURE BASED ON "MONITORING WELL LOCATION PLAN" BY AECOM, DATED SEPTEMBER 2021.



NYSEG
FORMER MGP SITE
PENN YAN, NEW YORK

**2025 VEGETATION
MONITORING LOCATIONS**



Appendix A

Restoration Monitoring Photographs

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 1

Location: Former Manufactured Gas Plant (MGP) Site, Penn Yan, New York

Description: Former seeded upland area. Photograph shows current 2025 conditions with extent of parking lot expansion.



Photo: 2

Location: Former MGP Site, Penn Yan, New York

Description: Looking north into restored upland toward former gas regulator house.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 3

Location: Former MGP Site,
Penn Yan, New York

Description: Path resulting
from high public use in the
upland area north of former
gas house.



Photo: 4

Location: Quadrat UP-1

Description: Upland
vegetation quadrat UP-1.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 5

Location: Quadrat UP-2

Description: Upland vegetation quadrat UP-2.



Photo: 6

Location: Quadrat UP-3

Description: Upland vegetation quadrat UP-3.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 7

Location: Former MGP Site,
Penn Yan, New York

Description: Looking
southwest along restored bank
area.



Photo: 8

Location: Former MGP Site,
Penn Yan, New York

Description: Looking
southwest at extent of
restored bank area and
current rentals operation and
equipment.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 9

Location: Quadrat BK-1

Description: Bank vegetation quadrat BK-1.



Photo: 10

Location: Quadrat BK-2

Description: Bank vegetation quadrat BK-2.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 11

Location: Quadrat BK-3

Description: Bank vegetation quadrat BK-3.



Photo: 12

Location: Former MGP Site,
Penn Yan, New York

Description: Active in-water
and nearshore construction
activities in submerged aquatic
vegetation (SAV) Area 6.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 13

Location: SAV Area 3

Description: Looking southwest into restored bank area and SAV Area 3 with submerged, emergence, and floating aquatic vegetation.



Photo: 14

Location: SAV Area 1,
Quadrat 1-5

Description: Example of submerged, emergent, and floating aquatic vegetation from SAV Area 1. A total of five quadrats surveyed in SAV Area 1.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 15

Location: SAV Area 2,
Quadrat 2-2

Description: Example of submerged and floating aquatic vegetation from SAV Area 2. A total of five quadrats surveyed in SAV Area 2.



Photo: 16

Location: SAV Area 3,
Quadrat 3-4

Description: Example of floating aquatic vegetation from SAV Area 3. A total of five quadrats surveyed in SAV Area 3.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 17

Location: SAV Area 4,
Quadrat 4-2

Description: Example of submerged and floating aquatic vegetation from SAV Area 4. A total of five quadrats surveyed in SAV Area 4.



Photo: 18

Location: SAV Area 5,
Quadrat 5-3

Description: Example of submerged aquatic and floating vegetation from SAV Area 5. A total of five quadrats surveyed in SAV Area 5.

Appendix A
Restoration Monitoring Photographs

Penn Yan Former Manufactured Gas Plant Site
Penn Yan, New York



Photo: 19

Location: SAV Area 6,
Quadrat 6-1

Description: Example of submerged and floating aquatic vegetation from SAV Area 6. A total of five quadrats surveyed in SAV Area 6.

Arcadis of New York, Inc.
100 Chestnut Street, Suite 1020
Rochester
New York 14604
Phone: 585 385 0090
Fax: 585 546 1973
www.arcadis.com