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Date: December 6, 2024
Our Ref: 30229726
Subject: **2023 Restoration Monitoring Report Comment-Response**
NYSEG Cortland-Homer Former MGP Site
Site No. 7-12-005

Dear Mr. Starr,

On behalf of NYSEG, please find enclosed, the Revised 2023 Restoration Monitoring Report for Operable Unit No. 2 (OU-2) of the Cortland-Homer former manufactured gas plan (MGP) site located in Homer, New York (the site).

The 2023 Restoration Monitoring Report was previously submitted to the New York State Department of Environmental Conservation (NYSDEC) on May 29, 2024. NYSDEC provided comments and recommended modifications to the 2023 Restoration Monitoring Report via a July 23, 2024 letter to NYSEG. The 2023 Restoration Monitoring Report has been modified to address each NYSDEC comment from the July 23, 2024 letter (as applicable). For ease of presentation, each NYSDEC comment is presented below in bold, followed by NYSEG's response.

Comments and Responses

Comment 1, General: DEC understands that ongoing access agreement negotiations with the property owner has precluded the implementation of quantitative monitoring on the eastern shoreline and floodplain within area 1, thus requiring the use of a drone to complete a qualitative evaluation of restoration efforts. To better evaluate this approach, please specify in this Report which performance standards were assessed via aerial drone surveys. Separately, please provide proof that invasive species can be identified via drone images. In addition, in accordance with the Monitoring and Maintenance Plan, the annual monitoring report must be provided within 90 days of summer field work being completed. Replanting should occur within the same year as the monitoring to stay on track with the 5-year monitoring. Therefore, due to delays in reporting, trees, shrubs, and other vegetation either planted or replanted in 2024 that were based on 2023 results, will start at a new monitoring year 0 and continue for 5 years.

The **Qualitative Monitoring** section of the 2023 Restoration Monitoring Report was modified to provide additional clarification and capabilities of the qualitative survey conducted via drone. The aerial drone survey and photographic evaluation was unable to identify individual shrubs, non-native invasive and nuisance species in this area.

During monitoring, discrepancies between as-built conditions and actual conditions were observed which delayed submission of the 2023 Restoration Monitoring Report, future annual restoration monitoring reports will be provided in accordance with the Monitoring and Maintenance Plan (MMP) to the extent practical.

Due to the prolonged access agreement negotiations (for the eastern riverbank and floodplain in Area 1), the quantitative tree and shrub assessment for this area was delayed. Tree and shrub species were fully quantified for this area in July 2024. A supplemental tree and shrub planting and reseeding was performed during the next available planting window in fall 2024. In the future, every attempt will be made to complete any corrective actions and/or supplemental/replacement plantings in the same year as monitoring.

Comment 2, Quantitative Monitoring Results: The July 23, 2023, Qualitative Site Inspection indicated that a formal tree and shrub mortality census in Area 1 will be performed as part of the quantitative monitoring effort planned for August/September 2023. Did this survey occur on the eastern shoreline in Area 1 via drone? Please clarify and revise as appropriate.

Due to ongoing access agreement negotiations, a formal census of tree and shrub mortality was not completed on the eastern shoreline and floodplain of Area 1 during the 2023 quantitative monitoring and inspection. The **Quantitative Monitoring** section of the 2023 Restoration Monitoring Report has been updated to indicate specific locations where quantitative monitoring was completed in 2023.

Comment 3, Summary, Area 1: Given the inability to implement quantitative monitoring on the eastern shoreline, a bullet should be added that states monitoring will proceed immediately with all necessary tree, shrub, and vegetative cover replacement and restoration efforts along the eastern shoreline as soon as access is obtained.

A bullet has been added to the **Summary, Area 1** section of the 2023 Restoration Monitoring Report to indicate that quantitative monitoring and corrective actions, if any, will be performed once an access agreement between the property owner and NYSEG is obtained.

Comment 4, Summary, General: This section describes trees in area 2, shrubs above the mean high-water (MHW) level in area 2, shrubs and live stakes below the MHW in both area 1 and 2, and total vegetative cover in area 1 as not meeting their respective performance criteria. This section continues to describe that additional monitoring actions will occur in 2024, and action taken only if these categories continue to underperform during 2024 monitoring efforts. However, in accordance with the Monitoring and Maintenance Plan, in Years 1 through 2, the appropriate response to underperforming trees and shrubs, herbaceous ground cover, and vegetation below the MHW, is to reseed and replant, not to continue monitoring. Please revise this section and the 2024 Planned Activities section to describe the specific reseeding and replanting efforts, as appropriate. Furthermore, please provide the timeline in which these efforts are proposed to occur.

The **2024 Planned Activities** section of the 2023 Restoration Monitoring Report has been revised to indicate supplemental tree and shrub planting and reseeding of sparsely vegetated areas is planned for fall 2024. Vegetation below the MHW was evaluated during 2024 monitoring events, corrective actions to address

underperforming vegetation below MHW will be detailed in the forthcoming 2024 Restoration Monitoring Report and are anticipated to be completed during the spring 2025 dormant period.

Comment 5, 2024 Planned Activities: Please describe corrective actions to be taken that will increase tree, shrub, and other vegetation survival as appropriate.

The **2024 Planned Activities** section of the 2023 Restoration Monitoring Report has been revised to indicate supplemental tree and shrub planting and reseeding of sparsely vegetated areas is planned for fall 2024 and will address any observed mortality and will increase tree and shrub quantities and herbaceous cover to meet specified performance standards.

Please contact Mark Castro at 203.233.1245 or mark_castro@avangrid.com if you have any questions or require any additional information.

Sincerely,
Arcadis of New York, Inc.

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CC. Mark Castro, Avangrid
Jason Vogel, Arcadis

Enclosures:
2023 Restoration Monitoring Report – Revised

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Date: December 6, 2024
Our Ref: 30169483
Subject: **2023 Restoration Monitoring Report - Revised**
NYSEG Cortland-Homer Former MGP Site
Site No. 7-12-005

Dear Mr. Starr,

On behalf of the New York State Electric & Gas Corporation (NYSEG), this letter presents the 2023 Restoration Monitoring Report (Monitoring Report) for the Cortland-Homer Former Manufactured Gas Plant (MGP) site, Operable Unit No. 2 (OU-2), located in Homer, New York (the site).

Restoration monitoring was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC) -approved OU-2 Remedial Design Report (Remedial Design). The Remedial Design was prepared by Arcadis and submitted to the NYSDEC on April 7, 2020. Based on permit conditions, minor modifications to the Remedial Design were required, the revised Remedial Design Drawings and Technical Specifications were submitted to the NYSDEC on March 16, 2021. Remedial construction and restoration activities were completed in fall 2022 with “Year 1” restoration monitoring completed in 2023.

Objectives

Restoration monitoring report objectives are to document the:

- Completed restoration activities;
- Methodologies used to evaluate effectiveness of the restoration;
- Current monitoring data and compare data to the performance criteria; and
- Completed corrective actions (if any) and proposed corrective actions and adaptive management recommendations.

The following sections discuss the completed restoration activities, monitoring objectives and methods, completed corrective actions, performance criteria, monitoring results, and a summary of the "Year 1” monitoring results including recommendations for future restoration monitoring.

Restoration Activities

Vegetation restoration activities for OU-2 were completed in stages from fall 2021 to fall 2022 in general accordance with the NYSDEC-approved Remedial Design to re-establish in-channel, bank, floodplain, and upland area habitats. At OU-2 Area 1 trees and shrubs were planted in fall 2021 with live stakes and emergent vegetation planted in the spring of 2022. At OU-2 Area 2 trees, shrubs, live stakes, and emergent vegetation were planted in fall 2022. The site restoration areas listed below were developed to restore vegetation communities based on site hydrology, topography, and pre-remedial conditions along this section of the Tioughnioga River.

- Emergent Vegetation Planting Area – generally located below the mean baseflow of previously delineated wetlands. The emergent restoration area was determined by water elevations corresponding to typical mean base flow conditions, which corresponds to water depths of up to 4 inches along the restored shorelines and located approximately 5 feet below the mean high water (MHW) conditions.
- Inundated Shoreline Planting Area – generally located above the Emergent Vegetation Planting Area up to the 1.25-year storm interval elevation for banks with a steep slope, or to the top of bank for those shallow and sloped bank areas.
- Bank Planting Area – generally located above the 1.25-year storm interval elevation to the top of the bank.
- Wet Meadow Planting Area – generally located below the 1.25-year storm interval elevation within the eastern shoreline floodplain of Area 1.
- Floodplain Planting Area – Generally located between the 1.25-year and 5-year storm interval elevations in Area 1 and above 5-year storm interval elevation in Area 2 to top of the bank.
- Grass Planting Area – located above the 5-year storm interval elevation and near top of bank and extending to the limits of disturbance into floodplain.

Note that small restoration areas within the limits of disturbance at Area 1 were modified through discussions between the property owners and the on-site construction team. These modifications reflect changes to property owner needs at the Living Museum and for the Village of Homer. Specifically, portions of the floodplain planting area in Area 1 were defined as “Open Viewing” and “Grass/Maintained” planting areas. As a result, restoration densities in these areas are slightly different with respect to the Remedial Design.

Restored OU-2 Habitats

The restoration design for vegetation communities within the OU-2 disturbance areas included native herbaceous plant species established using area-specific seed mixes and individual plant plugs, shrub species as live stakes and container grown stock, and tree species from nursery stock as large container grown or ball and burlap, depending upon the species.

As detailed in the Remedial Design, vegetation communities were restored using the following:

- Herbaceous communities below MHW were established with two individual plug species to establish river shoreline (i.e., emergent) vegetation areas.
- Shrub communities below MHW were established using three species of live stakes installed in existing riverbed materials along the lower riverbank toe.
- Herbaceous communities above MHW were seeded using one of six habitat-specific seed mixes.
- Shrub communities above MHW were established using thirteen native species.
- Tree communities above MHW were established using twelve native species.

Vegetation restoration included the establishment of plantings within the designed habitats noted above. Habitat restoration details for Area 1 and Area 2 are provided in Table 1.

Monitoring Objectives

Qualitative and quantitative monitoring activities were used to evaluate herbaceous ground cover, tree and shrub survival, live stake survival and growth, bank stability, erosion control, and invasive plant species presence and to identify adaptive management and/or corrective actions to meet performance criteria. These monitoring activities

were completed in accordance with the Preliminary Monitoring and Maintenance plan (PMMP) included as Appendix G to the Remedial Design.

Note that site access to the eastern shoreline and floodplain at Area 1 was not permitted due to ongoing access agreement negotiations with the property owner. As such, qualitative monitoring of this area was completed using an aerial drone survey, quantitative monitoring was not completed.

Qualitative Monitoring

Qualitative meander surveys were performed within accessible OU-2 restoration areas on May 25, 2023. These surveys were used to qualitatively evaluate:

- Tree, shrub, and live stake survival;
- Initial vegetation establishment for herbaceous ground cover;
- Bank stability and erosion control issues; and
- Non-native invasive and nuisance species presence.

Note that due to access restrictions on the eastern shoreline and floodplain at Area 1 a qualitative survey was completed using an aerial drone. The aerial drone survey and photographic evaluation were used to provide a general estimate of:

- Tree survival;
- Initial vegetation establishment for herbaceous ground cover; and
- Bank stability and erosion control issues.

The aerial drone survey was unable to identify individual shrubs or non-native invasive and nuisance species in this specific area.

Based on this survey, several adaptive management and corrective actions were implemented within the areas to promote successful vegetation establishment and bank stabilization, protect the completed restoration, and meet performance criteria. Adaptive management activities and corrective actions are described below in the Adaptive Management and Corrective Actions section. The qualitative site inspection results from May 2023 were provided in a letter to NYSDEC on July 10, 2023.

Quantitative Monitoring

The late summer quantitative monitoring and inspection is performed to evaluate restoration success and to determine if performance criteria are being met. Quantitative monitoring was performed on the western shoreline in Area 1 and on both the eastern and western shorelines in Area 2 from September 25th through 27th, 2023. Note that quantitative monitoring was not completed on the eastern shoreline in Area 1 due to ongoing access agreement negotiations. Completed quantitative monitoring focused on identifying:

- Tree and shrub survival/mortality;
- Herbaceous cover diversity and quality;
- Stability and erosion control issues associated with the restored channel and banks; and
- Non-native invasive and nuisance species presence.

If quantitative monitoring identifies significant issues affecting the restoration, then additional corrective actions and/or adaptive management measures may be recommended/implemented to ensure that performance criteria are met.

Justin Starr, P.G.
New York State Department of Environmental Conservation
December 6, 2024

Quantitative Monitoring Methods

During the late summer quantitative monitoring event, vegetation surveys were conducted to evaluate the vegetation community established within each of the restored areas (i.e., OU-2 – Areas 1 and 2). The design of the area-specific restored habitat monitoring was based on the acreages and type of vegetation and plantings used. The primary objective was to assess approximately 20% of the total restored acreage using radial plots to estimate overall total vegetative cover and shrub and live stake survival to compare against performance criteria.

Based on the aerial extent of habitats and installed plantings, random one square meter (1-m^2) quadrat plots within each applicable restored habitat were assessed to determine an average herbaceous ground cover and invasive species cover. For live stakes and emergent vegetation installed below MHW, quantitative assessment of survival was performed using radial plots and quadrats.

Vegetation survey methods followed the methods described in the Remedial Design (Appendix G). Methods included establishment of fixed radial plots (i.e., circular 1/100-acre plots with an 11.7-foot radius or 1/10-acre plots with a 37.3-foot radius) to evaluate tree and shrub survival and total vegetative cover within the restored habitat areas and assessment of herbaceous cover condition within nested 1-m^2 quadrat plots. Herbaceous vegetation species identification and individual species cover estimations were performed within each quadrat. Raw observed percent cover estimates were standardized using cover class midpoints, based on the Daubenmire cover class system (Barbour et al. 1999), presented in Table 2.

Tree survival was evaluated through individual tree counts to assess survivability. Individual shrub counts across the total restored area are not practical due to the herbaceous vegetation and acreage. Alternatively, planted shrub survival was extrapolated from radial plot counts and compared to the full restored area plantings to derive a percent survival estimate. Note that this estimation method may impart some potential bias and sampling error due to radial plots that may overlap multiple planting habitat types with planting densities that differ by species and per habitat in accordance with the NYSDEC-approved restoration design. Aggregation[1] (i.e., clustering of plantings) is also a contributing factor to density differences observed within the plots. Hence, habitat-specific shrub survival estimates were adjusted to account for habitat overlap, where applicable, to increase accuracy for the overall restored area estimate. Qualitative meander surveys within each restored habitat type were used to evaluate signs of significant shrub mortality. The following area-specific methods implemented are described below.

Area 1

Across the restored habitat types on the western shoreline of Area 1, 24 fixed radial plots and 26 random 1-m^2 quadrat plots were assessed (Figure 1). A breakdown of the number of radial plots and quadrats according to habitat type is listed below:

- Emergent Vegetation: 2 radial plots, 4 quadrats;
- Inundated Shoreline: 6 radial plots, 6 quadrats;
- Bank: 7 radial plots, 7 quadrats;
- Floodplain: 5 radial plots, 5 quadrats; and
- Grass/Maintained: 4 radial plots, 4 quadrats.

[1] Aggregation is measured as an index of dispersion (as the shrub count per plot variance divided by the average shrubs per plot) (Payandeh 1970).

Area 2

Across the restored habitat types in Area 2, 22 fixed radial plots and 20 random 1-m^2 quadrat plots were assessed (Figure 2). A breakdown of the number of radial plots and quadrat plots according to habitat type is listed below:

- Emergent Vegetation: 1 radial plot, 1 quadrat;
- Inundated Shoreline: 6 radial plots, 6 quadrats;
- Bank: 12 radial plots, 8 quadrats; and
- Floodplain: 3 radial plots, 5 quadrats.

Additionally, Area 1 and Area 2 restoration monitoring included 12 fixed photograph locations established at Area 1 (Figure 3) and 17 fixed photograph locations at Area 2 (Figure 4). Photographs will be taken at each location during subsequent monitoring events to document the restoration.

Adaptive Management and Corrective Actions

Adaptive management is a proactive management strategy that uses information gathered through routine monitoring to identify successful management practices and implement corrective actions that will help achieve the restoration objectives. Adaptive management and corrective actions completed in 2023 focused primarily on treatment of invasive plant species found within the limits of disturbance, along with assessment of tree and shrub mortality to determine potential replacement quantities, and areas with significant bare spots that may require additional seeding during 2024. Bank stability and erosion observations made during the spring inspection were minor and observed to be stable during the September 2023 monitoring event. No immediate corrective actions were noted within the restoration areas.

During the September 2023 visit, Arcadis' licensed herbicide applicator and support team performed meander surveys and herbicide application to address previously identified invasive shrub and plant species. Herbicide applications were performed within the limits of disturbance along the western shoreline of Area 1 and the eastern shoreline of Area 2. Note that, access to the western shoreline of Area 2 was not available however, no invasive plant species were observed along the restored areas of this shoreline.

Invasive species management activities were performed by Arcadis on September 26, 2023 using foliar herbicide application (using AquaNeat®) via backpack spraying. Invasive species identified and treated include purple loosestrife (*Lythrum salicaria*), bull thistle (*Cirsium vulgare*), Canadian thistle (*Cirsium arvense*), common mullein (*Verbascum thapsus*), mugwort (*Artemisia vulgaris*), cut-leaved teasel (*Dipsacus laciniatus*), and black locust (*Robinia pseudoacacia*).

Restoration Performance Criteria

The performance criteria used to evaluate the restoration success includes:

- Trees – 100% survival (within first two growing seasons);
- Shrubs – 80% survival (within first two growing seasons);
- Total vegetative cover (defined as ground and canopy cover within the radial plots) – at least 85% average cover for areas above the MHW elevation (within one growing season);
- Herbaceous ground cover – at least 85% average cover for grass planting area (using quadrat data)(within first two growing seasons);

- Invasive plant species ground cover – 0% of “prohibited” species and less than 5% of “regulated” species during each monitoring event; and
- Live stakes and emergent vegetation restored below the MHW elevation – 80% total cover by Year 5 of monitoring.

Quantitative Monitoring Results

Field survey data was digitally collected using a vegetation monitoring application within Fulcrum® and was exported to Microsoft Excel® for data evaluation and table summation. An example set of field information and forms for OU-2 Area 1 and Area 2 radial and quadrat plots are provided in Attachment 1. 2023 field activities are documented in the 2023 monitoring inspection checklist included in Attachment 2 and Photograph Log included as Attachment 3.

Note that site access to the eastern shoreline and floodplain at Area 1 was not permitted due to ongoing access agreement negotiations with the property owner. As such, quantitative was only completed on the western shoreline of Area 1. Quantitative monitoring results for OU-2 Area 1 (western shoreline only) and Area 2 are summarized in the following subsections.

Area 1 Trees

Individual counts for trees planted within the Area 1 western shoreline were performed to determine survivability. A total of forty-four trees were planted in the Area 1 western shoreline limits of disturbance. During the spring qualitative monitoring visit, the trees appeared healthy, and no mortality was observed. During the quantitative monitoring activities, a total of forty-four trees were observed alive with several showing signs of stress, with limited basal growth only. Tree count results indicate that tree survival currently meets the survivability performance standard.

Additionally, as part of the restoration activities approximately thirteen trees were planted outside the limits of disturbance in coordination with property owners. Of these, six black cherry (*Prunus serotina*) were planted on the Living Museum property and were observed to be stressed and/or dead.

Area 1 Shrubs and Live Stakes

Shrub survival estimates were developed from fixed radial plot assessments representing approximately 21% of the total restored western shoreline area. Shrub count estimates were extrapolated from the plot densities across each of the habitat type areas that had shrub and live stakes planted. Across all Area 1 restored habitat types the total estimated shrub survival rate is approximately 77%, indicating that shrub survival is slightly below the survivability performance standard. When including potential natural recruits, the survivability increases to approximately 94%.

Shrub survival estimates within the inundated shoreline were significantly lower than other habitats and estimated to be approximately 19%. The inundated shoreline restored habitat areas will be reassessed by meander survey during the 2024 spring qualitative inspection to verify shrub survival counts, account for natural recruits, or to determine if corrective actions are required to meet performance criteria. Detailed information regarding the individual radial plots assessed in Area 1 is presented in Table 3a. Radial plot data and estimated shrub and live stake counts are presented in Table 3b.

Area 1 Emergent Vegetation

Emergent vegetation along the western shoreline was minimally observed during both the qualitative and quantitative monitoring visits. Based on low deposition of softer substrates and organic material in the near-shore planting environments, high flows likely dislodged installed plantings over time. Two radial plots and four quadrats

were assessed in emergent vegetation planting areas. Based on the observations, no planted emergent vegetation was observed and limited naturally recruited emergent vegetation was found. The overall vegetative cover from the radial plots is estimated to average of 14%.

Area 1 Herbaceous Vegetation

Herbaceous vegetation cover was assessed using random 1-m^2 quadrats within restored habitats and indicated a reasonable species diversity, ranging from 2 to 46 plant species within each habitat. The grass planting and wet meadow planting areas are the only habitat type in Area 1 which contributes toward the vegetative cover performance goal above the MHW level. Vegetative cover was observed to be approximately 98%, which currently meets the performance standard.

Invasive species within the restored areas met performance standards of less than 5% with a total invasive species cover of approximately 2.6%. Invasive species observed included mugwort, cut-leaved teasel, and purple loosestrife.

Quadrat data and results for Area 1 are presented in Tables 4a through 4e. A combined area quadrat data summary is provided in Table 4j, and a complete list of plant species observed during monitoring is included in Table 5.

Area 2 Trees

Individual tree counts within Area 2 were made to determine survivability. A total of 257 trees were specified for planting in Area 2 across the restored habitat areas as specified in the Remedial Design. Based on the monitoring inspections and further discussions with the planting contractor, only 162 trees were planted in Area 2. This shortfall included the planting of meadowsweet (*Spiraea alba*) instead of a mix of three native tree species specified in the Remedial Design. During the 2023 quantitative monitoring, a total of 3 trees in Area 2 were observed to be dead, yielding a planted tree survival rate of 98%. Tree count results indicate that tree survival does not meet the performance standard. Corrective actions will include supplemental tree planting and is discussed in the Summary Section below.

Area 2 Shrub and Live Stakes

Shrub survival estimates were developed from fixed radial plot assessments representing approximately 19.5% of the total restored area. Shrub count estimates were extrapolated from the plot densities across each of the habitat type areas that had shrub and live stakes planted. Across all Area 2 restored habitat types the total estimated shrub survival rate is approximately 62%, indicating that shrub survival is below the survivability performance standard. Using potential natural recruits observed, the survivability increases to approximately 65%.

Shrub survival estimates within the inundated shoreline and floodplain habitats were significantly lower than the bank habitat, survival was estimated to be approximately 15% and 46%, respectively. The inundated shoreline habitat observations indicated that most live stakes were either dead or not present and shrubs in the floodplain habitat indicated some mortality. Varying planting densities across the floodplain habitat may have influenced the radial plot densities derived from the two 1/10-acre plots assessed during the 2023 quantitative monitoring event. The restored habitat areas will be reassessed during the 2024 spring qualitative inspection for shrub survival by meander survey to verify whether shrub survival is meeting performance criteria. Detailed information regarding the individual radial plots assessed in Area 2 is presented in Table 3a. Radial plot data and estimated shrub and live stake counts are presented in Table 3b.

Area 2 Emergent Vegetation

Emergent vegetation along the eastern and western shorelines was minimally observed during both the qualitative and quantitative monitoring visits. Some deposition of softer substrates and organic material was present in the near-shore planting environments, but high flows and/or wildlife foraging may have promoted loss of the installed plantings over time. One radial plot and one quadrat were assessed in emergent vegetation planting areas. Based on the observations, one Arrow arum (*Peltandra virginica*) plant was found along the western shoreline and limited naturally recruited emergent vegetation was found. The overall vegetative cover from the radial plot indicated 10%. Along the eastern shoreline, there was slightly higher presence of Arrow arum plantings, but still below the Remedial Design density required to meet performance criteria.

Area 2 Herbaceous Vegetation

Herbaceous vegetation cover was assessed using random 1-m^2 quadrats within restored habitats and indicated a reasonable species diversity, ranging from 1 to 38 plant species within each habitat and a total of 116 plant species across all OU-2 habitats. Habitat types used to estimate herbaceous vegetative cover are greater than 50 feet from MHW and do not have performance criteria. However, herbaceous vegetative cover for planting areas below MHW ranges from approximately 3% to 78% and for planting areas above MHW ranges from approximately 89% to 91%.

Invasive species within the restored areas met performance standards of less than 5% with a total invasive species cover of approximately 2.2%. Invasive species observed included mugwort, cut-leaved teasel, purple loosestrife, and black locust.

Quadrat data and results for Area 2 are presented in Tables 4f through 4i. A combined area quadrat data summary is provided in Table 4j, and a complete list of plant species observed during the monitoring is included in Table 5.

Summary

Tioughnioga River riparian corridor restoration within each area considered the existing site hydrology to identify and design planting habitats that would effectively re-establish the riparian corridor to pre-disturbance conditions. Qualitative surveys were performed to guide adaptive management and corrective actions to promote successful vegetation establishment to meet performance criteria. Quantitative monitoring performed within each area was designed to evaluate the potential spatial gradients within the individual restored habitat types to determine how effective restoration of native plant communities was achieved against performance criteria goals. Performance criteria goals were derived for assessment of vegetation installed above and below the MHW elevation to align with targeted plant community establishment per the restoration designs. 2023 quantitative monitoring performed at each area generally indicates achievement of some performance criteria goals.

A summary of area-specific and the combined OU-2 monitoring results and associated performance criteria are provided below in Table 6 and further described by area to address future corrective action needs identified for 2024.

Table 6 – 2023 (Year 1) OU-2 Restoration Performance Criteria Summary

Plantings	OU-2 Monitoring Results			Performance Criteria	OU-2 Standard Achieved
	Area 1	Area 2	Overall		
Trees	100%[1]	98%	99%	100% Survival	No
Shrubs (above MHW)	125%	67%	77%	80% Survival	No[2]
Shrubs and Live Stakes within the Inundated Shoreline (below MHW)	19%	15%	17%	80% Survival (by Year 5 of monitoring)	No
Total Vegetative Cover (above MHW)	79%	98%	91%	85% Cover	Yes

Plantings	OU-2 Monitoring Results			Performance Criteria	OU-2 Standard Achieved
	Area 1	Area 2	Overall		
Herbaceous Ground Cover (grass)	96%	N/A	96%	85% Cover	Yes
Invasive Species Ground Cover	2.6%	1.8%	2.3%	<5% (Regulated Species)	Yes

Notes:
1. Monitoring results from Area 1 western shoreline only.
2. Shrub and live stake survival is based on extrapolation of density-based radial plot information with the adjustment of plot habitat overlap to derive estimated plant counts. Meander survey observations within the restored habitats primarily indicated most significant loss below MHW. Some mortality due to herbivory and human impact were observed in portions of the restored habitats. N/A - not applicable.

Area 1

- Due to ongoing access agreement negotiations vegetation monitoring of the eastern shoreline and floodplain in Area 1 was not completed during this monitoring period. Qualitative/quantitative monitoring of this area and any corrective actions will be performed as soon as possible following execution of an access agreement between the property owner and NYSEG. Area 1 monitoring results presented below are from the western shoreline of Area 1 only.
- Tree survival for the western shoreline was observed to be 100% and meets performance criteria, proactive replacements for a minimum of six black cherry trees will be replaced in-kind on the Living Museum property during the fall of 2024. A full quantitative tree survey on the eastern shoreline is anticipated to be performed in 2024, once completed, corrective actions including supplemental tree planting, if required, will be performed in fall 2024.
- Overall shrub survival estimates above the MHW elevation currently meet the performance criteria of 80%. However, habitat specific estimates of shrub survival below the MHW elevation (within the Inundated Shoreline restored areas) are currently below the performance criteria. Meander surveys will be performed during the 2024 spring qualitative inspection to determine shrub survival (including naturally recruited species) to verify whether shrub survival is improving. If shrub survival below the MHW remains below criteria, corrective actions including supplemental installation of live stakes may be performed during the early spring 2025 dormant period.
- Total vegetative cover (i.e., ground and canopy cover within the radial plots) above the MHW elevation is slightly below the performance criteria of 85%. If the bank vegetation does not show improvement during the 2024 monitoring visits, then overseeding with bank seed mix will be performed in fall 2024.
- Total herbaceous ground cover performance criteria are currently being met (i.e., herbaceous ground cover based on quadrat data greater than 85%).
- Foliar herbicide applications were performed to control invasive and nuisance plant species found within the restoration areas. Continued herbicide applications are recommended during the September monitoring visit and hand removals during the spring monitoring inspection will be performed. These proactive controls will continue to limit encroachment and establishment of observed regulated and nuisance species within the restored areas.

Area 2

- Tree survival was observed to be 98% across all Area 2 restored tree planting areas which does not meet the survival performance criteria. Three replacement trees, plus a minimum of 95 trees will be planted in Area 2 habitats to meet Remedial Design and pre-construction replacement tree quantities. If the spring qualitative inspection indicates additional tree mortality, then additional trees will be added to the planned fall 2024 planting to accommodate the additional tree mortality.

- Overall shrub survival estimates above the MHW elevation are below the performance criteria of 80%. Habitat specific estimates of shrub survival within the Inundated Shoreline and Floodplain restored areas are currently driving the survival estimates below the performance criteria. Meander surveys will be performed during the 2024 spring qualitative inspection to determine shrub survival (including naturally recruited species) to verify whether shrub survival is meeting performance criteria. If the numbers do not indicate a survival estimate of 80% or higher, then shrub replacements will be quantified, and corrective actions including supplemental planting of shrubs will be performed in the fall 2024, corrective actions below MHW would include installation of live stakes and may be performed during the early spring 2025 dormant period.
- Total vegetative cover (i.e., ground and canopy cover within the radial plots) above the MHW elevation is above the performance criteria of 85%. However, Inundated Shoreline areas are currently at 78%, if Inundated Shoreline vegetation does not show improvement during the 2024 monitoring visits, then overseeding with emergent seed mix will be performed in fall 2024.
- Foliar herbicide applications were performed to control invasive and nuisance plant species found within the restoration areas. Continued herbicide applications are recommended during the September monitoring visit and hand removals during the spring monitoring inspection will also be performed. These proactive controls will continue to limit encroachment and establishment of observed regulated and nuisance species within the restored areas.

OU-2 Summary

- Trees survival was met on the western shoreline in Area 1, with six identified black cherry trees to be replaced in-kind on the Living Museum property. A full quantitative tree survey will be performed on the eastern shoreline of Area 1 once an access agreement is obtained. Area 2 requires a minimum of 98 trees to meet the pre-construction replacement quantity, plus any additional mortality observed during 2024 qualitative monitoring. Corrective actions including supplemental tree and shrub planting in all areas will be performed in fall 2024.
- Shrub survival above the MHW elevation is estimated to meet criteria in Area 1 and slightly below 80% in Area 2. Shrub survival below the MHW elevation is poor in both areas. Spring 2024 meander surveys will be used to further assess survivability and natural recruitment of shrubs within the Inundated Shoreline restoration areas. Corrective actions below MHW, if required, may be performed during the early spring 2025 dormant period.
    - Note that the period for meeting the performance standard for shrubs and live stakes (i.e., 80% survival) is by Year 5 of monitoring. If progress to meet criteria is not observed during Year 2 (2024) monitoring, a recommendation to apply additional wetland seed mix may be implemented during the fall of 2024.
- Total vegetative cover within the Bank restored habitats of Area 1 above the MHW elevation are slightly below the performance criteria. Overseeding may be recommended if vegetative cover below the MHW elevation has not improved during the 2024 qualitative monitoring.
- Invasive plant species were observed across both areas and the overall cover estimate is approximately 2.4% within the restoration areas. Continued proactive management to control invasive plant species will be implemented in 2024.

2024 Planned Activities

The 2024 (i.e., Year 2) post-construction vegetation monitoring will be conducted during two events: a qualitative inspection event in the late-Spring/early-Summer and a quantitative event in late-Summer/early-Fall. The

qualitative event will be conducted to assess current restoration area conditions regarding tree/shrub health, herbaceous ground coverage, bank stability, and invasive species presence. Qualitative observations will be used to develop any potential corrective actions required to meet the established restoration performance criteria. Planned corrective actions include supplemental tree and shrub planting and reseeding above MHW during the fall 2024 planting window, pending access agreements. Supplemental tree and shrub planting will address any observed tree/shrub mortality and increase quantities to meet the NYSDEC-approved design. The quantitative event will include assessment of tree and shrub survival/mortality, herbaceous groundcover diversity and quality using random quadrats, bank stability and erosion issues, if any, associated with the restored channel and banks, and non-native invasive and nuisance species presence to evaluate the restoration status in comparison to established performance criteria.

Please contact Mark Castro at 203.233.1245 or mark_castro@avangrid.com if you have any questions or require any additional information.

Sincerely,
Arcadis of New York, Inc.

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Enclosures:

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Table 1
Area 1 and Area 2 Habitat Restoration Summary
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Restored Habitat (Planting Area)	Acreage	Trees Planted	Shrubs Planted	Live Stakes Installed	Emergent Vegetation Plugs Installed	Herbaceous Seed Mix
Area 1						
Emergent Vegetation	0.18	NA	NA	NA	1,401	NA
Inundated Shoreline	1.11	22	363	453	NA	Yes
Bank	0.48	19	234	NA	NA	Yes
Floodplain	2.96	202	1,604	NA	NA	Yes
Grass/Maintained	0.32	1	0	NA	NA	Yes
Area Total:	**5.05**	**244**	**2,201**	**453**	**1,401**	
Area 2						
Emergent Vegetation	0.004	NA	NA	NA	180	NA
Inundated Shoreline	0.26	NA	NA	251	NA	Yes
Bank	0.64	23	811	NA	NA	Yes
Floodplain[2]	0.96	139	1,342	NA	NA	Yes
Area Total:	**1.86**	**162**	**2,153**	**251**	**180**	
Total:	**6.91**	**297**	**4,354**	**704**	**1,581**	

Acronyms and Abbreviations:
NA = not applicable

Notes:
1. A total of 44 trees were planted within the western shoreline Bank and Floodplain restored areas.
2. A total of 53 meadowsweet shrubs were planted in the Floodplain restored area.
3. Per the pre-construction disturbance count a total of 257 trees were specified for restoration in Area 2. An additional 95 trees will be supplemented in 2024 to meet the restoration quantity for Area 2.

Table 2
Cover Class System
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

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

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

Reference:
Barbour, M. G., J.H. Burk, W.D. Pitts, F.S. Gilliam and M.W. Swartz. 1999. Terrestrial Plant Ecology. Third Edition. California: Benjamin/Cummings.

Table 3a
Vegetative Cover Radial Plot Summary
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Restored Habitat Type / Radial Plot ID	Area	Absolute Vegetative Cover (%)	Total Vegetative Cover (%)	Herbaceous Cover (%)	Shrub Cover (%)	Tree Cover (%)	Tree Count	Shrub Count	Shrub Recruit	Tree Height Range (feet)	Shrub Height Range (feet)
Emergent Vegetation											
EV-01	1	25	26	25	1	0	0	0	1	--	1.6
EV-02	1	2	2	2	0	0	0	0	0	--	--
EV-05	2	10	10	10	0	0	0	0	0	--	--
Habitat Average:		**12**	**13**	**12**	**0**	**0**	**0**	**0**	**0**	**--**	**1.6**
Inundated Shoreline											
B-01*	1	20	20	18	2	0	0	4	0	--	0.8 - 3.5
IS-01	1	40	40	30	10	0	0	4	4	--	1.5 - 2.0
IS-02	1	75	88	65	18	5	1	4	2	5.4	2.0 - 4.0
IS-03	1	50	52	45	5	2	1	1	5	5.0	3.2 - 6.7
IS-04	1	40	45	30	15	0	0	9	1	--	1.0 - 4.7
IS-05	1	90	90	90	0	0	0	0	0	--	--
IS-08	2	60	60	60	0	0	0	0	0	--	--
IS-09	2	45	45	45	0	0	0	0	0	--	--
IS-10	2	70	70	70	0	0	0	0	0	--	--
IS-11	2	75	75	75	0	0	0	0	0	--	--
IS-12	2	80	80	77	3	0	0	3	0	--	1.7 - 5.0
IS-13	2	70	70	64	6	0	0	3	1	--	1.0 - 5.2
Habitat Average:		**60**	**61**	**56**	**5**	**1**	**0**	**2**	**1**	**5.0 - 5.4**	**0.8 - 6.7**
Bank											
B-02	1	55	70	30	35	5	1	12	17	8.6	2.0 - 6.0
B-03	1	40	40	40	0	0	0	0	0	--	--
B-04	1	80	83	80	3	0	0	3	0	--	2.0 - 3.7
B-05	1	70	74	70	4	0	0	4	0	--	1.7 - 3.5
B-06	1	60	68	60	8	0	0	7	1	--	1.1 - 3.4
B-07	2	40	40	10	30	0	0	10	2	--	1.5 - 4.3
B-08	2	90	90	80	8	2	1	3	3	11.0	0.8 - 3.4
B-09	2	90	90	75	15	0	0	7	4	--	1.4 - 5.2
B-10	2	90	90	78	8	4	2	5	0	5.3 - 9.7	1.1 - 3.7
B-11	2	80	80	65	15	0	0	10	0	--	1.3 - 4.5
B-12	2	80	85	70	15	0	0	9	0	--	1.4 - 5.0
B-13	2	80	80	70	10	0	1	10	0	5.7	1.1 - 5.0
B-14	2	95	110	85	25	0	0	19	0	--	0.7 - 5.0

See Notes on Page 2.

Table 3a
Vegetative Cover Radial Plot Summary
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

ARCADIS

Restored Habitat Type / Radial Plot ID	Area	Absolute Vegetative Cover (%)	Total Vegetative Cover (%)	Herbaceous Cover (%)	Shrub Cover (%)	Tree Cover (%)	Tree Count	Shrub Count	Shrub Recruit	Tree Height Range (feet)	Shrub Height Range (feet)
Bank (continued)											
B-15	2	90	105	80	25	0	0	20	2	--	1.0 - 5.3
B-16	2	90	112	85	25	2	1	19	0	12.2	1.3 - 6.3
B-17	2	90	105	85	20	0	0	21	0	--	1.1 - 5.8
B-18	2	85	97	85	10	2	1	11	0	10.3	0.8 - 4.8
FP-05*	1	90	97	85	10	2	1	13	0	10.6	1.1 - 4.8
FP-07*	1	95	119	85	30	4	1	12	0	9.6	1.0 - 5.0
Habitat Average:		**78**	**86**	**69**	**16**	**1**	**0**	**10**	**2**	**8.6 - 12.2**	**0.7 - 6.3**
Floodplain[4]											
FP-01	1	90	99	75	20	4	2	24	0	5.8 - 8.4	0.6 - 5.8
FP-02	1	100	107	90	15	2	1	13	0	6.2	1.2 - 5.6
FP-03	1	95	97	85	10	2	1	8	1	11.4	1.0 - 5.4
FP-04	1	90	92	80	8	4	1	10	0	10.5	1.6 - 5.6
FP-06	1	98	104	90	10	4	1	12	0	10.8	1.5 - 5.5
B-19*	2	90	107	85	20	2	1	10	0	8.9	1.0 - 6.2
FP-08	2	90	110	75	20	15	5	68	0	9.4 - 10.5	1.0 - 5.6
FP-09	2	85	115	85	20	10	7	51	0	4.2 - 11.4	1.2 - 6.3
Habitat Average:		**92**	**104**	**83**	**15**	**5**	**2**	**25**	**0**	**4.2 - 11.4**	**0.6 - 6.3**
Grass/Maintained Area[4]											
G-01	1	95	95	93	2	0	0	2	0	--	2.8 - 3.0
G-02	1	95	95	94	1	0	0	1	0	--	3.2
G-03	1	95	97	95	2	0	0	2	0	--	2.0 - 2.8
G-04	1	100	100	100	0	0	0	0	0	--	--
Habitat Average:		**96**	**97**	**96**	**1**	**0**	**0**	**1**	**0**	**--**	**2.0 - 3.2**
Restored Habitat (All) Average:		**73**	**78**	**67**	**10**	**1.5**	**0.6**	**8.3**	**0.9**	**4.2 - 12.2 (max range)**	**0.6 - 6.7 (max range)**
Restored Habitat (Above MHW) Average:		**83**	**91**								

Notes:
1. Radial plot surveys conducted September 25 to 27, 2023.
2. Absolute vegetative cover is the radial plot estimate of total cover including all strata (i.e., herbaceous, shrub, and tree species) present considering overlap.
3. Total vegetative cover is the cumulative sum of herbaceous, shrub, and tree cover observed within the radial plot.
4. As-built conditions versus design conditions indicate habitat planting area differences for several plots are shown with asterisk. Plots FP-01 to FP-04 are in as-built "Open Viewing" habitat that is "Floodplain," FP-05 and FP-07 are in "Bank" habitat, G-01 to G-04 are in "Grass/Maintained" habitat on the Living Museum property. Plot B-19 is in "Floodplain" habitat.

Table 3b
Shrub and Live Stake Survival Summary
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Restored Habitat Type[1]	Total Restored Area (acres)	Planted Shrub Count[2]	Plot Area (acres)	Plot Shrub Count	As Built Density[3]	Shrub Plot Density	Plot Shrub Count Extrapolated[4]
Area 1 - Western Shoreline							
Inundated Shoreline	0.18	40 (303)	0.050	22	1640	367	66 (102)
Bank	0.37	164	0.075	56	438	747	276 (365)
Floodplain	0.17	238	0.030	67	1375	1340	228 (231)
Grass/Maintained	0.32	0	0.060	0	0	0	0
Area Average or Subtotals:	**1.04**	**745**	**0.215**	**145**	**1151**	**818**	**570 (698)**
						All Habitats - Percent Survival (Estimated Count):	**77% (94%)**
						Below MWH - Percent Survival (Estimated Count):	**19% (30%)**
						Above MHW - Percent Survival (Estimated Count):	**125% (148%)**
Area 2 - Western and Eastern Shoreline							
Inundated Shoreline	0.26	251	0.042	6	965	142	37 (43)
Bank	0.64	811	0.112	144	1267	1286	823 (886)
Floodplain	0.96	1289	0.21	129	1343	614	589 (589)
Area Average or Subtotals:	**1.86**	**2351**	**0.364**	**279**	**1192**	**681**	**1449 (1518)**
						All Habitats - Percent Survival (Estimated Count):	**62% (65%)**
						Below MWH - Percent Survival (Estimated Count):	**15% (17%)**
						Above MHW - Percent Survival (Estimated Count):	**67% (70%)**
Total:	**2.90**	**3096**	**0.579**	**424**	**1171**	**749**	**2019 (2216)**
						All Habitats - Percent Survival (Estimated Count):	**65% (72%)**
						Below MWH - Percent Survival (Estimated Count):	**17% (24%)**
						Above MHW - Percent Survival (Estimated Count):	**77% (83%)**

Notes:

1. Radial plot surveys conducted September 25 to 27, 2023.
2. Western shoreline counts include live stakes and estimated values from as-built information provided. Planted shrub count includes count of 303 live stakes within Inundated Shoreline areas.
3. Density is based on areas where shrubs and live stakes were planted and does not include Grass/Maintained area. Based on some potential overlap of radial plots across restored habitat types, the density or extrapolated counts may exceed as built quantities.
4. Estimated shrub counts include planted and naturally recruited in parentheses.
5. The radial plots assessed approximately 20% of the total restored habitat area.

Table 4a
Area 1 – Emergent Vegetation Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class				Canopy Cover (%)	Species Composition
						EV-01-1	EV-01-2	EV-02-1	EV-02-2		
Chlorophyta spp.	Green algae	chlorophyte	OBL	N	N	2	2	--	--	5.3	19.5
Veronica anagallis-aquatica	Water speedwell	herbaceous	OBL	I	N	4	4	2	--	21.6	80.5
Cover Type - % Cover											
Vegetation (Cover Class)						4	5	2	0	27.9	
Vegetation (Raw Estimates)						45	50	5	0	25.0	
Plant Height/Species Richness											
Plot Height Average (feet)						0.2	0.2	0.2	0	0.2	
Plot Height Maximum (feet)						0.3	0.3	0.3	0	0.23	
Species Richness						2	2	1	0	1.3	
										(Cover Class) Total Vegetative Percent Cover	27.9
										Relative Percent Cover of Invasive Species	0.0

See Notes and Abbreviations on Table 4e.

Table 4b
Area 1 – Inundated Shoreline Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class						Canopy Cover (%)	Species Composition
						B-01-1	IS-01-1	IS-02-1	IS-03-1	IS-04-1	IS-05-1		
Agrostis gigantea	Redtop	graminoid	FACW	I	N	--	--	--	--	--	1	0.5	0.4
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	1	--	--	--	--	--	0.5	0.4
Bidens cernua	Nodding Burr Marigold	herbaceous	OBL	N	N	--	2	--	--	--	1	2.3	1.9
Bidens frondosa	Devil's Pitchfork	herbaceous	FACW	N	N	2	--	--	--	--	--	1.8	1.5
Calamagrostis canadensis	Bluejoint	graminoid	OBL	N	N	--	--	--	--	2	--	1.8	1.5
Cornus sericea	Red-osier Dogwood	shrub	FACW	N	N	--	--	--	--	2	--	1.8	1.5
Cyperus spp	Sedge Species	graminoid	FACW	NI	N	--	--	--	--	--	2	1.8	1.5
Cyperus strigosus	Straw-Color Flat Sedge	graminoid	FACW	N	N	--	--	1	1	--	--	1.0	0.8
Daucus carota	Queen Anne's Lace	herbaceous	UPL	I	N	--	--	--	--	--	1	0.5	0.4
Dipsacus laciniatus	Cut-Leaved Teasel	herbaceous	FACU	I	Y	--	--	--	3	--	2	5.2	4.4
Echinochloa crus-galli	Large Barnyard Grass	graminoid	FAC	I	N	--	--	--	--	2	--	1.8	1.5
Epilobium coloratum	Eastern Willowherb	herbaceous	OBL	N	N	1	--	1	--	--	--	1.0	0.8
Equisetum arvense	Field Horsetail	herbaceous	FAC	N	N	--	--	--	--	--	2	1.8	1.5
Erechtites hieraciifolius	Common pilewort	herbaceous	FACU	N	N	--	--	--	--	2	--	1.8	1.5
Eupatorium perfoliatum	Common Boneset	herbaceous	FACW	N	N	--	3	--	--	--	4	9.8	8.2
Euthamia graminifolia	Flat-Top Goldentop	herbaceous	FAC	N	N	--	--	--	--	--	2	1.8	1.5
Fragaria virginiana	Virginia Strawberry	herbaceous	FACU	N	N	--	--	1	--	--	--	0.5	0.4
Galium album	Hedge Bedstraw	herbaceous	FACU	I	N	--	--	--	--	--	1	0.5	0.4
Galium palustre	Common Marsh Bedstraw	herbaceous	OBL	N	N	1	2	--	1	--	--	2.8	2.3
Juncus effusus	American Water Horehound	herbaceous	OBL	N	N	--	--	4	--	--	4	12.7	10.7
Leersia oryzoides	Rice Cut Grass	graminoid	OBL	N	N	--	3	4	2	--	1	12.0	10.1
Leucanthemum vulgare	Oxeye Daisy	herbaceous	UPL	I	N	--	--	--	--	1	--	0.5	0.4
Lycopus americanus	American Water Horehound	herbaceous	OBL	N	N	--	--	1	--	--	--	0.5	0.4
Lythrum salicaria	Purple Loosestrife	herbaceous	OBL	I	Y	--	1	--	2	--	1	2.8	2.3
Persicaria pensylvanica	Pinkweed	herbaceous	FACW	N	N	--	--	--	2	--	--	1.8	1.5
Phalaris arundinacea	Reed Canary Grass	graminoid	FACW	N	N	--	1	--	--	--	2	2.3	1.9
Pilea nummulariifolia	Creeping Charlie	herbaceous	FACU	N	N	--	--	--	--	--	2	1.8	1.5
Plantago major	Great Plantain	herbaceous	FACU	I	N	--	--	--	--	1	--	0.5	0.4
Populus deltoides	Eastern Cottonwood	tree	FAC	N	N	2	2	--	1	2	--	5.8	4.9
Ranunculus repens	Creeping Buttercup	herbaceous	FAC	I	N	1	2	--	--	--	--	2.3	1.9

See Notes and Abbreviations on Table 4e.

Table 4b
Area 1 – Inundated Shoreline Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class						Canopy Cover (%)	Species Composition
						B-01-1	IS-01-1	IS-02-1	IS-03-1	IS-04-1	IS-05-1		
Salix nigra	Black Willow	tree	OBL	N	N	--	--	--	--	2	--	1.8	1.5
Setaria pumila	Yellow foxtail	graminoid	FAC	I	N	1	--	--	2	--	--	2.3	1.9
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	2	--	3	3	3	12.0	10.1
Solidago canadensis	Canadian Goldenrod	herbaceous	FACU	N	N	2	--	--	--	--	--	1.8	1.5
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	2	2	--	4	--	--	9.8	8.3
Symphyotrichum pilosum	Frostweed Aster	herbaceous	FACU	N	N	--	--	--	--	--	1	0.5	0.4
Symphyotrichum puniceum	Purple-Stemmed Aster	herbaceous	OBL	N	N	--	1	--	--	--	--	0.5	0.4
Tussilago farfara	Colt's Foot	herbaceous	FACU	I	N	--	--	--	--	2	--	1.8	1.5
Verbena hastata	Blue Vervain	herbaceous	FACW	N	N	--	2	--	--	--	2	3.5	3.0
Veronica anagallis-aquatica	Water speedwell	herbaceous	OBL	I	N	--	--	3	--	--	--	3.4	2.9
Cover Type - % Cover													
Vegetation (Cover Class)						3	5	6	5	4	7		
Vegetation (Raw Estimates)						20	65	85	55	35	95		
Plant Height/Species Richness													
Plot Height Average (feet)						0.9	1.5	1.4	1.2	1.1	0.9		
Plot Height Maximum (feet)						3.3	3.8	3	5.2	5.5	3.1		
Species Richness						9	12	7	10	10	17		
												(Cover Class) Total Vegetative Percent Cover	61.0
												Relative Percent Cover of Invasive Species	7.1

See Notes and Abbreviations on Table 4e.

Table 4c
Area 1 – Bank Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class							Canopy Cover (%)	Species Composition
						B-02-1	B-03-1	B-04-1	B-05-1	B-06-1	FP-05-1	FP-07-1		
Ambrosia artemisiifolia	Annual Ragweed	herbaceous	FACU	I	N	--	--	2	--	--	--	--	1.5	1.1
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	--	--	--	--	2	--	--	1.5	1.1
Bidens frondosa	Devil's Pitchfork	herbaceous	FACW	N	N	--	--	--	2	--	--	--	1.5	1.1
Calystegia sepium	Hedge False Bindweed	herbaceous	FAC	I	N	--	2	--	--	--	--	--	1.5	1.1
Cornus sericea	Red-osier Dogwood	shrub	FACW	N	N	3	--	--	--	--	--	--	2.9	2.2
Corylus americana	American Hazelnut	shrub	FACU	N	N	--	--	--	--	--	1	--	0.4	0.3
Cyperus spp	Sedge Species	graminoid	FACW	NI	N	--	--	--	2	1	--	--	1.9	1.5
Daucus carota	Queen Anne's Lace	herbaceous	UPL	I	N	--	--	--	--	1	--	--	0.4	0.3
Dipsacus laciniatus	Cut-Leaf Teasel	herbaceous	FACU	I	Y	1	--	2	--	1	--	--	2.4	1.8
Epilobium coloratum	Eastern Willowherb	herbaceous	OBL	N	N	--	2	--	--	--	--	--	1.5	1.1
Erigeron canadensis	Common horseweed	herbaceous	FACU	N	N	--	--	--	2	1	--	--	1.9	1.5
Eupatorium perfoliatum	Common Boneset	herbaceous	FACW	N	N	--	--	2	--	--	--	--	1.5	1.1
Festuca rubra	Red Fescue	graminoid	FACU	I	N	--	--	--	--	--	--	6	12.2	9.2
Galium album	Hedge Bedstraw	herbaceous	FACU	I	N	--	1	2	3	3	2	2	10.8	8.1
Geum aleppicum	Yellow Avens	herbaceous	FAC	N	N	--	--	--	2	1	--	--	1.9	1.5
Impatiens capensis	Spotted Touch-Me-Not	herbaceous	FACW	N	N	--	1	--	--	--	--	--	0.4	0.3
Knautia arvensis	Blue Buttons	herbaceous	NI	N	N	--	--	--	2	--	--	--	1.5	1.1
Leersia oryzoides	Rice Cut Grass	graminoid	OBL	N	N	--	2	--	--	--	--	--	1.5	1.1
Leucanthemum vulgare	Oxeye Daisy	herbaceous	UPL	I	N	2	--	--	--	--	--	--	1.5	1.1
Lythrum salicaria	Purple Loosestrife	herbaceous	OBL	I	Y	--	--	--	--	1	--	--	0.4	0.3
Oenothera biennis	Common Evening Primrose	herbaceous	FACU	N	N	2	--	--	--	--	--	--	1.5	1.1
Oxalis stricta	Common Yellow Wood Sorrel	herbaceous	FACU	N	N	1	--	--	--	--	--	--	0.4	0.3
Parthenocissus quinquefolia	Virginia Creeper	vine	FACU	N	N	--	--	3	--	--	--	--	2.9	2.2
Phalaris arundinacea	Reed Canary Grass	graminoid	FACW	N	N	--	2	--	--	--	3	--	4.4	3.3
Picris hieracoides	Hawkweed Oxtongue	herbaceous	NI	I	N	--	--	--	--	--	--	2	1.5	1.1
Pilea nummulariifolia	Creeping Charlie	herbaceous	FACU	N	N	--	--	--	--	--	2	--	1.5	1.1
Plantago lanceolata	English Plantain	herbaceous	FACU	I	N	--	--	--	--	2	--	--	1.5	1.1
Plantago major	Great Plantain	herbaceous	FACU	I	N	--	--	--	--	--	2	--	1.5	1.1
Poa pratensis	Kentucky Blue Grass	herbaceous	FACU	I	N	--	--	2	2	1	3	--	6.4	4.8
Populus deltoides	Eastern Cottonwood	tree	FAC	N	N	--	--	--	--	1	--	--	0.4	0.3

See Notes and Abbreviations on Table 4e.

Table 4c
Area 1 – Bank Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class							Canopy Cover (%)	Species Composition
						B-02-1	B-03-1	B-04-1	B-05-1	B-06-1	FP-05-1	FP-07-1		
Potentilla norvegica	Rough Cinquefoil	herbaceous	FAC	N	N	--	--	--	--	--	2	--	1.5	1.1
Ranunculus repens	Creeping Buttercup	herbaceous	FAC	I	N	3	--	--	--	--	2	--	4.4	3.3
Rhus typhina (hirta)	Staghorn Sumac	herbaceous	UPL	N	N	2	--	--	--	--	--	--	1.5	1.1
Rumex crispus	Curly Dock	herbaceous	FAC	I	N	--	--	1	--	--	--	--	0.4	0.3
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	4	3	--	2	5	2	20.4	15.3
Solidago canadensis	Canadian Goldenrod	herbaceous	FACU	N	N	4	--	--	3	--	--	--	8.4	6.3
Sonchus asper	Spiny-Leaved Sow Thistle	herbaceous	FACU	I	N	--	--	1	--	--	--	--	0.4	0.3
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	2	2	3	2	1	--	2	9.4	7.0
Symphyotrichum novae-angliae	New England Aster	herbaceous	FACW	N	N	1	--	--	--	--	--	3	3.4	2.5
Symphyotrichum pilosum	Frostweed Aster	herbaceous	FACU	N	N	--	--	--	--	3	--	--	2.9	2.2
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	--	--	--	--	1	--	--	0.4	0.3
Trifolium pratense	Red Clover	herbaceous	FACU	I	N	--	--	--	1	--	--	--	0.4	0.3
Trifolium repens	White Clover	herbaceous	FACU	I	N	--	--	--	--	2	2	--	3.0	2.3
Verbena hastata	Blue Vervain	herbaceous	FACW	N	N	1	--	--	--	--	--	2	1.9	1.5
Veronica officinalis	Common Gypsyweed	herbaceous	FACU	I	N	--	--	--	2	--	--	--	1.5	1.1
Vitis riparia	Riverbank Grape	vine	FAC	N	N	--	2	--	--	--	--	--	1.5	1.1
Cover Type - % Cover														
Vegetation (Cover Class)						6	4	6	5	5	7	7		
Vegetation (Raw Estimates)						80	40	75	65	50	95	100		
Plant Height/Species Richness														
Plot Height Average (feet)						1.3	1.2	0.8	1.3	0.5	2.5	1.2		
Plot Height Maximum (feet)						5.5	6.3	4.9	4.2	2.2	3.5	3.9		
Species Richness						10	9	10	11	16	10	7		
													(Cover Class) Total Vegetative Percent Cover	76.0
													Relative Percent Cover of Invasive Species	3.3

See Notes and Abbreviations on Table 4e.

Table 4d
Area 1 – Floodplain Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class FP-01-1	FP-02-1	FP-03-1	FP-04-1	FP-06-1	Canopy Cover (%)	Species Composition
Acer negundo	Box Elder	herbaceous	FAC	N	N	--	--	--	--	1	0.6	0.4
Ambrosia artemisiifolia	Annual Ragweed	herbaceous	FACU	I	N	1	--	--	--	--	0.6	0.4
Arctium minus	Lesser Burrdock	herbaceous	FACU	I	N	--	3	1	--	--	4.7	2.8
Daucus carota	Queen Anne's Lace	herbaceous	UPL	I	N	--	1	--	--	--	0.6	0.4
Erigeron canadensis	Canadian horseweed	herbaceous	FACU	N	N	1	1	--	--	--	1.2	0.7
Galium album	Hedge Bedstraw	herbaceous	FACU	I	N	--	--	2	2	3	8.3	5.0
Leucanthemum vulgare	Oxeye Daisy	herbaceous	UPL	I	N	--	--	--	2	--	2.1	1.3
Lolium perenne	Perennial Rye Grass	graminoid	FACU	I	N	2	--	--	--	--	2.1	1.3
Medicago lupulina	Black Medick	herbaceous	FACU	I	N	--	1	--	--	--	0.6	0.4
Melilotus officinalis	Yellow Sweetclover	herbaceous	FACU	I	N	2	--	--	--	--	2.1	1.3
Phalaris arundinacea	Reed Canary Grass	graminoid	FACW	N	N	--	3	2	--	2	8.3	5.0
Plantago lanceolata	English Plantain	herbaceous	FACU	I	N	--	--	2	--	--	2.1	1.3
Plantago major	Great Plantain	herbaceous	FACU	I	N	2	--	--	1	1	3.3	2.0
Poa pratensis	Kentucky Blue Grass	herbaceous	FACU	I	N	4	4	4	2	3	29.0	17.5
Populus deltoides	Eastern Cottonwood	tree	FAC	N	N	1	--	--	--	--	0.6	0.4
Potentilla norvegica	Rough Cinquefoil	herbaceous	FAC	N	N	2	--	2	--	3	8.3	5.0
Ranunculus repens	Creeping Buttercup	herbaceous	FAC	I	N	--	--	--	--	1	0.6	0.4
Rumex crispus	Curly Dock	herbaceous	FAC	I	N	--	2	--	--	2	4.2	2.5
Rumex obtusifolius	Bitter Dock	herbaceous	FAC	I	N	--	--	--	--	3	4.1	2.5
Setaria faberi	Japanese Bristle Grass	graminoid	FACU	I	N	--	2	1	--	--	2.7	1.6
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	--	--	--	3	4.1	2.5
Solidago canadensis	Canadian Goldenrod	herbaceous	FACU	N	N	2	--	4	4	--	17.3	10.4
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	3	--	--	4	--	11.7	7.1
Symphyotrichum pilosum	Frostweed Aster	herbaceous	FACU	N	N	--	--	--	3	3	8.2	4.9
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	--	1	1	1	--	1.8	1.1
Trifolium pratense	Red Clover	herbaceous	FACU	I	N	4	--	--	--	--	7.6	4.6
Trifolium repens	White Clover	herbaceous	FACU	I	N	--	4	4	2	4	24.9	15.0
Verbascum blattaria	Moth Mullein	herbaceous	FACU	I	N	--	2	--	--	--	2.1	1.3
Veronica serpyllifolia	Thyme-Leaf Speedwell	herbaceous	FAC	I	N	--	--	--	2	--	2.1	1.3
Cover Type - % Cover												
Vegetation (Cover Class)						6	7	7	6	7		
Vegetation (Raw Estimates)						90	98	95	80	100		
Plant Height/Species Richness												
Plot Height Average (feet)						0.4	1.4	0.8	2	1.5		
Plot Height Maximum (feet)						2	2.3	2.8	4.1	3		
Species Richness						11	11	10	10	12		
											(Cover Class) Total Vegetative Percent Cover	93.0
											Relative Percent Cover of Invasive Species	0.0

See Notes and Abbreviations on Table 4e.

Table 4e
Area 1 – Grass Planting Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class G-01-1	G-02-1	G-03-1	G-04-1	Canopy Cover (%)	Species Composition
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	--	1	--	--	0.8	0.6
Lolium perenne	Perennial Rye Grass	graminoid	FACU	I	N	7	6	7	6	91.8	78.9
Lotus corniculatus	Bird's-foot Trefoil	herbaceous	FACU	I	N	--	--	--	4	9.5	8.2
Pilea nummulariifolia	Creeping Charlie	herbaceous	FACU	N	N	1	--	--	1	1.5	1.3
Plantago lanceolata	English Plantain	herbaceous	FACU	I	N	--	--	--	2	2.6	2.3
Plantago major	Great Plantain	herbaceous	FACU	I	N	--	1	1	--	1.5	1.3
Poa pratensis	Kentucky Blue Grass	herbaceous	FACU	I	N	--	2	--	--	2.6	2.3
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	--	--	--	2	2.6	2.3
Trifolium repens	White Clover	herbaceous	FACU	I	N	1	--	2	--	3.4	2.9
Cover Type - % Cover											
Vegetation (Cover Class)						7	7	7	7		
Vegetation (Raw Estimates)						98	95	98	95		
Plant Height/Species Richness											
Plot Height Average (feet)						0.2	0.3	0.2	0.6		
Plot Height Maximum (feet)						0.3	0.6	0.3	1.4		
Species Richness						3	4	3	5		
										(Cover Class) Total Vegetative Percent Cover	98.0
										Relative Percent Cover of Invasive Species	0.6

Abbreviations:
FAC = Facultative wetland plant - occur in wetlands and non-wetlands
FACU = Facultative upland plant - usually occur in non-wetlands, but may occur in wetlands
FACW = Facultative wetland plant - usually occur in wetlands, but may occur in non-wetlands
I = Introduced or naturalized species
N = Native species
OBL = Obligate wetland plant - almost always occur in wetlands
UPL = Upland plant - almost never occur in wetlands

Notes:
1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown on Table 3.
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 percent and represents the percent a species contributes to the total vegetative cover.

Table 4f
Area 2 – Emergent Vegetation Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class EV-05-1	Canopy Cover (%)	Species Composition
Peltandra virginica	Arrow arum	herbaceous	OBL	N	N	1	3.0	100
Cover Type - % Cover								
Vegetation (Cover Class)						1		
Vegetation (Raw Estimates)						1		
Plant Height/Species Richness								
Plot Height Average (feet)						1.1		
Plot Height Maximum (feet)						1.1		
Species Richness						1		
						(Cover Class) Total Vegetative Percent Cover		3.0
						Relative Percent Cover of Invasive Species		0.0

See Notes and Abbreviations on Table 4i.

Table 4g
Area 2 – Inundated Shoreline Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class IS-08-1	IS-09-1	IS-10-1	IS-11-1	IS-12-1	IS-13-1	Canopy Cover (%)	Species Composition
Acer rubrum	Red Maple	herbaceous	FAC	N	N	--	--	1	--	--	--	0.5	0.5
Ambrosia artemisiifolia	Annual Ragweed	herbaceous	FACU	I	N	--	--	--	1	--	--	0.5	0.5
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	--	1	--	--	--	--	0.5	0.5
Bidens cernua	Nodding Burr Marigold	herbaceous	OBL	N	N	4	--	--	--	--	1	6.8	6.3
Bidens frondosa	Devil's Pitchfork	herbaceous	FACW	N	N	--	--	2	--	--	--	1.8	1.6
Cornus spp	Dogwood Species	shrub	FACW	N	N	--	--	--	--	--	2	1.8	1.6
Digitaria ischaemum	Smooth Crab Grass	graminoid	FACU	I	N	--	--	1	--	--	--	0.5	0.5
Dipsacus laciniatus	Cut-Leaf Teasel	herbaceous	FACU	I	Y	1	1	--	--	--	--	1.0	0.9
Echinochloa crus-galli	Large Barnyard Grass	graminoid	FAC	I	N	3	--	2	--	1	3	9.1	8.4
Elymus spp	Wild rye species	graminoid	FACW	N	N	--	2	2	--	--	--	3.5	3.2
Euphorbia maculata	Spotted Spurge	herbaceous	FACU	N	N	2	2	--	--	--	--	3.5	3.2
Geum aleppicum	Yellow Avens	herbaceous	FAC	N	N	--	--	1	--	--	--	0.5	0.5
Leersia oryzoides	Rice Cut Grass	graminoid	OBL	N	N	2	--	--	--	2	--	3.5	3.2
Lolium perenne	Perennial Rye Grass	graminoid	FACU	I	N	2	--	--	6	6	4	36.6	33.7
Lotus corniculatus	Bird's-foot Trefoil	herbaceous	FACU	I	N	--	4	--	--	--	--	6.3	5.8
Lythrum salicaria	Purple Loosestrife	herbaceous	OBL	I	Y	1	--	--	--	--	--	0.5	0.5
Medicago lupulina	Black Medic	herbaceous	FACU	I	N	2	--	2	--	--	1	4.0	3.7
Oenothera biennis	Common Evening Primrose	herbaceous	FACU	N	N	--	1	2	--	--	--	2.3	2.1
Panicum dichotomiflorum	Fall Panic Grass	graminoid	FACW	N	N	--	--	2	1	--	--	2.3	2.1
Persicaria maculosa	Spotted Lady's-Thumb	herbaceous	FAC	I	N	--	2	--	--	--	--	1.8	1.6
Plantago major	Great Plantain	herbaceous	FACU	I	N	--	2	--	--	--	1	2.3	2.1
Ranunculus repens	Creeping Buttercup	herbaceous	FAC	I	N	--	1	--	--	--	--	0.5	0.5
Robinia pseudoacacia	Black Locust	tree	FACU	N	Y	--	1	--	--	--	--	0.5	0.5
Erechtites hieraciifolius	Common pilewort	herbaceous	FACU	N	N	--	1	--	--	--	--	0.5	0.5
Setaria faberi	Giant foxtail	graminoid	FACU	I	N	--	2	--	1	--	--	2.3	2.1
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	2	2	--	1	--	4.0	3.7
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	--	--	2	--	--	--	1.8	1.6
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	--	1	--	--	--	--	0.5	0.5
Trifolium pratense	Red Clover	herbaceous	FACU	I	N	--	--	1	--	--	--	0.5	0.5
Trifolium repens	White Clover	herbaceous	FACU	I	N	1	--	4	--	--	2	8.6	7.9
Cover Type - % Cover													
Vegetation (Cover Class)						5	5	6	6	6	6		
Vegetation (Raw Estimates)						60	60	75	80	85	75		
Plant Height/Species Richness													
Plot Height Average (feet)						1.2	0.7	0.4	0.8	0.8	0.4		
Plot Height Maximum (feet)						4	3	1.8	3.5	1.6	2.6		
Species Richness						9	14	13	4	4	7		
												(Cover Class) Total Vegetative Percent Cover	78.0
												Relative Percent Cover of Invasive Species	2.3

See Notes and Abbreviations on Table 4i

Table 4h
Area 2 – Bank Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class								Canopy Cover (%)	Species Composition
						B-11-1	B-12-1	B-13-1	B-14-1	B-15-1	B-16-1	B-17-1	B-18-1		
Acer negundo	Box Elder	herbaceous	FAC	N	N	--	--	--	1	--	--	--	--	0.4	0.2
Acer rubrum	Red Maple	herbaceous	FAC	N	N	--	--	--	--	--	--	1	--	0.4	0.2
Arctium minus	Lesser Burrdock	herbaceous	FACU	I	N	--	--	--	--	--	2	--	--	1.3	0.8
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	--	1	--	--	--	2	2	1	3.4	2.1
Bidens frondosa	Devil's Pitchfork	herbaceous	FACW	N	N	--	--	--	2	--	--	--	--	1.3	0.8
Chenopodium album	Lamb's Quarters	herbaceous	FACU	I	N	--	--	--	--	--	--	--	2	1.3	0.8
Cornus spp	Dogwood Species	shrub	FACW	N	N	--	--	--	--	1	--	1	--	0.8	0.5
Dactylis glomerata	Orchard Grass	graminoid	FACU	I	N	--	--	--	--	1	3	--	--	2.9	1.9
Daucus carota	Queen Anne's Lace	herbaceous	UPL	I	N	--	--	--	--	--	1	--	--	0.4	0.2
Echinochloa crus-galli	Large Barnyard Grass	graminoid	FAC	I	N	--	--	--	1	--	--	--	--	0.4	0.2
Elymus riparius	Riverbank Wild Rye	graminoid	FACW	N	N	--	4	3	--	--	--	--	--	7.3	4.6
Elymus spp	Wild Rye	graminoid	FACW	N	N	--	--	--	--	3	--	4	--	7.3	4.6
Erigeron canadensis	Canadian horseweed	herbaceous	FACU	N	N	--	--	--	--	--	--	--	--	0.0	0.0
Euthamia graminifolia	Flat-Top Goldentop	herbaceous	FAC	N	N	--	--	--	--	--	--	--	1	0.4	0.2
Festuca rubra	Red Fescue	graminoid	FACU	I	N	--	--	2	5	--	--	--	5	17.1	10.8
Galium album	Hedge Bedstraw	herbaceous	FACU	I	N	1	--	--	--	--	--	--	--	0.4	0.2
Lolium perenne	Perennial Rye Grass	graminoid	FACU	I	N	5	2	--	3	--	--	--	--	11.8	7.4
Medicago lupulina	Black Medick	herbaceous	FACU	I	N	--	--	--	--	--	1	--	--	0.4	0.2
Melilotus officinalis	Yellow Sweetclover	herbaceous	FACU	I	N	--	3	--	1	4	2	4	4	18.5	11.7
Oxalis dillenii	Slender Yellow Wood-Sorrel	herbaceous	FACU	N	N	--	--	--	--	--	1	--	--	0.4	0.2
Panicum dichotomiflorum	Fall Panic Grass	graminoid	FACW	N	N	--	--	--	--	--	1	--	--	0.4	0.2
Persicaria maculosa	Spotted Lady's-Thumb	herbaceous	FAC	I	N	--	--	--	1	--	1	2	--	2.1	1.3
Phytolacca americana	Pokeweed	herbaceous	FACU	N	N	--	--	--	--	--	--	--	3	2.6	1.6
Pilea nummulariifolia	Creeping Charlie	herbaceous	FACU	N	N	--	--	--	--	--	3	--	1	2.9	1.9
Plantago major	Great Plantain	herbaceous	FACU	I	N	--	--	2	--	--	--	--	--	1.3	0.8
Ranunculus repens	Creeping Buttercup	herbaceous	FAC	I	N	--	--	--	--	--	--	1	--	0.4	0.2
Rhus typhina (hirta)	Staghorn Sumac	herbaceous	UPL	N	N	--	--	--	--	--	--	--	2	1.3	0.8
Rumex obtusifolius	Bitter Dock	herbaceous	FAC	I	N	--	--	--	--	--	2	--	--	1.3	0.8
Setaria faberi	Japanese Bristle Grass	graminoid	FACU	I	N	2	1	2	1	1	--	2	2	6.4	4.0
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	--	2	--	--	4	2	--	7.4	4.7
Solidago canadensis	Canadian Goldenrod	herbaceous	FACU	N	N	--	--	--	--	--	--	--	2	1.3	0.8

See Notes and Abbreviations on Table 4i.

Table 4h
Area 2 – Bank Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class B-11-1	B-12-1	B-13-1	B-14-1	B-15-1	B-16-1	B-17-1	B-18-1	Canopy Cover (%)	Species Composition
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	--	--	--	--	4	4	3	1	12.4	7.9
Symphyotrichum pilosum	Frostweed Aster	herbaceous	FACU	N	N	--	--	4	--	--	--	--	--	4.8	3.0
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	1	--	1	--	--	--	--	--	0.8	0.5
Trifolium pratense	Red Clover	herbaceous	FACU	I	N	3	4	--	3	4	1	1	--	15.4	9.7
Trifolium repens	White Clover	herbaceous	FACU	I	N	--	2	4	3	3	2	4	2	18.6	11.8
Verbascum thapsus	Great Mullein	herbaceous	UPL	I	N	--	--	2	--	--	--	--	--	1.3	0.8
Vicia sativa	Common Vetch	vine	FACU	I	N	--	--	2	--	--	--	--	--	1.3	0.8
Cover Type - % Cover															
Vegetation (Cover Class)						6	6	6	7	7	6	6	6		
Vegetation (Raw Estimates)						75	85	90	95	95	90	85	85		
Plant Height/Species Richness															
Plot Height Average (feet)						0.6	0.8	0.7	1	1	1	0.9	1.2		
Plot Height Maximum (feet)						1.8	1.9	3	2.4	3.1	3.8	2.9	3.5		
Species Richness						5	7	10	10	8	15	12	12		
														(Cover Class) Total Vegetative Percent Cover	88.6
														Relative Percent Cover of Invasive Species	2.1

See Notes and Abbreviations on Table 4i.

Table 4i
Area 2 – Floodplain Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Quadrat I.D. / Scientific Name	Common Name	Growth Form	Indicator Status	Native Status	Invasive (Y/N)	Canopy Cover Class					Canopy Cover (%)	Species Composition
						FP-08-1	FP-08-2	FP-09-1	FP-09-2	B-19-1		
Arctium minus	Lesser Burrdock	herbaceous	FACU	I	N	4	2	--	--	--	9.7	5.4
Artemisia vulgaris	Mugwort	herbaceous	UPL	I	Y	1	1	--	2	--	3.3	1.9
Chenopodium album	Lamb's Quarters	herbaceous	FACU	I	N	--	--	--	2	--	2.1	1.2
Daucus carota	Queen Anne's Lace	herbaceous	UPL	I	N	1	--	--	--	--	0.6	0.3
Dipsacus laciniatus	Cut-Leaf Teasel	herbaceous	FACU	I	Y	--	--	--	2	--	2.1	1.2
Echinochloa crus-galli	Large Barnyard Grass	graminoid	FAC	I	N	--	2	2	2	1	6.9	3.9
Erigeron canadensis	Canadian horseweed	herbaceous	FACU	N	N	1	--	--	--	1	1.2	0.7
Festuca rubra	Red Fescue	graminoid	FACU	I	N	2	--	--	--	3	6.2	3.5
Galium album	Hedge Bedstraw	herbaceous	FACU	I	N	--	1	--	1	--	1.2	0.7
Leersia oryzoides	Rice Cut Grass	graminoid	OBL	N	N	--	--	--	--	2	2.1	1.2
Lolium perenne	Perennial Rye Grass	graminoid	FACU	I	N	2	3	--	--	--	6.2	3.5
Medicago lupulina	Black Medick	herbaceous	FACU	I	N	--	2	--	--	--	2.1	1.2
Melilotus officinalis	Yellow Sweetclover	herbaceous	FACU	I	N	4	5	4	4	2	37.5	21.0
Panicum capillare	Common Panic Grass	graminoid	FAC	N	N	--	--	3	--	--	4.1	2.3
Panicum dichotomiflorum	Fall Panic Grass	graminoid	FACW	N	N	3	--	--	2	2	8.3	4.7
Persicaria maculosa	Spotted Lady's-Thumb	herbaceous	FAC	I	N	3	--	4	3	2	17.9	10.0
Plantago major	Great Plantain	herbaceous	FACU	I	N	1	--	--	--	--	0.6	0.3
Poa pratensis	Kentucky Blue Grass	herbaceous	FACU	I	N	--	2	--	--	--	2.1	1.2
Polygonum aviculare	Common Knotweed	herbaceous	FACU	I	N	--	--	--	2	--	2.1	1.2
Setaria faberi	Japanese Bristle Grass	graminoid	FACU	I	N	--	1	2	--	2	4.8	2.7
Solidago altissima	Tall Goldenrod	herbaceous	FACU	N	N	--	--	--	--	3	4.1	2.3
Symphyotrichum lanceolatum	White Panicled Aster	herbaceous	FACW	N	N	--	--	--	--	2	2.1	1.2
Taraxacum officinale	Common Dandelion	herbaceous	FACU	I	N	--	1	--	--	--	0.6	0.3
Trifolium pratense	Red Clover	herbaceous	FACU	I	N	2	1	4	4	--	17.9	10.0
Trifolium repens	White Clover	herbaceous	FACU	I	N	4	4	2	4	4	32.5	18.2
Cover Type - % Cover												
Vegetation (Cover Class)						6	6	7	7	6		
Vegetation (Raw Estimates)						90	90	100	100	90		
Plant Height/Species Richness												
Plot Height Average (feet)						0.8	1.6	1.8	1.4	1		
Plot Height Maximum (feet)						3.4	3.2	4.2	3	3.4		
Species Richness						12	12	7	11	11		
											(Cover Class) Total Vegetative Percent Cover	90.5
											Relative Percent Cover of Invasive Species	3.0

See Notes on Page 2.

Table 4i
Area 2 – Floodplain Quadrat Data
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Abbreviations:
FAC = Facultative wetland plant - occur in wetlands and non-wetlands
FACU = Facultative upland plant - usually occur in non-wetlands, but may occur in wetlands
FACW = Facultative wetland plant - usually occur in wetlands, but may occur in non-wetlands
I = Introduced or naturalized species
N = Native species
OBL = Obligate wetland plant - almost always occur in wetlands
UPL = Upland plant - almost never occur in wetlands

Notes:
1. Vegetative cover of individual species estimated at each plot using cover class midpoints shown on Table 3.
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 percent and represents the percent a species contributes to the total vegetative cover.

Table 4j
Area 2 Quadrat Data Summary
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Restored Habitat	Total Vegetative Cover (%)	Invasive Species Cover (%)	Total Species Observed	Dominant Species Observed (Common Name)
Emergent Vegetation	23	0.0	3	Water speedwell
Inundated Shoreline	70	4.8	58	Perennial rye grass, tall goldenrod, rice cut grass, common rush, large barnyard grass, white panicled aster, common boneset, nodding burr marigold
Bank	79	2.7	69	Red fescue, tall goldenrod, white panicled aster, white clover, yellow sweetclover, red clover, perennial rye grass
Floodplain	92	1.6	38	White clover, yellow sweetclover, Kentucky blue grass, red clover, spotted lady's thumb
Grass/Maintained[1]	98	0.7	9	Perennial rye grass

Notes:
1. Grass/maintained habitat was only present in Area 1.
2. Vegetative cover of individual species estimated at each plot using cover class midpoints shown on Table 3.
3. Invasive plant species are those identified and listed under New York State Prohibited and Regulated Invasive Plants, published by the NYSDEC and the New York State Department of Agriculture and Markets in September 10, 2014.
4. Dominant plant species observed within the sampled restored vegetative communities were determined by applying the 50/20 rule.

Table 5
Observed Vegetation Species
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Scientific Name	Common Name	Area 1	Area 2
Acer negundo	Box Elder	x	x
Acer rubrum	Red Maple	x	x
Acer saccharinum	Silver Maple	x	x
Acer saccharum	Sugar Maple	x	x
Agrostis gigantea	Redtop	x	--
Ambrosia artemisiifolia	Annual Ragweed	x	x
Amelanchier arborea	Serviceberry	x	x
Arctium minus	Lesser Burrdock	x	x
Aronia melanocarpa	Black Chokeberry	x	x
Artemisia vulgaris	Mugwort	x	x
Betula nigra	River Birch	x	x
Bidens cernua	Nodding Burr Marigold	x	x
Bidens frondosa	Devil's Pitchfork	x	x
Calamagrostis canadensis	Bluejoint	x	--
Calystegia sepium	Hedge False Bindweed	x	--
Carya cordiformis	Bitternut hickory	x	--
Carya ovata	Shagbark hickory	x	--
Ceratophyllum demersum	Coon's Tail	--	x
Chenopodium album	Lamb's Quarters	--	x
Cirsium arvense	Canadian Thistle	--	x
Cornus amomum	Silky Dogwood	x	x
Cornus racemosa	Gray Dogwood	x	x
Cornus sericea	Red-osier Dogwood	x	x
Cornus spp	Dogwood Species	--	x
Corylus americana	American Hazelnut	x	--
Cyperus spp	Sedge Species	x	--
Cyperus strigosus	Straw-Color Flat Sedge	x	--
Dactylis glomerata	Orchard Grass	--	x
Daucus carota	Queen Anne's Lace	x	x
Digitaria ischaemum	Smooth Crab Grass	--	x
Dipsacus laciniatus	Cut-Leaf Teasel	x	x
Echinochloa crus-galli	Large Barnyard Grass	x	x
Elodea canadensis	Canadian Waterweed	--	x
Elymus riparius	Riverbank Wild Rye	--	x
Elymus spp	Wild Rye Species	--	x
Epilobium coloratum	Eastern Willowherb	x	--
Equisetum arvense	Field Horsetail	x	--
Erechtites hieraciifolius	Common Pilewort	x	x
Erigeron canadensis	Canadian Horseweed	x	x
Eupatorium perfoliatum	Common Boneset	x	--
Euphorbia maculata	Spotted Spurge	--	x
Euthamia graminifolia	Flat-Top Goldentop	x	x
Festuca rubra	Red Fescue	x	x
Filipendula ulmaria	Meadowsweet	x	x
Fragaria virginiana	Virginia Strawberry	x	--
Fraxinus pennsylvanica	Green Ash	x	--
Galium album	Hedge Bedstraw	x	x
Galium mollugo	White Bedstraw	--	x
Galium palustre	Common Marsh Bedstraw	x	--

See Note on Page 3.

Table 5
Observed Vegetation Species
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Scientific Name	Common Name	Area 1	Area 2
Geum aleppicum	Yellow Avens	x	x
Green algae	Green Algae	x	--
Impatiens capensis	Spotted Touch-Me-Not	x	--
Juncus effusus	Common Rush	x	--
Knautia arvensis	Blue Buttons	x	--
Leersia oryzoides	Rice Cut Grass	x	x
Leucanthemum vulgare	Oxeye Daisy	x	--
Lolium perenne	Perennial Rye Grass	x	x
Lonicera sp.	Lonicera sp.	--	x
Lotus corniculatus	Bird's-foot Trefoil	x	x
Lycopus americanus	American Water Horehound	x	--
Lythrum salicaria	Purple Loosestrife	x	x
Medicago lupulina	Black Medic	x	x
Melilotus officinalis	Yellow Sweetclover	x	x
Oenothera biennis	Common Evening Primrose	x	x
Oxalis dillenii	Slender Yellow Wood-Sorrel	--	x
Oxalis stricta	Common Yellow Wood Sorrel	x	--
Panicum capillare	Common Panic Grass	--	x
Panicum dichotomiflorum	Fall Panic Grass	--	x
Parthenocissus quinquefolia	Virginia Creeper	x	--
Peltandra virginica	Arrow Arum	--	x
Persicaria maculosa	Spotted Lady's-Thumb	--	x
Persicaria pensylvanica	Pinkweed	x	--
Phalaris arundinacea	Reed Canary Grass	x	--
Phytolacca americana	American Pokeweed	--	x
Picris hieracoides	Hawkweed Oxtongue	x	--
Pilea nummulariifolia	Creeping Charlie	x	x
Plantago lanceolata	English Plantain	x	--
Plantago major	Great Plantain	x	x
Poa pratensis	Kentucky Blue Grass	x	--
Polygonum aviculare	Common Knotweed	--	x
Populus deltoides	Eastern Cottonwood	x	--
Potentilla norvegica	Rough Cinquefoil	x	--
Prunus serotina	Black Cherry	x	x
Quercus palustris	Pin Oak	x	--
Quercus rubra	Red Oak	--	x
Ranunculus repens	Creeping Buttercup	x	x
Rhus typhina	Staghorn Sumac	x	x
Robinia pseudoacacia	Black Locust	--	x
Rumex crispus	Curly Dock	x	--
Rumex obtusifolius	Bitter Dock	x	x
Salix nigra	Black Willow	x	x
Salix sericea	Silky Willow	x	--
Setaria faberi	Giant Foxtail	x	x
Setaria pumila	Yellow foxtail	x	--
Solidago altissima	Tall Goldenrod	x	x
Solidago canadensis	Canadian Goldenrod	x	x
Sonchus asper	Spiny-Leaved Sow Thistle	x	--
Symphyotrichum lanceolatum	White Panicled Aster	x	x

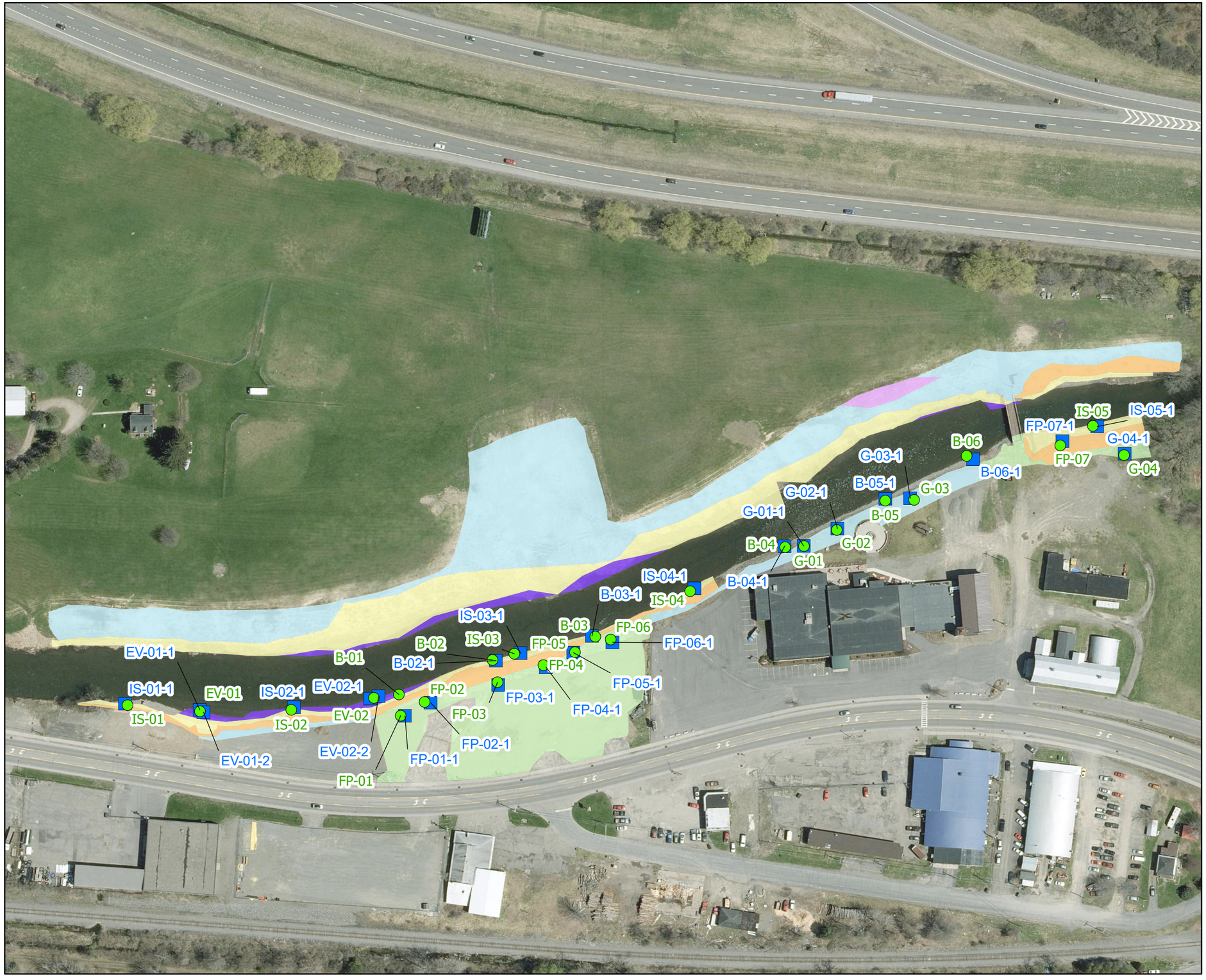
See Note on Page 3.

Table 5
Observed Vegetation Species
OU-2 Restoration Monitoring Report
Cortland-Homer Former MGP Site - Homer, New York

Scientific Name	Common Name	Area 1	Area 2
Symphyotrichum novae-angliae	New England Aster	x	--
Symphyotrichum pilosum	Frostweed Aster	x	x
Symphyotrichum puniceum	Purple-Stemmed Aster	x	--
Taraxacum officinale	Common Dandelion	x	x
Trifolium pratense	Red Clover	x	x
Trifolium repens	White Clover	x	x
Tussilago farfara	Colt's Foot	x	--
Vaccinium angustifolium	Late Lowbush Blueberry	x	--
Verbascum blattaria	Moth Mullein	x	--
Verbascum thapsus	Great Mullein	--	x
Verbena hastata	Blue Vervain	x	--
Veronica anagallis-aquatica	Water Speedwell	x	--
Veronica officinalis	Common Gypsyweed	x	--
Veronica serpyllifolia	Thyme-Leaf Speedwell	x	--
Viburnum acerifolium	Mapleleaf Viburnum	x	--
Viburnum dentatum	Arrowwood	x	x
Vicia sativa	Common Vetch	--	x
Vitis riparia	Riverbank Grape	x	--
Total Species (OU-2):	**116**	**93**	**71**

Note:
1. Plant species observed within the restored habitats during monitoring conducted September 25 to 27, 2023.

Figures



LEGEND

- EMERGENT VEGETATION PLANTING AREA
- INUNDATED SHORELINE PLANTING AREA
- BANK PLANTING AREA
- FLOODPLAIN PLANTING AREA
- WET MEADOW PLANTING AREA
- GRASS PLANTING AREA
- QUADRAT
- RADIAL PLOT

NOTES:

1. PROJECTION: NAD 1983 STATEPLANE NEW YORK CENTRAL FIPS 3102 FEET
2. 2022 AERIAL IMAGERY OBTAINED FROM ESRI IMAGE SERVICE

0 125 250

GRAPHIC SCALE IN FEET

N

NYSEG - CORTLAND-HOMER FORMER MGP SITE
HOMER, NEW YORK
2023 RESTORATION MONITORING REPORT

AREA 1
VEGETATION MONITORING LOCATIONS

ARCADIS

FIGURE
1

Path: T:_ENV\NYSEG\Cortland-Homer\VegetationMonitoring\VegMonitoring_20231\2023 Restoration Monitoring Report.aprx\Figure 1 AREA 1 VEGETATION MONITORING PHOTOGRAPH LOCATIONS Last Saved By: hsv3848 5/10/2024

LEGEND

- EMERGENT PLANTING AREA
- INUNDATED SHORELINE PLANTING AREA
- BANK PLANTING AREA
- FLOOD PLAIN PLANTING AREA
- QUADRAT
- RADIAL PLOT

NOTES:

1. PROJECTION: NAD 1983 STATEPLANE NEW YORK CENTRAL FIPS 3102 FEET
2. 2022 AERIAL IMAGERY OBTAINED FROM ESRI IMAGE SERVICE

0 100 200

GRAPHIC SCALE IN FEET

N

NYSEG - CORTLAND-HOMER FORMER MGP SITE
HOMER, NEW YORK
2023 RESTORATION MONITORING REPORT

AREA 2
VEGETATION MONITORING LOCATIONS

ARCADIS

FIGURE
2

Path: T:_ENV\NYSEG\Cortland-Homer\VegetationMonitoring\VegMonitoring_2023\2023 Restoration Monitoring Report.aprx\Figure 2 AREA 2 VEGETATION MONITORING LOCATIONSRING PHOTOGRAPH LOCATIONS Last Saved By: hav3646 5/13/2024

LEGEND

PHOTO LOCATION WITH DIRECTION

NOTES:

1. PROJECTION: NAD 1983 STATEPLANE NEW YORK CENTRAL FIPS 3102 FEET
2. 2022 AERIAL IMAGERY OBTAINED FROM ESRI IMAGE SERVICE

0 125 250

GRAPHIC SCALE IN FEET

N

NYSEG - CORTLAND-HOMER FORMER MGP SITE
HOMER, NEW YORK
2023 RESTORATION MONITORING REPORT

AREA 1 POST-CONSTRUCTION MONITORING PHOTOGRAPH LOCATIONS

ARCADIS

FIGURE
3

Path: T:_ENV\NYSEG\Cortland-Homer\VegetationMonitoring\VegMonitoring_2023\2023 Restoration Monitoring Report.aprx\Figure 3 AREA 1 POST-CONSTRUCTION MONITORING PHOTOGRAPH LOCATIONS Last Saved By: htn9848 5/10/2024

LEGEND

PHOTO LOCATION WITH DIRECTION

NOTES:

1. PROJECTION: NAD 1983 STATEPLANE NEW YORK CENTRAL FIPS 3102 FEET
2. 2022 AERIAL IMAGERY OBTAINED FROM ESRI IMAGE SERVICE

0 100 200

GRAPHIC SCALE IN FEET

N

NYSEG - CORTLAND-HOMER FORMER MGP SITE
HOMER, NEW YORK
2023 RESTORATION MONITORING REPORT

AREA 2 POST-CONSTRUCTION MONITORING PHOTOGRAPH LOCATIONS

ARCADIS

FIGURE
4

Path: T:_ENV\NYSEG\Cortland-Homer\VegetationMonitoring\VegMonitoring_2023\2023 Restoration Monitoring Report.aprx\Figure 4 AREA 2 POST-CONSTRUCTION MONITORING PHOTOGRAPH LOCATIONS Last Saved By: hsv9848 5/10/2024

Attachment 1

Example Field Forms

B0013137.0012-NYSEG Cortland Homer Location ID: EV-01

Quadrat Number : EV-01				
Habital Type : Emergent				
Survey Date : 09/25/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Water Speedwell	Veronica anagallis-aquatica	45	Non-Native	Good
Green Algae	Green algae	5	Native	Good

Total Cover (%)		50		
Native Cover (%)		5		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Eastern Cottonwood	Populus deltoides	0	1	0	100
				Stems per acre	0
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	1
Herbaceous	25

Dominant Herbaceous Species

Common Name	Scientific Name
Water Speedwell	Veronica anagallis-aquatica
Rice Cut Grass	Leersia oryzoides

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : EV-01 Q2				
Habital Type : Emergent				
Survey Date : 09/25/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Water Speedwell	Veronica anagallis-aquatica	45	Non-Native	Good
Green Algae	Green algae	5	Native	Good

Total Cover (%)		50		
Native Cover (%)		5		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Quadrat Number : EV-05				
Habital Type : Emergent				
Survey Date : 09/27/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Arrow Arum	Peltandra virginica	1	Native	Good

Total Cover (%)		1		
Native Cover (%)		1		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Arrow Arum	Peltandra virgnica	2	0	0	100
Coon's Tail	Ceratophylum demersum	0	1	0	100
Canadian Waterweed	Elodea canadensis	0	1	0	100
				Stems per acre	200
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	0
Herbaceous	10

Dominant Herbaceous Species

Common Name	Scientific Name
Not assessed	Not assessed

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : IS-04				
Habital Type : Inundated Shoreline				
Survey Date : 09/25/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Black Willow	Salix nigra	10	Native	Good
Eastern Cottonwood	Populus deltoides	5	Native	Good
Red-osier Dogwood	Cornus sericea	5	Native	Good
Herbs				
Common Pilewort	Erechtites hieraciifolius	5	Native	Good
Large Barnyard Grass	Echinochloa crus-galli	8	Non-Native	Good
Bluejoint	Calamagrostis canadensis	5	Native	Good
Colt's Foot	Tussilago farfara	5	Non-Native	Good
Tall Goldenrod	Solidago altissima	15	Native	Good

Total Cover (%)		58		
Native Cover (%)		45		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Black Willow	Salix nigra	8	0	0	100
Red-osier Dogwood	Cornus sericea	1	0	0	100
Eastern Cottonwood	Populus deltoides	0	1	0	100
				Stems per acre	900
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	15
Herbaceous	30

Dominant Herbaceous Species

Common Name	Scientific Name
Common Boneset	Eupatorium perfoliatum
White Panicled American Aster	Symphyotrichum lanceolatum
Tall Goldenrod	Solidago altissima

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : IS-12				
Habital Type : Inundated Shoreline				
Survey Date : 09/27/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Tall Goldenrod	Solidago altissima	1	Native	Good
White Clover	Lolium perenne	80	Non-Native	Good
Rice Cut Grass	Leersia oryzoides	5	Native	Good
Large Barnyard Grass	Echinochloa crus-galli	3	Non-Native	Good
Tall Goldenrod	Solidago altissima	15	Native	Good

Total Cover (%)		104		
Native Cover (%)		21		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Silky Dogwood	Cornus amomum	1	0	0	100
Red-osier Dogwood	Cornus sericea	1	0	0	100
Southern Arrowwood	Viburnum dentatum	1	0	0	100
				Stems per acre	300
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	3
Herbaceous	77

Dominant Herbaceous Species

Common Name	Scientific Name
Perennial Rye Grass	Lolium perenne
Large Barnyard Grass	Echinochloa crus-galli

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : B-06				
Habital Type : Bank				
Survey Date : 09/26/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Eastern Cottonwood	Populus deltoides	1	Native	Good
Herbs				
White Oldfield American-Aster	Symphyotrichum pilosum	15	Native	Good
White Panicled American-Aster	Symphyotrichum lanceolatum	2	Native	Good
English Plantain	Plantago lanceolata	5	Non-Native	Good
Hedge Bedstraw	Galium album	20	Non-Native	Good
Yellow Avens	Geum aleppicum	3	Native	Good
White Clover	Trifolium repens	5	Non-Native	Good
Common Dandelion	Taraxacum officinale	1	Non-Native	Good
Kentucky Blue Grass	Poa pratensis	2	Non-Native	Good
Tall goldenrod	Solidago altissima	10	Native	Good
Purple Loosestrife	Lythrum salicaria	2	Non-Native (Invasive)	Good
Common Wormwood	Artemisia vulgaris	5	Non-Native (Invasive)	Good
Canadian horseweed	Erigeron canadensis	2	Native	Good

Total Cover (%)		73		
Native Cover (%)		33		
Invasive/Target Weed (%)		7		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Staghorn Sumac	Rhus typhina	0	1	0	0
Black Willow	Salix nigra	2	0	0	100
Red-osier Dogwood	Cornus sericea	4	0	0	100
Downy Serviceberry	Amelanchier arborea	1	0	0	100
				Stems per acre	700
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	8
Herbaceous	60

Dominant Herbaceous Species

Common Name	Scientific Name
Common Wormwood	Artemisia vulgaris
White Panicled American-Aster	Symphyotrichum lanceolatum
Tall Goldenrod	Solidago altissima

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : B-15				
Habital Type : Bank				
Survey Date : 09/27/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Dogwood Species	Cornus spp	3	Native	Good
Herbs				
White Panicled American-Aster	Symphyotrichum lanceolatum	30	Native	Good
Yellow Sweetclover	Melilotus officinalis	25	Non-Native	Good
Red Clover	Trifolium pratense	30	Non-Native	Good
White Clover	Trifolium repens	20	Non-Native	Good
Orchard Grass	Dactylis glomerata	1	Non-Native	Good
Japanee Bristle Grass	Setaria faberi	2	Non-Native	Good
Wild Rye Species	Elymus spp	15	Native	Good

Total Cover (%)		126		
Native Cover (%)		45		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Staghorn Sumac	Rhus typhina	0	2	0	0
Red-osier Dogwood	Cornus sericea	3	0	0	100
Dogwood Species	Cornus spp	7	0	0	100
Southern Arrowwood	Viburnum dentatum	2	0	0	100
Downy Serviceberry	Amelanchier arborea	5	0	0	100
Silky Dogwood	Cornus amonum	2	0	0	100
Black Chokeberry	Aronia melanocarpa	1	0	0	100
				Stems per acre	2000
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	25
Herbaceous	80

Dominant Herbaceous Species

Common Name	Scientific Name
Yellow Sweetclover	Melilotus officinalis
Red Clover	Trifolium pratense
Wild Rye Species	Elymus spp

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : FP-02				
Habital Type : Floodplain				
Survey Date : 09/25/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Lesser Burrdock	Arctium minus	15	Non-Native	Good
Japanese Bristle Grass	Setaria faberi	10	Non-Native	Good
Reed Canary Grass	Phalaris arundinacea	15	Native	Good
White Clover	Trifolium repens	45	Non-Native	Good
Curly Dock	Rumex crispus	5	Non-Native	Good
Black Medick	Medicago lupulina	3	Non-Native	Good
Common Dandelion	Taraxacum officinale	1	Non-Native	Good
Kentucky Blue Grass	Poa pratensis	30	Non-Native	Good
Queen Anne's Lace	Daucus carota	1	Non-Native	Good
Moth Mullein	Verbascum blattaria	5	Non-Native	Good
Canadian horseweed	Erigeron canadensis	3	Native	Good

Total Cover (%)		133		
Native Cover (%)		18		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Black Willow	Salix nigra	1	0	0	100
Red-osier Dogwood	Cornus sericea	3	0	0	100
Downy Serviceberry	Amelanchier arborea	2	0	0	100
Black Chokeberry	Aronia melanocarpa	4	0	0	100
Southern Arrowwood	Viburnun dentatum	2	0	0	100
Late Lowbush Blueberry	Vaccinium angusifolium	1	0	0	100
American Hazelnut	Corylus americana	1	0	0	100
				Stems per acre	1400
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	2
Shrub	15
Herbaceous	90

Dominant Herbaceous Species

Common Name	Scientific Name
Not assesed	Not assessed

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : FP-09				
Habital Type : Floodplain				
Survey Date : 09/26/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Japanese Bristle Grass	Setaria faberi	8	Non-Native	Good
Common Panic Grass	Panicum capillare	15	Native	Good
White Clover	Trifolium repens	10	Non-Native	Good
Large Barnyard Grass	Echinochloa crus-galli	5	Non-Native	Good
Spotted Lady's Thumb	Persicaria maculosa	35	Non-Native	Good
Red Clover	Trifolium pratense	30	Non-Native	Good
Yellow Sweetclover	Melilotus officinalis	25	Non-Native	Good

Total Cover (%)		128		
Native Cover (%)		15		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat

Survival

Radial Dimensions	0.1	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Gray Dogwood	Salix nigra	6	0	0	100
Red-osier Dogwood	Cornus sericea	13	0	0	100
Black Cherry	Prunus serotina	2	0	0	100
Southern Arrowwood	Viburnum dentatum	8	0	0	100
Northern Red Oak	Quercus rubra	3	0	0	100
Downy Serviceberry	Amelanchier arborea	15	0	0	100
Black Chokeberry	Aronia melanocarpa	2	0	0	100
Sugar Maple	Acer saccharum	2	0	0	100
Silky Dogwood	Cornus amomum	1	0	0	100
Dogwood Species	Cornus spp	6	0	0	100
				Stems per acre	580
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	10
Shrub	20
Herbaceous	85

Dominant Herbaceous Species

Common Name	Scientific Name
Not assesed	Not assessed

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Quadrat Number : FP-09 Q2				
Habital Type : Floodplain				
Survey Date : 09/27/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Red Clover	Trifolium pratense	30	Non-Native	Good
Yellow Sweetclover	Melilotus officinalis	40	Non-Native	Good
White Clover	Trifolium repens	25	Non-Native	Good
Spotted Lady's Thumb	Persicaria maculosa	20	Non-Native	Good
Large Barnyard Grass	Echinochloa crus-galli	5	Non-Native	Good
Fall Panic Grass	Panicum dichotomiflorum	5	Native	Good
Hedge Bedstraw	Galium album	2	Non-Native	Good
Cut-Leaf Teasel	Dipsacus laciniatus	10	Non-Native (Invasive)	Good
Lamb's Quarters	Chenopodium album	5	Non-Native	Good
Common Knotweed	Polygonum aviculare	5	Non-Native	Good
Common Wormwood	Artemisia vulgaris	5	Non-Native (Invasive)	Good

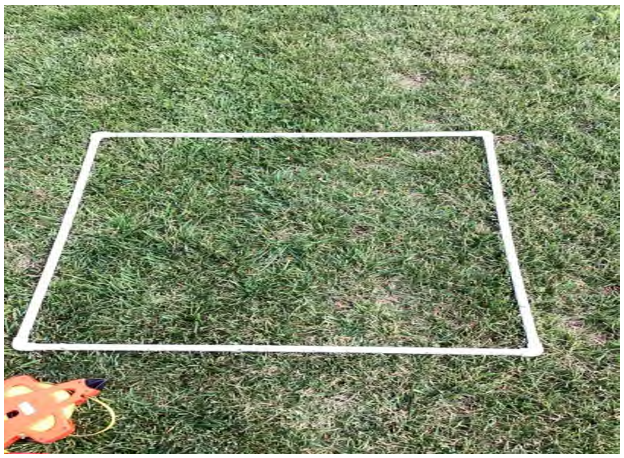
Total Cover (%)		152		
Native Cover (%)		5		
Invasive/Target Weed (%)		15		

Photograph of Aerial Cover Quadrat

Quadrat Number : G-01				
Habital Type : Grass/Maintained				
Survey Date : 09/25/2023				
Staff : Jason Vogel				
Aerial Cover				
Dimensions	1	meters		
Common Name	**Scientific Name**	**Absolute Cover %**	**Nativity (native, non native, weed)**	**Vigor**
Trees				
Shrubs				
Herbs				
Perennial Rye Grass	Lolium perenne	95	Non-Native	Good

Total Cover (%)		95		
Native Cover (%)		0		
Invasive/Target Weed (%)		0		

Photograph of Aerial Cover Quadrat



Survival

Radial Dimensions	0.01	acres

Common Name	Scientific Name	Alive (Installed)	Alive (Recruited)	Dead (Installed)	Survival (%)
Red-osier Dogwood	Cornus sericea	1	0	0	100
Downy Serviceberry	Amelanchier arborea	1	0	0	100
				Stems per acre	200
				Total % Survival	100

Radial Aerial Cover

Strata	Absolute Cover Estimate (%)
Tree	0
Shrub	2
Herbaceous	93

Dominant Herbaceous Species

Common Name	Scientific Name
Perennial Rye Grass	Lolium perenne
White Clover	Trifolium repens

Note: Survivability calculations are limited to plantings, and do not include recruited plants.

Photograph of Survivability Radius

Attachment 2

Monitoring Inspection Checklists

Bi-Annual Monitoring Inspection Checklist
Cortland-Homer Former MGP Site

I. GENERAL INFORMATION

Inspection Date: September 25, 2023 - Area 1 (Western Shoreline)
Conducted By: Jason Vogel, Anna Butler
Weather Conditions: High 50s to mid-60s F, Overcast with light drizzle,winds calm <10 mph

II. INSPECTION SUMMARY

1. Vegetation

A. Woody Vegetation *(Note evidence of damage from trespassing or herbivory, note physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

Dogwood live stakes that were present were healthy along western shoreline. Natural recruitment - primarily eastern cottonwood found within inundated shoreline areas.

Signs of herbivore damage (beaver chew) to willow shrubs. Approximately 10 to 20% survival for live stakes (see Table 2b). No tree collar protection on any tree plantings.

Some observations of herbivore digging around tree installations. Human disturbance of pole and wire staking observed on tree plantings.

B. Herbaceous Vegetation *(Note evidence of areas of bare/sparse vegetation; note any damage from trespassing or herbivory; note any physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

Inundated shoreline and emergent vegetation cover was relatively low typically less than 50%. Bank and surrounding floodplain cover was well established and vegetation was healthy. Grass and maintained planting areas found within the Living Museum property were well established and providing stable herbaceous ground cover.

C. Presence of Invasive Species *(Note the invasive species present. If a quantitative assessment is performed, complete the attached field form for each planting area. If "prohibited" invasive species are observed, record the species, location, and size of the population observed.)*

Lonicera spp. - bush honeysuckle present in a few western top of bank areas. Mugwort, cut-leaved teasel, and purple loosestrife were observed within inundated shoreline and bank restored habitat areas.

D. Vegetation below MHWL *(Note evidence of damage from trespassing or herbivory, note physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

No emergent plugs observed. Natural recruitment of water speedwell was found in emergent area.

2. Riverbank Stability *(Note any physical changes since last inspection; note evidence of significant erosion [e.g., slope failure, ruts, gullies, washouts, or sloughing]; note other conditions that could jeopardize the performance of the completed remediation actions. If a quantitative assessment is performed, complete the attached field form for each transect.)*

Coir logs that remain were in place. No significant changes were observed to the minor bank erosion areas noted during the spring inspections. Minor sloughing within some of the soil-choke/rip-rap bank areas were noted but not significant to impact overall stability. Some portions of the inundated shoreline remained washed out from periodic high flows, but but some sediment deposition was present in near-shore areas.

3. Other Observations *(Confirm that repair/maintenance activities identified during prior inspection, if any, have been performed; note any other general observations.)*

III. FOLLOW-UP MAINTENANCE AND REPAIR ACTIVITIES

Recommend continued invasive species removal/treatment. Tree replacement with herbivore protection is recommended. Meader surveys during spring 2024 site inspection will be used to quantify the potential re-installation needs of emergent vegetation plugs and live stakes to improve vegetative cover.

ATTACH ADDITIONAL INFORMATION AS APPROPRIATE

Bi-Annual Monitoring Inspection Checklist
Cortland-Homer Former MGP Site

I. GENERAL INFORMATION

Inspection Date: September 26-27, 2023 - Area 2
Conducted By: Jason Vogel, Nick Firman, Anna Butler
Weather Conditions: High 40s to mid-60s F, Partly cloudy to sunny, Winds calm <10 mph

II. INSPECTION SUMMARY

1. Vegetation

A. Woody Vegetation *(Note evidence of damage from trespassing or herbivory, note physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

Trees are primarily alive with three dead and some with stress with limited basal growth. Tree counts and species not matching as-built information. Herbivore damage to some shrubs, primarily due to beaver and deer. Shrubs that remained were primarily healthy. Upper bank and floodplain shrub survival appeared to be relatively high.

B. Herbaceous Vegetation *(Note evidence of areas of bare/sparse vegetation; note any damage from trespassing or herbivory; note any physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

The upland support area indicated establishment of herbaceous groundcover that was improved from spring site inspection and stable within this non-jurisdictional restored area.
The inundated shoreline and lower bank herbaceous vegetation indicated relatively stable cover with only some minor bare spots.
The bank and floodplain herbaceous vegetation indicated relatively stable and high cover throughout most of the restored areas. Some human use trails near coir log line is present..

C. Presence of Invasive Species *(Note the invasive species present. If a quantitative assessment is performed, complete the attached field form for each planting area. If "prohibited" invasive species are observed, record the species, location, and size of the population observed.)*

Black locust shrubs on upper bank were treated using foliar application. Additionally, mugwort was observed primarily around tree and mulched planting areas. Purple loosestrife was observed primarily in the lower bank areas. Cut-leaf teasel and thistle species were treated throughout the restored areas.

D. Vegetation below MHWL *(Note evidence of damage from trespassing or herbivory, note physical changes since last inspection. If a quantitative assessment is performed, complete the attached field form for each planting area.)*

Some Arrow arum plugs were present along the eastern shoreline. Limited natural recruitment of submerged aquatic vegetation was observed along both shorelines. Live stakes were not observed along either restored shorelines where plantings were made.

2. Riverbank Stability *(Note any physical changes since last inspection; note evidence of significant erosion [e.g., slope failure, ruts, gullies, washouts, or sloughing]; note other conditions that could jeopardize the performance of the completed remediation actions. If a quantitative assessment is performed, complete the attached field form for each transect.)*

Coir logs remain stable throughout the banks. Bank soil primarily stable. Minor bank sloughing in transitional/lower bank from both human use and natural disturbances.
No significant changes since spring site inspection.

3. Other Observations *(Confirm that repair/maintenance activities identified during prior inspection, if any, have been performed; note any other general observations.)*

None.

III. FOLLOW-UP MAINTENANCE AND REPAIR ACTIVITIES

Recommend re-seeding the floodplain and bank area to promote increased species diversity, as clover species were dominate. Tree replacements will be specified and planted during the fall of 2024. Tree collar protection is recommended to avoid herbivore damage. Continued treatment of invasive species through removal/treatment. Shrub replacements within lower bank and floodplain will be required to meet performance criteria. Assessment of live stake replacement will be made along with natural recruitment of emergent vegetation during spring 2024 site inspections.

ATTACH ADDITIONAL INFORMATION AS APPROPRIATE

Attachment 3

Area 1 and Area 2 Photograph Log

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P1

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P1.

Coordinates:
42.622328, -76.183639

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Northeast.

Photo: P2

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P2.

Coordinates:
42.622357, -76.183528

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P3

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P3.

Coordinates:
42.621557, -76.183739

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing South.

Photo: P4

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P4.

Coordinates:
42.620648, -76.183818

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Northeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P5

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P5.

Coordinates:
42.621196, -76.183360

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photo: P6

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P6.

Coordinates:
42.620679, -76.183094

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing South.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P7

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P7.

Coordinates:
42.620039, -76.182952

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing North.

Photo: P8

Location:
Area 1

Description:
Fixed-Point Photo Location P8.

Coordinates:
42.619899, -76.182847

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P9

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P9.

Coordinates:
42.619150, -76.182337

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photo: P10

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P10.

Coordinates:
42.618981, -76.182331

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P11

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P11.

Coordinates:
42.618670, -76.182358

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing North.

Photo: P12

Location:
Area 1 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P12.

Coordinates:
42.618476, -76.181989

Date: 09/26/2023

Taken By:
Nick Firman

Notes:
Facing North.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P21

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P21.

Coordinates:
42.611597, -76.183211

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northeast.

Photo: P22

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P22.

Coordinates:
42.611581, -76.183231

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southwest.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P23

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P23.

Coordinates:
42.611424, -76.183469

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southeast

Photo: P24

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P24.

Coordinates:
42.610815, -76.183410

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P25

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P25.

Coordinates:
42.610308, -76.181011

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photo: P26

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P26.

Coordinates:
42.610139, -76.181170

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P27

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P27.

Coordinates:
42.610467, -76.181748

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southwest.

Photo: P28

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P28.

Coordinates:
42.610661, -76.182411

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P29

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P29.

Coordinates:
42.610751, -76.182382

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photo: P30

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P30.

Coordinates:
42.610841, -76.182750

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P31

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P31.

Coordinates:
42.611036, -76.183092

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing South.

Photo: P32

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P32.

Coordinates:
42.611201, -76.182995

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P33

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P33.

Coordinates:
42.611451, -76.183020

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southwest.

Photo: P34

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P34.

Coordinates:
42.611617, -76.182749

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southeast.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P35

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P35.

Coordinates:
42.611898, -76.182795

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southwest.

Photo: P36

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P36.

Coordinates:
42.611778, -76.182308

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Northwest.

Photograph Log

Fixed Assessment Photos
NYSEG – Cortland-Homer Former MGP Site
OU-2, Area 1 & Area 2
Homer, New York

Photo: P37

Location:
Area 2 – Fixed Point Photo Locations

Description:
Fixed-Point Photo Location P37.

Coordinates:
42.612462, -76.182751

Date: 09/27/2023

Taken By:
Nick Firman

Notes:
Facing Southwest.