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Olmsted Center
for Landscape Preservation

Pilot Cultural Landscape Inventories for the New York State Barge Canal

Erie Canalway National Heritage Corridor



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Introduction, Conclusions, and Recommendations

Pilot Inventory Methods and Findings

Pilot Inventory Data – Land-Cut Canal

Pilot Inventory Data – Canalized River

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Cover Image: Drone aerial view of the land-cut section of the Erie Barge Canal looking west toward Fancher Road near Hulberton, Orleans County, New York, June 2022. (Todd Lippa, New York State Canal Corporation)

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John Auwaerter and George W. Curry

EXECUTIVE SUMMARY

The New York State Barge Canal, built between 1905 and 1918, forms the spine of the Erie Canalway National Heritage Corridor established by Congress in 2000 to preserve and interpret the important historic, cultural, recreational, educational, scenic, and natural resources that define its distinctive sense of place. The Barge Canal system, designated a National Historic Landmark in 2016, includes 450 miles of navigation channel connecting the Hudson River estuary to Lake Champlain, the Finger Lakes, and the Great Lakes.

The cultural landscape of the Barge Canal includes all of the outdoor environment that encompasses the waterway, buildings, structures, natural systems, vegetation, topography, small-scale features, and archeological sites, along with its less tangible spatial organization, cultural traditions, land uses, and views and vistas. The landscapes of the Barge Canal, including lands adjacent and visible from the waterway, have seen substantial changes over the past decades and sections are facing development pressure. Despite this, the Barge Canal overalls retains its historic and scenic urban, rural, and natural character.

PROJECT PURPOSE AND SCOPE

The Erie Canalway National Heritage Corridor (ERCA) and its partners seek better language to identify, describe, and rank the distinctive landscapes of the New York State Barge Canal as the basis for their protection. This study by the SUNY College of Environmental Science and Forestry (ESF) addressed this need by piloting methods of landscape inventory and evaluation adapted to the canal's linear landscape and broader setting. The pilot inventories demonstrated different ways in which historic and scenic data on Barge Canal landscapes can be collected to inform decisions about land management and development by the corridor's complex array of state, municipal, and private property owners.

The original project scope was to develop and implement a methodology for inventorying and evaluating cultural landscapes along the New York State Barge Canal system and to identify threats and strategies for protection. This information was intended for use by ERCA staff and partners in New York State agencies and non-profits to identify and protect significant landscapes visible to canal visitors and users. The project scope, as finalized in 2021 by the NPS Olmsted Center and ESF with ERCA input, focused on inventory and evaluation, and did not undertake research to identify threats or explore conservation tools in detail. Only one piloted method (Visual Resource Inventory) includes an assessment of threats. An overview of potential landscape conservation tools was included in the final project recommendations.

PILOT LANDSCAPE INVENTORY METHODS AND FINDINGS

This pilot study applied three historic and visual resource inventory methods developed by the National Park Service to the Barge Canal National Historic Landmark district and its setting.

The study applied each of the three methods to two different types of Barge Canal construction: a land-cut section in Western New York, from Brockport to Hulberton in Monroe and Orleans counties, and a canalized river section in the Mohawk Valley, from St. Johnsville to Sprakers in Montgomery County. The ESF project team inventoried each pilot area through office and field work undertaken in summer 2022, using methods differentiated by level of detail, evaluation criteria, and geographic focus.

CULTURAL LANDSCAPE INVENTORY (CLI)

The CLI method, developed by the National Park Service to inventory and evaluate cultural landscapes within the National Park System, describes characteristics of a landscape (such as topography, buildings and structures, vegetation, and views), and inventories landscape features (manageable resources) associated with each characteristic (such as a hedge under vegetation). Each landscape feature is evaluated to determine whether it contributes to the landscape's historic significance based on National Register of Historic Places/ National Historic Landmark criteria. Changes in the landscape's historic character are evaluated through comparison of existing and historic conditions. The CLI does not include metrics to address the threat to landscape characteristics or features, although ongoing threats, such as loss of farmland over time, can be identified through the evaluation process.

For this pilot project, the CLI was used to inventory the landscape of the Barge Canal National Historic Landmark (NHL) district, which is owned and managed by New York State. The evaluation was based on historic landscape conditions within the NHL period of significance (1905-1963) using NHL data, historic photographs and maps, and other readily available materials. This method was selected for the NHL district (canal proper) because the CLI was designed as a tool for agencies that manage landscapes (in this case, the New York State Canal Corporation), with a high level of detail necessary for decision-making.

Findings

The Cultural Landscape Inventory (CLI) method is well adapted to state management of landscapes within the Barge Canal National Historic Landmark (NHL) district, including both built and non-built features. Undertaking a CLI throughout the 441-mile canal corridor (does not include Cayuga or Seneca lakes)

would fill in gaps in the NHL documentation that is focused on built structures, but would be a major undertaking and may not be a priority for the New York State Canal Corporation. However, a system-wide CLI could be streamlined to identify and evaluate types of landscape features, and limited CLIs could be done for specific developed areas, such as lock complexes and terminals, to inform the effect of projects within the NHL district. A CLI would document the overall characteristics of the Barge's Canal's broader setting, but is not designed to inventory or evaluate properties beyond the NHL boundary.

HISTORIC RESOURCE SURVEY (HRS)

The HRS method was developed by the National Park Service to survey communities for historic properties that may be eligible for listing in the National Register of Historic Places. An HRS can be done at a reconnaissance (windshield) level or at an intensive level based on inventory project drivers. Like the CLI, a HRS does not typically identify threats to historic properties posed by potential development, although adverse changes in historic integrity since the period of significance are identified through the evaluation process.

For this project, the HRS method was used to inventory and evaluate the landscape setting of the Barge Canal beyond the limits of state canal property (outside the NHL district). The HRS method was modified to identify adjacent landscape types and identify their individual occurrences instead of individual properties due to the scale and complexity of the canal's setting. Each occurrence was evaluated according to the NHL period of significance to determine whether it contributes to the historic setting of the Barge Canal based on state historic resource data, historic photographs, maps, and other readily available documentation. The modified HRS method was selected because the CLI method is too fine-grained and is not well adapted to the complexity of ownership, management, and landscape types in a community or regional setting.

Findings

The modified HRS method shows promise for understanding the broader setting of the Barge Canal adjacent to and outside of the specific NHL district. A reconnaissance-level HRS completed for the entire 450-mile-long canal corridor could identify key areas and resources, and it could build off the state's existing natural and cultural resource data. The HRS could be undertaken through the Erie Canalway National Heritage Corridor, or by state agencies involved in revitalization and resource protection along the Barge Canal. An intensive-level HRS could be undertaken for specific areas depending on the need for such survey information, such when a large development is proposed adjacent to or within view of the Barge Canal.

VISUAL RESOURCE INVENTORY (VRI)

The National Park Service's VRI method is a systematic process for identifying, documenting, and evaluating views within and beyond property boundaries to help manage and protect scenic resources. It is the only one of the three piloted methods that addresses threats as part of inventory and evaluation. The NPS VRI method is based on scenic quality and view importance criteria from a visitor's perspective that are not typically captured in a CLI or HRS. Unlike the CLI and HRS methods, the VRI does not base its evaluation on historic qualities, although those can be factored in.

For the Barge Canal, the NPS VRI method was used to evaluate views looking along and out from the NHL district using viewpoints selected based on visitor use or access (unlike NPS parks, the Barge Canal generally does not have scenic overlooks or other defined viewpoints). For this project, the VRI was adapted to assess views of the Barge Canal in the foreground (state canal lands), and views across the setting (adjacent lands) that form the middle ground and distance.

Findings

The NPS VRI was not effective in the two pilot areas that lacked clearly established public viewpoints. The VRI is labor intensive and is not a good tool for developing a base-line inventory of views and viewsheds throughout a large region such as the Barge Canal system. The CLI and HRS methods could be adapted to collect this data, since most scenery along the Barge Canal has both scenic and historic value. The VRI may be useful as a tool in evaluating the effect of proposed developments on the scenic qualities of the Barge Canal and its setting, as a complement to evaluating effects on historic resources.

OVERALL FINDINGS

Through the CLI, HRS, and VRI methods, this pilot study identified the following historic and scenic characteristics of the Barge Canal:

- A continuously navigable and functional waterway.
- Canal nodes at locks and terminals.
- Standardized utilitarian design of built canal features (as inventoried in the NHL documentation).
- Well-defined hamlets and villages separated by natural areas and farmland.
- Canal-side industrial and commercial transportation infrastructure, with many remnants of former canal-related uses.
- Truss bridges and movable dams that provide focal points up and down the canal, with bridges providing points of observation.
- Woodlands that enclose the canal, framing views up and down the canal.
- Farmland that allows for expansive outward views.

- Scenic views of hills and ridges (Mohawk Valley).

Potential tools and strategies for conservation of significant canal landscapes include:

- Strategic conservation plan.
- Legal land protection measures (easements and covenants).
- Land trust acquisition.
- Public education and advocacy.
- State and federal historic preservation and conservation laws related to review of development proposals.
- State preservation and conservation funding and technical assistance.

RECOMMENDATIONS FOR FUTURE INVENTORY AND CONSERVATION PLANNING

Recommendations for future planning to inventory landscapes associated with the New York State Barge Canal National Historic Landmark District and address tools for their conservation include the following:

- Focus on the Historic Resource Study (HRS) method with modifications to identify urban, rural, and natural landscapes adjacent to or visible from the Barge Canal that are significant to its historic setting.
- Coordinate HSRs with canal community inventory and National Register district nomination work being conducted by the New York State Historic Preservation Office (SHPO).
- Reserve detailed Cultural Landscape Inventory (CLI) and labor-intensive Visual Resource Inventory (VRI) methods for evaluating specific development proposals.
- Emphasize views from NHL district looking out for land-cut sections in western New York.
- Identify Known Observation Points (KOPs) during the course of HSR fieldwork.
- Identify views looking into and across the canal from highways and known observation points in the Mohawk Valley.
- Address the need for additional inventory criteria to address canalized rivers in the marshy central part of the state where there are few parallel roads and few land-based vantage points.
- Develop a Barge Canal landscapes conservation plan that identifies tools, resources, and criteria for protection, for use by state and local governments, regional planning organizations, and private property owners.

INTRODUCTION, CONCLUSIONS, AND RECOMMENDATIONS

The New York State Barge Canal, a state-owned system of canals, canalized rivers, and lakes built between 1905 and 1918 as an improvement of the state's tow-path era canal system initially completed in 1825, maintains a 450-mile-long navigation channel from the Hudson River to the Great Lakes, Lake Champlain, and the Finger Lakes (figure 0.1). The Barge Canal anchors the Erie Canalway National Heritage Corridor that Congress established in 2000 to affirm a national interest in the preservation and interpretation of its important historic, cultural, recreational educational, scenic, and natural resources.[1]

This introduction provides an overview of the project purpose, scope, and inventory methods, and ends with conclusions and recommendations for planning future landscape inventories and protection measures. The first chapter details the three piloted inventory methods and an overview of findings from each. The second and third chapters contain collected data from the two pilot areas. The appendix of the report contains sample inventory forms and other supporting materials.

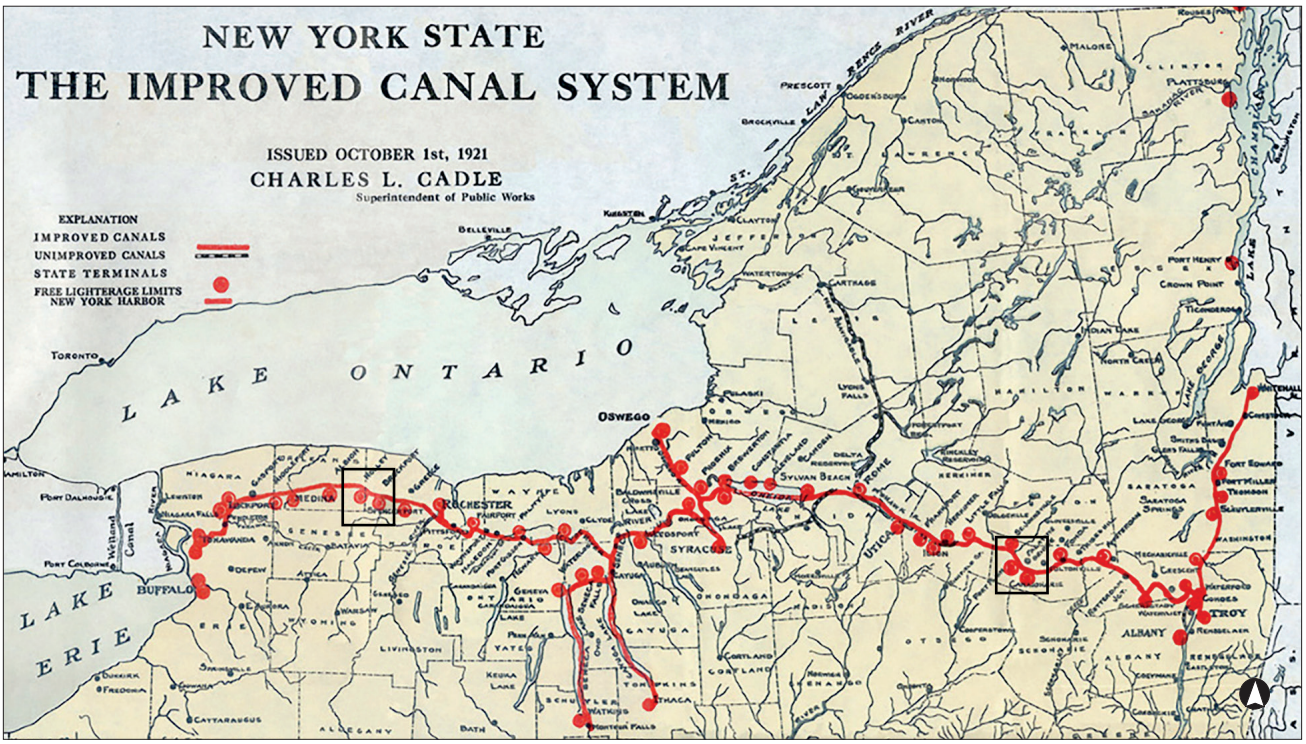


Figure 0.1. Historic map of the New York State Barge Canal system. The two small black boxes indicate pilot landscape inventory areas for this project. "Improved Canals" indicates the Barge Canal system, and "Unimproved Canals" are nineteenth-century tow-path canals. (Detail, Charles L. Cadle, *The Canal System of New York State*, revised edition, 1921, annotated by SUNY ESF)

ABOUT THE BARGE CANAL [2]

The New York State Barge Canal is a system of four canals—the Erie, Champlain, Oswego, and Cayuga-Seneca canals—that have been in continuous operation since the 1820s. The State of New York built the versions in use today between 1905 and 1918. About a third of the navigation channel on today's system is a constructed landform known as land-cut—similar, albeit wider and deeper, than its nineteenth-century predecessors. The other two-thirds are so-called canalized rivers and lakes. Together, these canals run through a third of New York's counties and more than two-hundred cities, towns, and villages.

New York State owns the Barge Canal and the New York State Canal Corporation, as a subsidiary of the New York Power Authority, manages it. The Canal Corporation, New York State Department of Transportation (DOT) and Department of Environmental Conservation (DEC) manage additional state lands bordering the National Historic Landmark district. Beyond that, most lands adjacent to the Barge Canal and in its viewshed are privately or municipally owned. At 450 miles in length, it may be the longest canal system in the country, but it is comparatively slender. In land-cut sections, it spans from the outer embankments on each side, generally about 120 feet in width. In river sections, the canal extends to the shoreline at normal navigation water levels. The width of the district swells at locks and canal maintenance shops to encompass associated buildings and structures. It also expands at bridge crossings to incorporate abutments and approaches.

PROJECT PURPOSE

The overall purpose of this project is to test methods to identify, document, and evaluate the landscapes that contribute to the historic and scenic character of the New York State Barge Canal. There is currently inventory data on historic properties and natural resources within and adjacent to the Barge Canal, but they have not been synthesized to describe the canal landscape, and there remain many gaps. As a pilot effort, the findings and recommendations of this project are intended to inform the scope and methods of future planning to comprehensively inventory and evaluate Barge Canal landscapes as a foundation for developing protection measures.[3]

The New York State Barge Canal is characterized by landscapes that define its sense of place—landscapes that tell us: this is canal country.[4] These landscapes, including the canal itself, adjacent lands shaped by the canal, and natural setting along rivers, ridges, and plateaus, have developed over time since the completion of the original Erie Canal in 1825. These include forests, streams, and ridges; historic canal-side hamlets, villages, and cities; farm fields that allow for views across the surrounding countryside; and vistas along the canal's level course



Figure 0.2. A land-cut section of the Erie Canal (Barge Canal) near a crossing of a historic truss bridge in Orleans County in western New York looking east, June 2022. The farm field beyond the bridge at right allows for views across the surrounding rural landscape. (SUNY ESF)

punctuated by truss and lift bridges (fig. 0.2). To date, the Erie Canalway National Heritage Corridor has not had the language to describe what makes these landscapes significant to the canal's history and distinctive sense of place.

The New York State Barge Canal was listed as a historic district in the National Register of Historic Places in 2009. To further document its history and exceptional national significance in the areas of engineering, transportation, maritime history, and commerce, the Barge Canal system was elevated to a National Historic Landmark (NHL) in 2016, within a period of significance beginning with the start of construction in 1905 to the last major navigational improvements in 1963. The NHL provides a thorough inventory of Barge Canal buildings and structures within the boundaries of the 23,486-acre NHL district that follows the outer limits of the canal embankments and associated canal facilities. All land within the district is state owned, with rare exceptions (railroad bridges, pipeline crossings, and a few privately owned islands in river sections).[5]

While the NHL provides detailed documentation on the history and significance of the Barge Canal's built structures, the overall landscape comprised of the canal and its surrounding setting and viewsheds has not been systematically inventoried and evaluated. As a mostly narrow corridor, the landscape of the Barge Canal is shaped in large part by the adjacent urban, rural, and natural landscapes through which it passes (fig. 0.3).



Figure 0.3. The Barge Canal in Orleans County west of Brockport looking west showing adjacent landscapes that include woodlands, agricultural fields, and suburban residential properties, June 2022. (Drone photograph, Todd Lippa, New York State Canal Corporation)

The need for inventorying historic and scenic resources in the landscapes of the Barge Canal was identified by the Erie Canalway National Heritage Corridor Commission, created in 2000 by the Erie Canalway National Heritage Corridor Act.[6] This need is detailed in the Commission's *Preservation and Management Plan* (2006):

> The Corridor's historic and distinctive sense of place will be widely recognized and consistently protected.
> - Build public support for preservation and enhancement of critical historic and cultural resources.
> - Protect and enhance the authenticity and integrity of the Corridor's historic resources and canals, and the continued utility of the 20th century [barge] canal system.

- Encourage investment in historic town centers, sustainable new development practices, and retention of farming and open space.
- Help Corridor communities plan for protection of historic and cultural resources and future development. [7]

The plan specifically calls for undertaking cultural landscape inventories as a basis for preservation planning, with "the long-term goal of completing an inventory of the entirety of the Corridor's historic and cultural resources," including the Barge Canal.[8] A comprehensive inventory and evaluation of Barge Canal cultural landscapes would allow the Corridor to provide baseline data to inform decision-making about land-use and development adjacent to or visible from the Barge Canal.

PROJECT SCOPE

Erie Canalway National Heritage Corridor originally scoped this project in 2018 as a pilot effort at evaluating methods of inventory and evaluation for Barge Canal landscapes, and to identify threats and protection tools and strategies. The project scope as finalized by ESF, the NPS Olmsted Center for Landscape Preservation, and the Erie Canalway National Heritage Corridor in 2021 focused on inventory and evaluation and did not call for identifying threats or analyzing tools and strategies for protection of significant canal landscapes. Suggested protection tools and programs are provided in the recommendations section at the end of this introduction.[9]

The inventory methods for this pilot project follow a cultural landscape approach that addresses the entire outdoor environment of the Barge Canal with its large geographic area, tangible cultural and natural resources, and intangible uses and associations. The National Park Service (NPS) defines a cultural landscape as "an area of land, including both cultural and natural resources, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values." Cultural landscapes are characterized by tangible resources such as natural systems, topography, vegetation, buildings and structures (exteriors), constructed water features, small-scale features, and archeological sites, and intangible aspects such as outdoor spaces, land use, cultural traditions, and views. Cultural landscapes often transcend legal boundaries and physical borders.[10]

INVENTORY METHODS

Because Barge Canal landscapes include the state-owned NHL district and a variety of lands adjacent to or visible from the canal that may be important for historic and/or aesthetic values, this project applied inventory methods to address both historic and scenic landscape resources.

TABLE 0.1. PILOT CULTURAL LANDSCAPE INVENTORY METHODS – NYS BARGE CANAL

METHOD	FOCUS AREA	FRAMEWORK	INVENTORY UNIT	EVALUATION
Cultural Landscape Inventory (CLI)	Barge Canal (NHL District)	Landscape Characteristic	Landscape Feature	Contributing/Non-contributing to *historic character* of Barge Canal landscape
Historic Resource Survey (HRS)	Adjacent Lands (NHL district setting)	Adjacent Landscape Type	Adjacent Landscape Occurrence	Contributing/Non-contributing to *historic setting* of the Barge Canal
Visual Resource Inventory (VRI)	Barge Canal and Adjacent Lands	Scenic Quality, View Importance	Viewpoint	Scenic Inventory Value (numerical rating)

The project tested three methods to inventory New York State Barge Canal landscapes. The ESF team selected these methods to address the varied use, ownership, management, resource types, and level of detail found throughout the system (table 0.1, summary of methods). Each method was adapted to the unique conditions of the Barge Canal.

Cultural Landscape Inventory (CLI)

The CLI, developed by the National Park Service as a resource management tool for cultural landscapes in units of the National Park System, was selected to inventory state-owned and managed landscapes that comprise the Barge Canal National Historic Landmark district, and to describe overall landscape characteristics that include lands adjacent to the historic district boundary.[11] The CLI was selected as an inventory method best suited for the state to make management decisions on its historic Barge Canal lands, and to fill in missing landscape inventory data in the National Historic Landmark documentation.

Historic Resource Survey (HRS)

The HRS, based on guidelines for local surveys published by the National Park Service - National Register of Historic Places, was selected to provide an inventory of the complex array of public and private lands adjacent to, or visible from, the Barge Canal and canal-side trails.[12] As adapted for this project to address cultural landscapes (versus individual properties), the historic resource survey identifies landscape types and representative occurrences. The project team selected this inventory method to provide broad documentation on Barge Canal landscapes and base-line inventory data for use by municipalities and land-management agencies to inform decisions about development that could affect the historic character of the Barge Canal.

Visual Resource Inventory (VRI)

This inventory method was developed by the National Park Service to identify and evaluate scenic views in units of the National Park System from designated viewpoints.[13] The method includes criteria for identifying viewpoints, evaluating scenic quality and view importance, and establishing an overall scenic inventory

value. The project adapted this method to identify and evaluate views and viewsheds from the canal and canal-side trail based on their aesthetic attributes. The ESF project team adapted the VRI to address interior views of the canal and outward views across adjacent lands.

PILOT INVENTORY AREAS

The project team applied each of the three inventory methods to two pilot inventory areas that reflect the two overall types of Barge Canal cultural landscapes identified in the Erie Canalway National Heritage Corridor *Preservation and Management Plan:* Barge Canal Land Cuts (land-cut canal) and Barge Canal Riverways (canalized river) (fig. 0.4).[14] The pilot areas were selected with the input of ERCA staff along two stretches of the Erie Canal (Erie Division of the Barge Canal) based on capturing representative Barge Canal landscape characteristics, adjacent landscape types, and scenic views.

Land-Cut Canal

The land-cut pilot area extends along a stretch of the so-called 65-Mile Level in Western New York in western Monroe and eastern Orleans counties (figs. 0.5, 0.6). The inventoried area extends from Sweden-Walker Road (NY 260) in the Town of Sweden near Brockport west 11.1 miles past the Village of Holley to Fancher Road (NY 387) west of the unincorporated hamlet of Hulberton (Town of Murray). The Erie Canalway Trail is on the north embankment and former nineteenth-century tow-path alignment throughout the pilot area. [15]

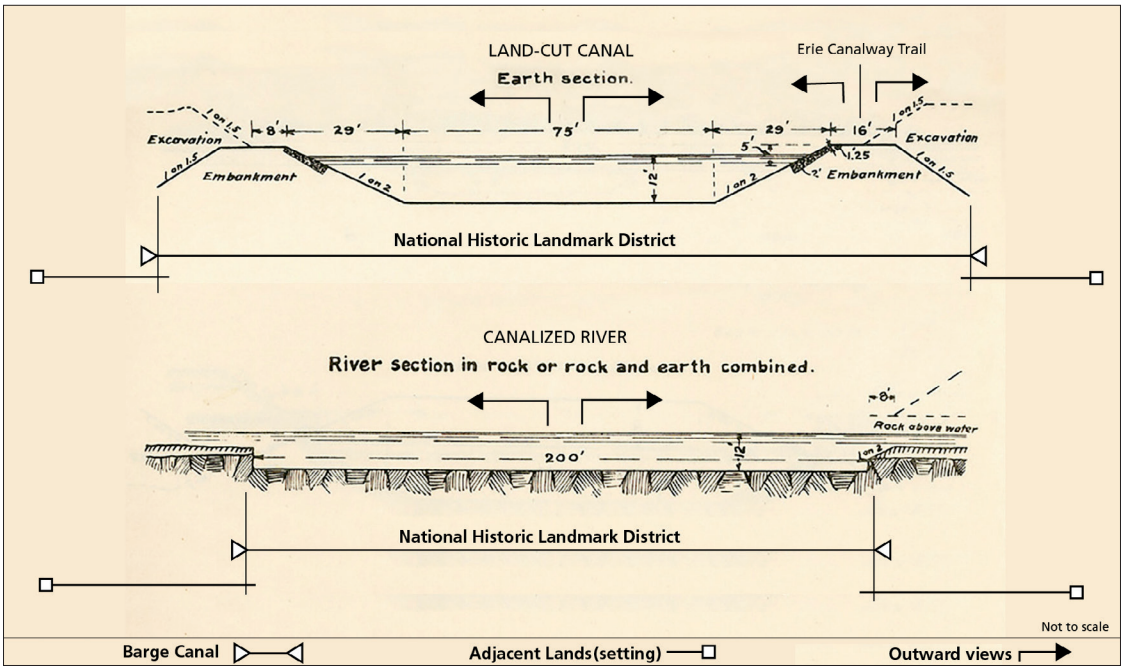


Figure 0.4. Cross-sections of the Barge Canal land-cut and canalized river construction types showing typical canal corridor (NHL district), adjacent lands, and views. (From Whitford, History of the Canal System of the State of New York, 1906, annotated by SUNY ESF)

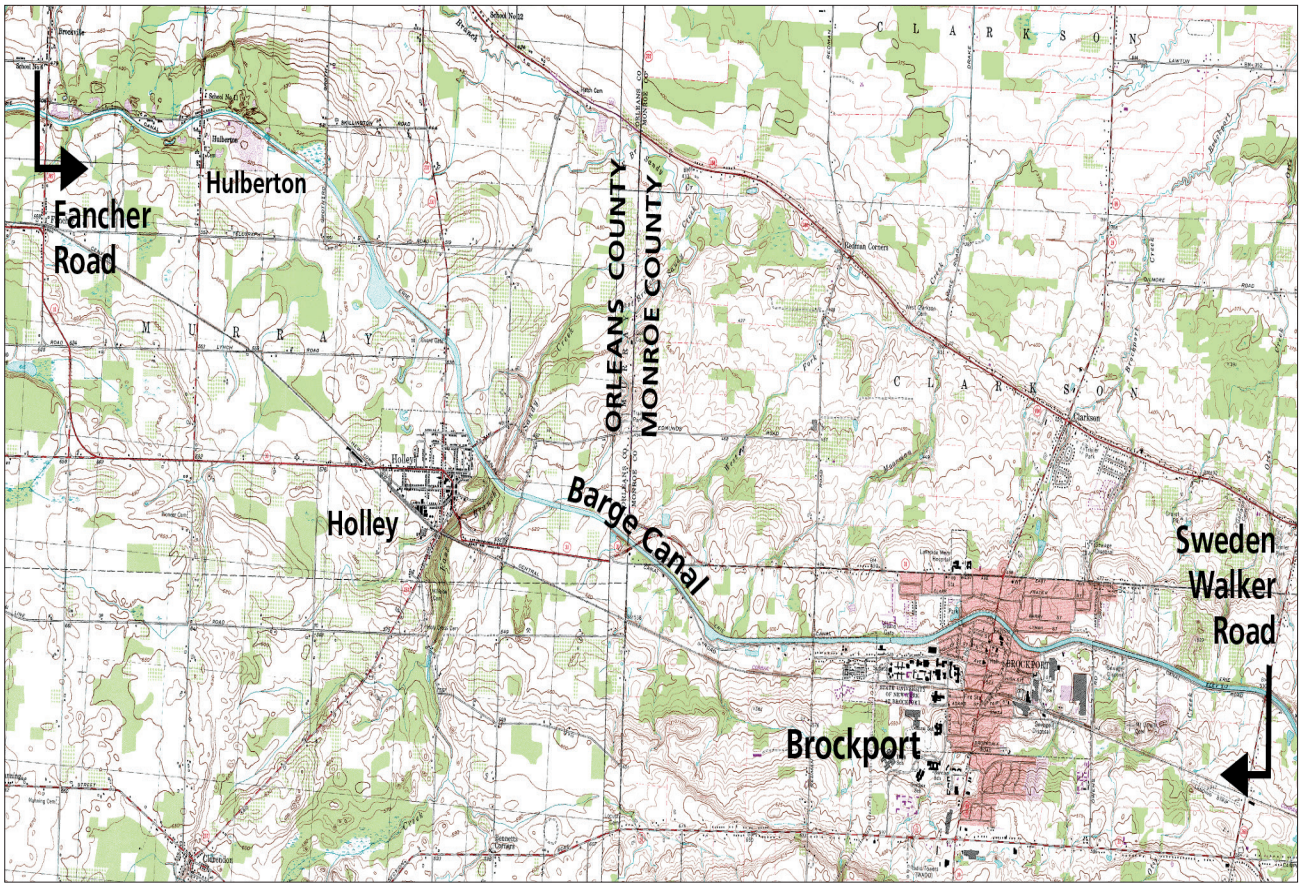


Figure 0.5. Character of an urban stretch of the land-cut canal pilot area in western New York looking east from the Main Street lift bridge control tower in the Village of Brockport, June 2022. This section of the canal passes through the Main Street Historic District listed in the National Register of Historic Places. At right is the concrete bulkhead of the former Brockport Barge Canal terminal (SUNY ESF)



Figure 0.6. Map of land-cut pilot area from Fancher Road in Orleans County east to Sweden Walker Road in Monroe County. (Cornell University Mann Library USGS topographic map mosaic, ca. 2000, annotated by SUNY ESF)

Canalized River

The canalized river pilot area extends along a stretch of the Mohawk River in Montgomery County (figs. 0.7, 0.8). The inventoried area extended from the former Barge Canal terminal in the Village of St. Johnsville east sixteen miles past Fort Plain and Canajoharie to Lock E-13 (Mohawk Valley Welcome Center). Because the Erie Canalway Trail in this pilot area is not adjacent to the canal or visible from it except for a small section near Lock E-15 (the trail is south of the Mohawk River on roads and a former railroad grade), it was not inventoried.[16]

RESEARCH

Given the pilot scope of this project to define overall characteristics and develop inventory methods, rather than produce comprehensive data, research into historic conditions was undertaken at a limited level of investigation, while research into existing conditions, including field work, was undertaken at a thorough level of investigation, as defined by the National Park Service *Cultural Resource Management Guideline*.[17]

The three components of this inventory project synthesized available inventory data and collected new existing conditions data. For the Barge Canal NHL district, the team relied on inventory data maintained by the New York State Canal Corporation. Its GIS-based facilities inventory—CIMS, *Canal Infrastructure Management System*—includes buildings and structures documented in the National Historic Landmark inventory, as well as many other features related to operation of the canal and its public recreational use. The Canal Corporation shared its recently completed GIS inventory of all facilities along portions of the Erie Canalway Trail, which also includes data on adjacent state canal lands outside the NHL district boundary. Additional information on existing conditions and operation of the Barge Canal came from the team's communication with New York State Canal Corporation staff. Data on historic, natural, agricultural, and other resources in adjacent lands were taken from the New York State Cultural Resources Information System (CRIS), New York State GIS clearinghouse, local municipal databases, and other publicly accessible records.

The project collected existing conditions data through analysis of maps and aerial photographs and by field work. Most of the research and all fieldwork for this project was undertaken in summer 2022 by a team of five landscape architecture students at the SUNY College of Environmental Science and Forestry.

Historical research included one visit to the archives of the Erie Canal Museum in Syracuse to review historic photographs and maps; review of digitized historic Barge Canal contract documents from the New York State Archives provided by NPS Historian Duncan Hay; and research into online resources. Aerial photographs from the late 1950s available through USGS Earth Explorer provided

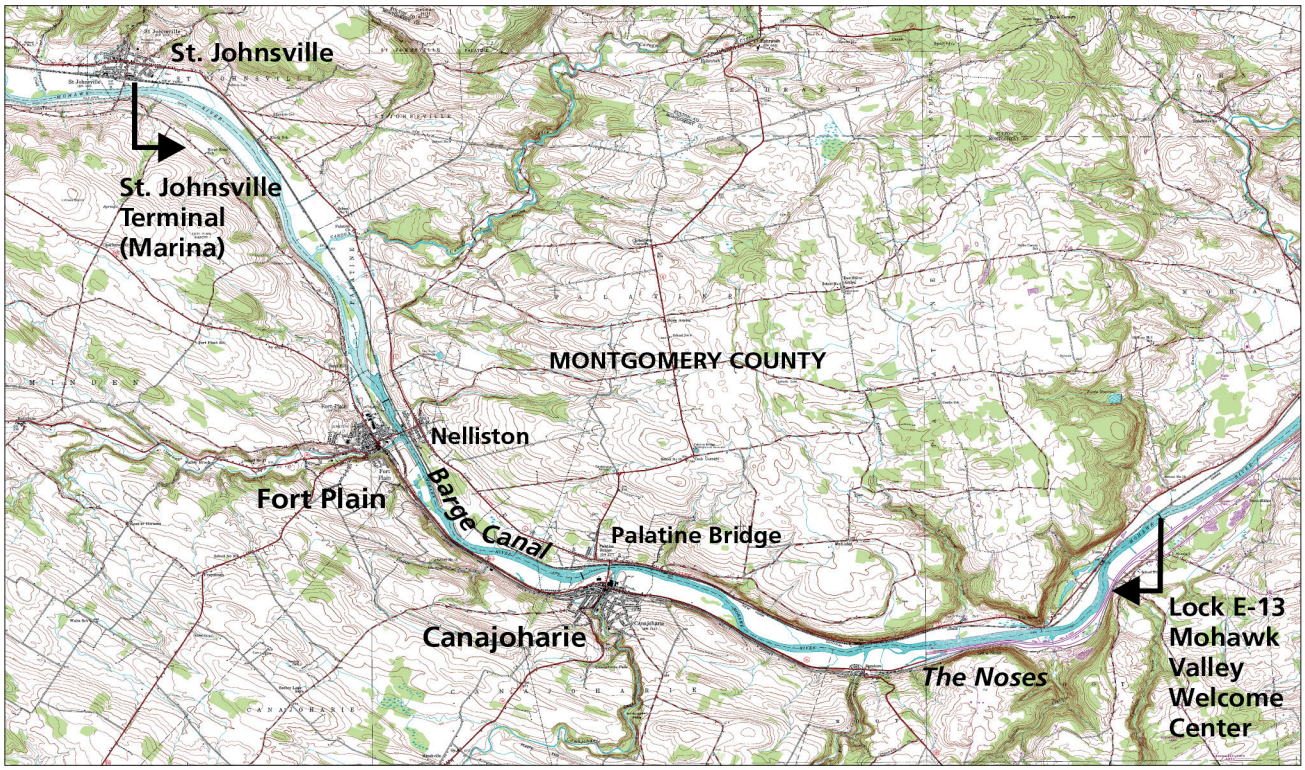


Figure 0.7. A stretch of the canalized Mohawk River pilot area looking east toward the Little Nose in Montgomery County showing broad extent of the canal, wooded banks, and scenic view of natural features, July 2022. (SUNY ESF)



Figure 0.8. Map of the canalized river pilot area in the Mohawk Valley, from the St. Johnsville terminal (marina) in the west to Lock E-13 (Mohawk Valley Welcome Center) in the east. (Cornell University Mann Library USGS topographic map mosaic, ca. 2000, annotated by SUNY ESF)

the most important source on changes in adjacent lands since the end of the NHL period of significance (1905–1963).

FIELDWORK

Fieldwork completed in summer 2022 was undertaken by the ESF project team consisting of Allison Perry (Graduate Assistant), Siela Zembsch, Joe Perez, and Jack Anson (undergraduate landscape architecture students), and John Auwaerter (Principal Investigator). The team spent between three and four days at each pilot area ground-truthing existing data and creating new data. The original plan for the field work was to capture inventory data in ArcPro GIS using Samsung tablets, but issues with connectivity in the field and wider problems with GIS mapping led the team to record field data using a mix of digital and paper tools.

Land-Cut Canal Field Work

The team broke into two groups to apply the CLI and HRS methods, beginning at either end of the eleven-mile-long inventory area. This took approximately 2.5 days using bikes on the canal trail. The team spent one day as a group applying the inventory methods from a Canal Corporation boat to note differences in landscape character and to inventory representative views from the water. The boat trip, which went from the dock at the Main Street Bridge in Brockport to the Canal Corporation Albion shops (beyond revised pilot area) and back, was accompanied by NYS Canal Corporation staff (Matthew Lengel and Todd Lippa) who provided valuable insights into canal history, canal facilities, and the Canal Corporation's inventory data.[18] Application of the VRI method from the trail and the boat was undertaken as a group as required by the VRI. Representative viewpoints were inventoried from the boat, and the following day from the trail.

Canalized River Field Work

Because the Erie Canalway Trail is outside this pilot area, the team organized the field work differently than at the land-cut canal, working together rather than splitting into two groups, and doing all three inventory components concurrently. The team first applied the CLI, HRS, and VRI methods at nodes of canal development accessible by land (terminals and locks) by car, which took approximately 1.5 days. The team spent one day applying the inventory methods from a boat, which was the only way to access the entire length of the pilot area. NYS Canal Corporation staff Matthew Lengel and David Lamphere accompanied the ESF team on the boat ride, which went from the DEC dock in Nelliston to Lock E-13 and back.

MAPPING

The ESF project team used ArcPro GIS and ArcGIS Online to assemble existing data, collect new field data, and map viewshed extents based on LiDAR bare

earth elevations. Due to technical difficulties, limits of expertise, and constraints of the project scope and funding, the team did not complete processing of new GIS data.[19] Representative sample maps that locate CLI features and adjacent landscape types and occurrences are in Appendix E (drawings 1 and 2). Although these maps do not show actual GIS data output, they illustrate how future inventory work could be mapped and made available to the Canal Corporation, other state agencies, municipalities, and the public through the New York State GIS Clearinghouse and ArcGIS Online.

CONCLUSIONS

The pilot inventory work undertaken through this project provided data to help document landscape characteristics and features, types of historic and scenic landscapes, and scenic views that define the New York State Barge Canal's sense of place. The project provided documentation on the types of landscapes both within the canal proper and across its larger setting, building on features and types already identified in the *Erie Canalway Preservation and Management Plan,* and in the National Historic Landmark documentation. The project developed this data by testing three methods developed by the National Park Service to inventory cultural landscapes, historic resources, and scenic resources on public and private lands.

PILOT AREAS

The two pilot areas selected for this project covered many of the landscape characteristics found throughout the Barge Canal system, but not all. In particular, the land-cut canal pilot area had limited scenic viewsheds due to growth of woods and lack of agriculture in adjacent areas. In other parts of the canal in Western New York, views looking north from the canal-side trail across fields or the tops of orchards are characteristic and allow for a sense of the expansiveness of the region and nearness of Lake Ontario. Limits of time and personnel, along with distance from the team's home in Syracuse, did not allow for inventorying larger pilot areas as initially planned. [20]

INVENTORY METHODS

The following are overall findings for each of the three inventory methods based on the pilots completed for the two study areas.

Cultural Landscape Inventory (CLI)

The NPS Cultural Landscape Inventory method provided a comprehensive inventory and evaluation of the Barge Canal landscape owned and managed by the New York State Canal Corporation and its broader setting. The CLI evaluated the landscape *characteristic*s of the Barge Canal, which are the broad aspects of the canal landscape defined by the NHL district (state canal property) and

adjacent wooded, agricultural, and urban lands, and how they have changed in a broad sense since the National Historic Landmark period of significance (1905–1963). The landscape *feature* inventory part of the CLI identified managed landscape resources within the state-owned canal lands, and identified which features contribute to the historic significance and character of the landscape. This inventory synthesized existing state-owned facility/resource data and filled in gaps, notably for non-built landscape features associated with natural systems, spatial organization, circulation, land use, and views and vistas.

While the framework of CLI landscape *characteristics* is an appropriate method to document the broad aspects of Barge Canal landscapes, the other parts of the CLI, in particular the *feature* inventory, are too fine grained to apply to the complexity of properties adjacent to the canal, most of which are not owned or managed by the state. This project demonstrated that while the CLI is a good method for describing overall landscape character, it is not an efficient method for capturing resource management data at a community or regional scale.

Historic Resource Survey (HRS)

This method, as adapted for this project to survey cultural landscape types and occurrences rather than individual historic properties, collected and synthesized data on the broader setting of the Barge Canal beyond the limits of the National Historic Landmark district. The HRS identified types of landscapes adjacent to the canal or visible from it and evaluated changes in overall landscape patterns and uses since the end of the NHL period of significance in 1963. The method also identified character-defining historic properties associated with, or visible from, the canal.

The HRS was an effective method for completing a preliminary identification of canal-adjacent areas and resources that contribute to the historic character of the Barge Canal. It built off existing inventory databases maintained by the New York State Historic Preservation Office's Cultural Resource Inventory System (CRIS), natural resource data maintained by the New York State Department of Environmental Conservation, and local government zoning and planning, among other sources. The HRS method as adjusted to the Barge Canal was not effective at documenting overall landscape characteristics. Because this project was implemented a reconnaissance (windshield) level due to the limits of time and research, it may not have been effective at comprehensively identifying occurrences of landscape types that contribute to the historic character of the Barge Canal, especially where concealed by woods.

Visual Resource Inventory (VRI)

The VRI was effective at identifying and evaluating views from accessible points on the Barge Canal, the canal-side trail, and bridge crossings based on scenic quality and view importance. The team used postcards and social media posts

to identify known and popularized viewpoints, since there are no maintained scenic overlooks or other designed viewpoints within the two pilot areas (these same views were also inventoried through the CLI method). Historic values were incorporated into scenic quality ratings, but this rating system posed potential inconsistencies with views identified and evaluated for their historic value in the CLI. While the VRI does take historic values into account in evaluating scenic quality, historic values are not a core value in the evaluation process.

The VRI was labor intensive and was not effective in capturing overall scenic character in the two pilot areas given that there are no formally defined public viewpoints. The VRI also did not allow for defining overall character or developing a base-line inventory of views and viewsheds, since the method relies on select viewpoints.

Overall, the VRI was duplicative of the cultural landscape inventory (Views and Vistas characteristic). However, the scenic quality ratings in the VRI helped the team better assess adjacent lands as foreground, midground, and background. In addition, the VRI provided additional useful metrics to describe historic views, including color, forms, lines, and texture, which are not described in the CLI Professional Procedures Guide.

INVENTORY DATA

The inventory team found the following key historic characteristics of Barge Canal landscapes, which vary depending on the overall type of canal construction in the two pilot areas in western New York (land-cut canal) and the Mohawk Valley (canalized river). These findings do not reflect all characteristics, since Barge Canal landscapes vary depending on their geographic region, and not all contribute to the historic or scenic character of the canal.

Landscape Character Common to Both Canal Types

- Continuous, navigable waterway throughout the system
- Predominance of wooded areas bordering the canal; long stretches of no openings or apparent built development.
- Limited views across the surrounding countryside, except for hills and ridges, due to woods bordering the canal. No defined observation points on the canal or along the canalside trail.
- Truss bridges and movable dams that provide focal points as they cross the canal. Girder bridges of recent origin provide limited visual interest and most replaced historic truss bridges.
- Nodes of maintained landscape at lock complexes and terminals, with historic plantings (Norway spruce, northern white cedar, mown turf).
- Limited visible suburban sprawl along the canal bordering small, established urban areas.

- Standardized utilitarian design and use of concrete and painted steel in canal structures and small-scale features that reinforce a distinct character to the canal proper, as described in the National Historic Landmark documentation.
- Terminals that connect the canal with adjacent communities and industry and are now used for recreation; most have been redesigned or received additions that do not reflect the historic utilitarian character of the Barge Canal.

Landscape Character Distinctive to Land-cut Canal

- Clear geometry to canal banks and alignment.
- Narrow corridor with slender views down the canal; limited outward views, except at farm fields and villages, due to woods and level character of the physiographic region, which can create a monotonous character.
- Built earthen embankments, now partly covered in second-growth woods.
- Wetlands adjacent to the canal, some resulting from leakage through canal embankments.
- Canalside trail, following Barge Canal service road and nineteenth-century tow path alignment.
- Lift bridges that together with truss bridges define visual sections of the canal and provide focal points.
- Canal-adjacent historic urban development (hamlets, villages).
- Roads that generally cross, rather than parallel, the canal, except in urban areas.
- Long-standing use of canal water for irrigating adjacent farms.
- Suburban sprawl replacing farmland and wooded areas near historic urban areas (Brockport).
- Relatively recent recreational development for biking, walking, personal watercraft, and nature observation.

Landscape Character Distinctive to Canalized River

- Overall natural character.
- Wide corridor and broad views down the canal; outward, expansive views in areas framed by valley walls and ridges.
- Navigation channel in river marked by buoys.
- Movable dams with truss superstructures adjacent to locks that provide focal points and a dynamic character to the water.
- Historic urban development (hamlets, villages) along nineteenth-century towpath alignments that is near to but not adjacent to the Barge Canal (Mohawk River).
- Private dock access along riverbanks.
- Canal trail remote from the Barge Canal (Mohawk River) with few connections.

- Transportation corridors (Thruway, railroads) parallel to the canal.
- Longer history of recreational boating than land-cut canal.

RECOMMENDATIONS

The three methods piloted for this study have promise for continuing landscape inventory and evaluation throughout the 450-mile-long corridor depending on the types of Barge Canal landscapes, land ownership, and how the data will be used. The following are considerations for planning future inventory work.

GENERAL RECOMMENDATIONS

The results of piloting these three inventory methods suggest that a key to identification and protection of the Barge Canal's distinctive sense of place is public education and accessibility of inventory data. All three inventory methods point to the need for the Canal Corporation, state agencies (notably the Department of Transportation), municipalities, and private landowners to understand the distinctive characteristics of the Barge Canal as a place and cultural landscape, rather than as a collection of individual built structures. The Canal Corporation's recent experience with public concern over its Earthen Embankment Integrity Program, which addresses removal of trees from embankments to stabilize canal structures while also reestablishing lost historic character to the landscape, is evidence of the importance of educating canal communities and the public at large.[21]

Relationship Between Historic and Scenic Landscapes

The Barge Canal's scenic landscapes are historic landscapes (with a few possible exceptions) and should be addressed as part of the same landscape inventory and evaluation process. For example, the view of the Noses from the canalized Mohawk River is a highly rated scenic view as captured through the Visual Resource Inventory, but it is also a significant historic view as captured through the Cultural Landscape Inventory. In contrast, views of the canal with power lines along its banks would not rate high as a scenic view but may be significant as part of the historic utilitarian character of the canal. These conflicts could be avoided by addressing all views in the cultural landscape inventory, rather than using two different landscape inventory methods. The Cultural Landscape Inventory and Historic Resource Survey methods could be enhanced through inclusion of identification and evaluation criteria from the Visual Resource Inventory method.

Use of Inventory Data

A limitation of the current pilot project was the team's lack of knowledge about the use of the inventory data. Future efforts need to clarify the primary users of the inventories to determine what kinds of data are needed, the level of detail, and

criteria for evaluation (historic, scenic, natural). Examples of data users include government agencies undertaking state and federal historic preservation project reviews (Sections 106 and 14.09), public input through State Environmental Quality Review Act (SEQRA) review of development projects, and municipal governments in developing land-use plans and site design for properties adjacent to or visible from the Barge Canal, including former canal terminals.

Mapping

The landscape inventory methods developed and tested for this project for lands outside the state-owned canal need to be planned from the ground up as a Geographic Information System (GIS) project, if the information is to be readily available to government agencies, municipal governments, and private owners of Barge Canal landscapes. The way in which landscape inventory data is organized, collected, and mapped needs to be refined through application in GIS. A GIS expert needs to be part of the inventory team (this was a weakness in the ESF team due to changes in project personnel as the summer field work was about to start).

Period of Significance

The Barge Canal's period of significance identified in the National Historic Landmark documentation is 1905–1963—the end date being the last major navigational improvement. Future inventory work should document and evaluate broad patterns and landscape characteristics that dominated throughout the period of significance, rather than evaluating existing conditions against only what existed by the end of the period in 1963. The limited scope of research for this pilot study, which was not focused on evaluation criteria, constrained the amount of documentation available to evaluate landscape changes during the period of significance.

Evaluating Significance and Integrity

Future efforts should take a cultural landscape approach to inventory and evaluation that looks holistically at the Barge Canal as a historic place and preserve historic (contributing) features, but also acknowledge a continuum of change in natural and cultural systems as part of its historic character. For example, growth and decline of woods along the canal was part of the landscape's historic natural systems, although such changes should be evaluated for their effect on other key landscape characteristics, such as views and spatial limits that have been lost due to growth of woods along canal banks. Recreational uses, although much more prevalent today, existed historically, although many features associated with current recreation uses have a different character. For example, municipal park

improvements, notably at canal terminals, have in places removed or concealed historic Barge Canal characteristics and features.

METHODS RECOMMENDATIONS

Cultural Landscape Inventory

Since the 1990s, the National Park Service has used the Cultural Landscape Inventory (CLI) to provide data for the agency to manage its historic cultural landscapes, in conjunction with other inventories for historic buildings, archeological sites, and other cultural resources. The CLI is therefore well adapted as an inventory method for the Barge Canal National Historic Landmark (NHL) district, including both built and non-built landscape features, since it is under state ownership and managed by one agency (New York Power Authority / Canal Corporation).

The Canal Corporation does not have plans to undertake a landscape inventory for the Barge Canal to supplement the built feature inventory in the National Historic Landmark documentation. According to staff of the Erie Canalway National Heritage Corridor, it is not realistic for the Canal Corporation to undertake a CLI for the entire 450-mile system given other canal priorities.[22]

While a standard CLI may not be feasible for the entire system, the following are recommendations for adapted CLIs that could still provide critical data while streamlining the effort.

- A CLI for the entire 450-mile-long system could be streamlined through limiting the inventory to *types* of historic features and *typical* locations, as a general reference. This type of CLI could also focus on describing landscape characteristics that define Barge Canal landscape types (land-cut, canalized river, and others) and creating graphics that readily convey that character.
- CLIs with detailed characteristic and feature inventories could be reserved for limited areas to inform the effect of projects within the NHL district, such as municipal park development and *Reimagining the Canals* proposals.
- Community engagement in developing the CLI can add a layer of complexity, but can help identify landscapes of local significance and build support for preservation.

Historic Resource Survey

Historic resource surveys are a standard method for identifying historic properties in community and regional settings for the purposes of historic preservation. As adapted for this project to identify landscape types and occurrences, the HRS method would provide base-line data of properties that contribute to the historic

character of the Barge Canal. The Erie Canalway National Heritage Corridor considers the HRS as the most appropriate landscape inventory method for lands outside the NHL district, with modification to fit the Barge Canal.[23]

Recommendations for planning future HRS work include the following:

- A historic resource survey could be sponsored by the Erie Canalway National Heritage Corridor, or through a consortium of state agencies involved in revitalization and resource protection along the Barge Canal. The Commission and state agencies are best positioned to disseminate inventory data to municipalities and private landowners.
- A HRS, like a CLI, should involve canalside communities to help identify areas of local significance and build support for preservation.
- The survey area should be defined, as it was for this project, by landscapes (properties) that are adjacent to and visible from the Barge Canal and the canalside trail, using a cultural landscape approach that looks holistically at the character of a place, including its natural and cultural resources. HRS surveys have traditionally focused on buildings and structures.
- An intensive-level HRS could be limited to landscapes and specific features that most directly define the historic character of the Barge Canal (foreground/midground). A less intensive reconnaissance-level (windshield) HRS could be undertaken for landscapes and features that are remote from the canal (distance) but are visible and form part of the canal's setting (viewsheds).
- A HRS could be designed to inventory landscapes within the National Historic Landmark (NHL) district that are not inventoried in the NHL documentation, if there is no CLI planned.
- Given the large expanse of the potential survey area along the 450-mile-long Barge Canal system, it may not be feasible to undertake a HRS that inventories all natural and cultural resources within the corridor. It could instead be designed as part of a network that builds on existing data sets (historic, archeological, and natural) related to the Barge Canal. For example, a canal landscapes survey could build on an intensive-level canal communities survey that is being proposed by the New York State Historic Preservation Office (SHPO). Barge Canal landscapes could also be a category added to data in the state GIS clearinghouse. [24]

Visual Resource Inventory

The NPS Visual Resource Inventory (VRI) is a sound method for identifying and evaluating specific viewpoints along the Barge Canal for their scenic value, but it is time consuming, does not contextualize historic values (there is no site history or evaluation of historic significance to the VRI), and is limited to defined viewpoints. The CLI or adapted HRS would be a better method for documenting

the historic character of Barge Canal views as part of the overall historic character of the landscape, given that the views are part of a National Historic Landmark.

The following are recommendations for future application of the VRI to the Barge Canal:

- VRIs should be reserved for evaluating specific development proposals, rather than establishing a baseline inventory of scenic views.[25]
- Completing part of the VRI—identifying viewpoints (known observation points) and defining their viewsheds—could help the Heritage Corridor Commission and other public agencies get ahead of potential development that could affect the historic and scenic character of the Barge Canal by defining areas of concern.[26] Several options for undertaking an inventory of viewpoints include:
    - Complete the view identification part of the VRI that identifies known observation points (or complete as part of a CLI or HRS). The remainder of the VRI (view description/scenic quality data, and view importance data) could be completed as needs arise based on potential development that could affect the scenic and historic character of the Barge Canal.
    - Once viewpoints are identified, map the extent of viewsheds in GIS using LiDAR aerial photograph, which can generate elevation models and model viewsheds. This can be done as an office exercise.
- Along land-cut canal sections in western New York, inventory and evaluation of views should be considered looking out from the National Historic Landmark district, from road crossings, and from public gathering areas, such terminals used as municipal parks.
- Along canalized river sections in the Mohawk Valley, inventory and evaluation should address views from the canal looking out, as well as external views looking across the canal from adjacent transportation corridors (Thruway, NY 5 & 5S, Amtrak, etc.), since there is no canalside trail. Most people in these areas experience the Barge Canal through these views.[27]
- Additional criteria and considerations may be needed to inventory and evaluate views along canalized rivers in the marshy central part of the state, where there are few parallel roads and few land-based vantage points.

RECOMMENDATIONS FOR DEVELOPING CONSERVATION TOOLS

The following are preliminary recommendations for potential tools and resources for protecting Barge Canal landscapes based on the findings of this project and input from Erie Canalway National Heritage Corridor staff. [28] Most would benefit from completion of a system-wide inventory/survey to identify significant landscape resources. As Sir Neil Cossens, former English Heritage Trust chair, has often said: “You can’t protect what you can’t identify.”[29]

Strategic Conservation Plan

Development of a plan that establishes conservation criteria to identify areas of high value landscape resources throughout the Barge Canal system, including historic, scenic, and natural resources, would provide ERCA and its partners with a roadmap for conservation efforts. The criteria could include a scoring system to prioritize land conservation efforts. Having a conservation plan in place could help define inventory and evaluation work on historic and scenic landscapes. A conservation plan could also identify potential threats, such as sprawl development, loss of farmland, highway expansion, and energy development. Strategic Conservation Plans are often done by land trust, but they are often focused on natural resources and not on cultural landscape preservation. A recent example is the Thousand Islands Land Trust Strategic Conservation Plan. [30]

Legal Land Protection Measures

Easements and covenants are legal tools to protect important lands and resources. Easements provide rights or restrictions on property without ownership, while covenants involve purchase of an ownership interest (less than fee). Both can help to manage changes to a property that could damage its historic, scenic, or natural values. Conservation easements, usually used to protect natural resources, are the most common, but there are also historic preservation easements and covenants that could be used to protect historic properties, building facades, and other historic features. The Erie Canalway National Heritage Corridor Commission is restricted from acquiring interest in property but could partner with the state, municipalities, and non-profits.

Land Trust Partnerships

Land trusts are non-profit organizations dedicated to the conservation of land, usually focused on natural and recreational resources. Land trusts protect land from inappropriate development by acquiring conservation easements, accepting donations of land, and acquiring property in fee. Establishing a land trust dedicated to the Barge Canal would provide an organization focused on protecting the canal's historic, scenic, and natural landscapes. A land trust that covers a similar large corridor is Scenic Hudson that focuses on the Hudson Valley. Working with the Land Trust Alliance and established land trusts that cover regions of the Barge Canal, such as the Mohawk Hudson Land Conservancy and the Western New York Land Conservancy, would be an alternative to establishing a new, dedicated land trust.[31]

Public Education and Advocacy

As mentioned previously, one of the most important tools in protecting Barge Canal landscapes is public involvement, public education, and dissemination of information. This could include working with natural and cultural resource advocacy organizations to create programs dedicated to the Barge Canal. At the

state and national level, these include the National Trust for Historic Preservation, Preservation League of New York State, the Nature Conservancy, and the American Farmland Trust, along with many local and regional organizations. These efforts could build off the Erie Canalway National Heritage Corridor's existing network of partners. Expanding the ERCA website to include land protection information and resources could also be part of public education and advocacy.[32]

Regional and Municipal Planning

Since land-use planning and development in New York State is the power of local governments, coordination is critical for conserving the historic setting of the Barge Canal that transcends multiple local government jurisdictions. Coordinating planning could be supported by state agencies with Barge Canal and Canalway Corridor planning responsibilities, regional planning agencies and county planning departments. While none of these agencies supersede local government jurisdiction, their comprehensive plans and other initiatives may provide vision, guidance, technical, and financial support. A coordinated program for Barge Canal-related planning could help disseminate data and foster consistent planning across the corridor.[33]

Historic Preservation Laws and Programs

Federal and New York State historic preservation regulations and programs can support efforts to conserve urban and rural Barge Canal landscapes. The following are potential examples:

- Encourage canal municipalities (county, town, village, city) to establish historic preservation programs through the Certified Local Government (CLG) Program, which makes available federal grant funding and technical assistance through the National Historic Preservation Act (NHPA). To become a CLG, municipalities must have a local historic preservation law or ordinance to protect historic properties.[34]
- Integrate canal landscape inventory efforts with other historic resource surveys undertaken by the state, local governments, or not-for-profits. An example currently being planned is the New York State Historic Preservation Office's canal communities historic resource survey.
- Ensure state and federal agencies are complying with Sections 14.09 of the New York State Historic Preservation Law and Section 106 of the National Historic Preservation Act, "Protection of Historic Properties" (36 CFR Part 800). For National Historic Landmarks, Section 110(f) of the NHPA requires federal agencies take a higher level of review: "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark."[35] These are process laws and do not guarantee a preservation outcome.

Preservation and Conservation Funding and Technical Assistance

Encourage municipalities and landowners to take advantage of grant programs, technical assistance, and regional planning related to historic preservation and natural resource conservation, such as those offered by the Preservation League of New York State and New York State Environmental Protection Fund, in addition to the grants and assistance already provided by the Erie Canalway National Heritage Corridor. The New York State Department of State Local Waterfront Revitalization Program has long been an important source of funding and technical assistance to canal communities.[36]

ENDNOTES

1 National Park Service, "Erie Canalway National Heritage Corridor Preservation and Management Plan" (Unpublished report, October 2006), 1.1.

2 Description of the Barge Canal System from Bob Radliff, Director, Erie Canalway National Heritage Corridor, and Duncan Hay, NPS Historian, comments on December 2022 draft report [hereafter, "ERCA comments on December 2022 draft"].

3 Erie Canalway National Heritage Corridor, NPS Project PMIS 259047, "Cultural Landscape Inventory & Assessment – Erie Canalway NHC," last updated December 20, 2018.

4 ERCA comments on December 2022 draft.

5 Duncan Hay, National Park Service Historian, "New York State Barge Canal" National Historic Landmark documentation, (Unpublished report, April 2014, designated December 23, 2026), Section 01 "Intro-Narrative,"

6 Erie Canalway National Heritage Corridor Commission Charter (2004). The Commission promotes historic preservation, natural resource conservation, recreation, interpretation and orientation, tourism, and economic revitalization among the numerous federal, state, and local governments, not-for-profit organizations, and private landowners who are the stewards of the Corridor.

7 Preservation and Management Plan, 1.7, 3.33-3.34.

8 Preservation and Management Plan, 3.34.

9 "Cultural Landscape Inventory & Assessment – Erie Canalway NHC," PMIS 259047, December 20, 2018; ESF workscope, "Develop Pilot Cultural Landscape and Visual Assessment Inventories for the New York State Barge Canal System," March 5, 2021 with final ERCA comments dated March 9, 2021. ESF presented the project work scope in March 2022 to a project advisory group representing ERCA, the New York State Canal Corporation, New York State Department of Environmental Conservation, New York State Historic Preservation Office, and the National Park Service National Heritage Areas Program. The methods and limits of the pilot study areas were adjusted as research and field work progressed through summer 2022 based on limits of time and logistics.

10 National Park Service, Park Cultural Landscape Program, "Defining Cultural Landscapes," https://www.nps.gov/subjects/culturallandscapes/understand-cl.htm (accessed December 2, 2022).

11 Robert R. Page, with revisions by Jeffrey Killion and Gretchen Hilyard, *National Park Service Cultural Landscapes Inventory Professional Procedures Guide* (NPS Park Historic Structures and Cultural Landscapes Program, January 2009). An updated *Guide* was published in 2025.

12 Anne Derry et al, *National Register Bulletin 24, Guidelines for Local Surveys: A Basis for Preservation Planning (Washington, D.C.: National Park Service, 1977, revised 1985)*.

13 Bureau of Land Management Visual Resources website, "National Park Service Visual Resource Inventory," https://blmwyomingvisual.anl.gov/vr-inventory/nps/ (accessed June 2022). Other agencies and organizations also use the term Visual Resource Inventory for their own methods.

14 Preservation and Management Plan, 3.13; Project Work Plan, "Develop Pilot Cultural Landscape and Visual Assessment Inventories for the New York State Barge Canal System," March 2021. The project did not address sections of "canal" through lakes and other areas of open water, such as Oneida Lake and Cayuga Lake, which is limited to a navigational channel in areas identified by buoys and other markers during the navigation season.

15 The ESF team originally defined the pilot area as extending west to Albion but shortened the area as it got a better sense of the amount of time required to complete the three inventory methods.

16 The ESF team originally proposed beginning the pilot area on the west at Lock E-16, but that stretch was excluded to save time since there were three other lock complexes in the pilot area, and because Lock E-16 it is within a land-cut section.

17 "Thorough" means research in selected published and documentary sources of known or presumed relevance that are readily accessible without extensive travel; "Limited" means research in available published sources and documentary sources if easily accessible. National Park Service, *Cultural Resource Management Guideline*, NPS-28, web edition, 11 June 1998, 17-19, http://www.cr.nps.gov/history/online_books /nps28/28contents.htm.

18 The land-cut canal boat trip was from the Main Street bridge in Brockport west to the Albion shops (Albion was the original western extent of the pilot area; the area was shortened due to schedule after the boat trip plans had been set).

19 The ESF faculty member who was to provide the project team with GIS expertise left the college unexpectedly at the end of the spring 2022 semester. The project hired a graduate student in the summer to fill this void, but there were gaps in GIS expertise needed for the project.

20 ERCA comments on December 2022 draft.

21 New York State Canal Corporation, "Earthen Embankment Integrity Program," https://www.nyscanalintegrity.org/.

22 ERCA comments on December 2022 draft.

23 *Ibid*.

24 *Ibid*.

25 *Ibid*. VRI scenic quality criteria can augment the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to evaluate the effects of new development on the historic character of the Barge Canal.

26 ERCA comments on December 2022.

27 *Ibid*.

28 The original scope of the project (NPS Project PMIS 259047) called for identifying protection tools, but the project team omitted this from the revised scope. Inventory projects do not usually address treatment/future conditions.

29 Quoted in ERCA comments on December 2022 draft.

30 Thousand Islands Land Trust, https://tilandtrust.org/conservation/news/tilt-earns-national-recognition (accessed September 6, 2024). The strategic conservation plan is not publicly available due to sensitive information about land acquisition priorities.

31 Land Trust Alliance, "Gaining Ground," https://landtrustalliance.org/land-trusts/explore?page=3 (accessed September 6, 2024).

32 Resource protection (preservation, conservation) is not one the subject tabs on the ERCA website, https://eriecanalway.org/; the topic can be found in the link to the Erie Canalway Preservation and Management Plan under "Find Resources" tab.

33 There are five Regional Planning and Development Boards (or councils) that include the Barge Canal: Capital District, Central New York, Genesee/Fingers Lakes, Herkimer-Oneida and Lake Champlain-Lake George. Coordination among these boards could provide a regional planning framework for much of the Barge Canal.

34 New York State Parks, Recreation and Historic Preservation, "Certified Local Governments," https://parks.ny.gov/shpo/certified-local-governments/ (accessed September 6, 2024). Current Barge Canal communities that are CLGs are limited to: Brockport, Fairport, Pittsford, North Tonawanda, Palmyra, Rochester, Schenectady, Seneca Falls, and Syracuse.

35 Advisory Council on Historic Preservation, "Section 106 Consultation Involving National Historic Landmarks," https://www.achp.gov/digital-library-section-106-landing/section-106-consultation-involving-national-historic-landmarks (accessed September 5, 2024).

36 New York State, Local Waterfront Revitalization, https://dos.ny.gov/local-waterfront-revitalization-program (accessed September 6, 2024). ERCA's website lists grants but limited to its own program and the state's to support tourism and recreation along the canal system, https://eriecanalway.org/resources/grants (accessed September 6, 2024). Land conservation and preservation sources are not addressed as of 2024.

1. INVENTORY METHODS AND FINDINGS

This chapter describes the three inventory methods that this project applied to the landscapes of the New York State Barge Canal: Cultural Landscape Inventory (CLI), focused on the National Historic Landmark (NHL) district (canal proper); Historic Resource Survey (HRS), focused on lands adjacent to and in view from the canal; and Visual Resource Inventory (VRI) that addressed views from points along the canal (fig. 1.1, see also fig. 0.6). The chapter also includes a summary of findings from each inventory method. Data collected through the three methods in the two pilot inventory areas are in chapters 2 and 3.

CULTURAL LANDSCAPE INVENTORY

The Cultural Landscape Inventory (CLI) addresses the area within the National Historic Landmark (NHL) district maintained by the New York State Canal Corporation. The CLI documents the broad aspects of the Barge Canal that extend beyond the NHL district boundaries, and provides an inventory of manageable aspects of the landscape within the NHL district defined by the

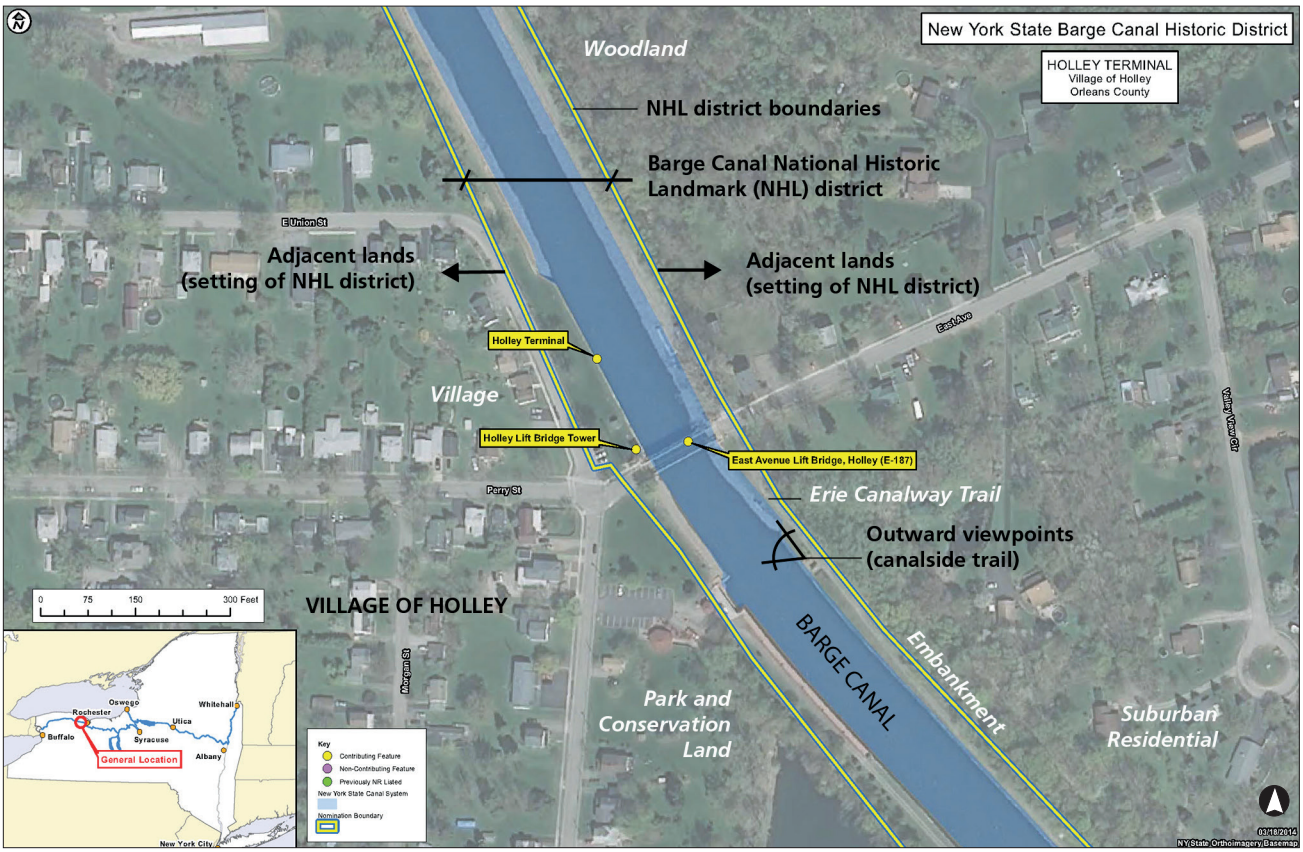


Figure 1.1 National Historic Landmark documentation map for a section of the land-cut canal at Holley showing geographic extent of three landscape types: Barge Canal (NHL district), adjacent lands (setting of the Barge Canal NHL district), and scenic landscapes (viewsheds that overlap the canal and adjacent landscapes). (National Historic Landmark, GIS Orthophoto map for Holley Terminal, Orleans County, annotated by SUNY ESF)

outer edge of the canal embankments and associated canal facilities such as locks, terminals, and maintenance shops. The landscape inventory component is intended to supplement the historic resource inventory in the NHL documentation, which is limited to canal buildings and structures, and to provide supplemental historic resource data for facilities inventoried in the New York State Canal Corporation's Canal Infrastructure Management System (CIMS).

The intended primary users of this inventory information are the Canal Corporation, which operates and maintains the Barge Canal, and other state and federal agencies that review canal undertakings under Section 106 of the National Historic Preservation Act of 1966, Section 14.09 of the New York State Historic Preservation Law, and other environmental regulations.

CLI METHOD OVERVIEW

The Cultural Landscapes Inventory (CLI) was developed by the National Park Service as a comprehensive database on the history, existing conditions, and significance of cultural landscapes within the National Park System. The method for undertaking a CLI is detailed in *National Park Service Cultural Landscapes Inventory Professional Procedures Guide* (2009). Although developed for NPS units, the CLI method is applicable to non-NPS cultural landscapes. Due to the limited scope, this pilot CLI focused on the Analysis and Evaluation section of the CLI, which is the core of the inventory and analyzes the landscape according to landscape *characteristics*, which are broad aspects of the landscape, and landscape *features*, which are manageable facets associated with each characteristic.[1]

For the Barge Canal, the pilot CLI contains a narrative of each landscape characteristic that conveys an overview of that particular aspect of the landscape. As defined in the CLI Guide, there are thirteen landscape characteristics:

- Natural Systems
- Spatial Organization
- Land Use
- Cultural Traditions
- Cluster Arrangement
- Circulation
- Topography
- Vegetation
- Buildings and Structures
- Constructed Water Features
- Views and Vistas
- Small-Scale Features
- Archeological Sites

Most of these characteristics are not mutually exclusive; for example, Vegetation may define Spatial Organization and Views and Vistas. Given the narrow corridor of the NHL district, adjacent lands (state and other owned) define many of the landscape characteristics of the Barge Canal.

A narrative description of each landscape characteristic and how it has changed since the NHL period of significance (1905-1963) is presented in summary format under Evaluation Findings. Sample landscape features are listed, while all features inventoried are captured in table format for each pilot area (see chapters 2 and 3). Each feature is evaluated based on significance documented in the NHL and change in character since the end of the end of the NHL period of significance (1963). Features are evaluated to determine whether they contribute to the historic character of the Barge Canal landscape. If a feature is non-contributing, it is evaluated as either "compatible" or "incompatible" with the historic character of the landscape.

A preliminary data dictionary, or listing of potential types of landscape features, was developed to help guide the team's field work and data collection. Examples of data dictionary entries for the district include:

> Bank Armor (wash walls), Boat Ramp, Bridges (Girder, Lift, Plate Girder, Truss), Buoy, Cabinet (containing electrical switches for the locks), Canal Park, Culvert, Dock Wall, Embankment, Guard Gate, Light Standard, Lock Chambers, Permit, Powerhouse, Prism, Shops, Snubbing Posts, (tie-ups or bollards), Spillway, Terminal, Trailhead, Turning Basin, Widewater.

CLI RESEARCH AND FIELDWORK

Research into applying the Cultural Landscapes Inventory method to the linear landscape of the Barge Canal included review of NPS CLIs for the Carriage Roads (2013) and Hiking Trail (2016) systems at Acadia National Park, and the Appalachian Trail (2007) at Shenandoah National Park. The inventory method used to document resources for the National Historic Landmark nomination of the Barge Canal also provided a relevant framework for the CLI.

The main sources of information on historic and existing conditions included National Historic Landmark documentation and mapping, canal facilities inventoried in the New York State Canal Corporation Canal Infrastructure Management System (CIMS), canal lands and trail features inventoried in the Empire State Trail/Erie Canalway "GPI Trail Data," historic aerial photographs, Barge Canal construction plans, and a limited number of historic ground-level photographs from the later period of significance.

Landscape characteristics were described comprehensively in both pilot areas. The inventory emphasized historic features associated with each characteristic that were not previously inventoried in the NHL documentation. Non-historic features already inventoried in NYS Canal Corporation databases were generally field checked and grouped if similar. Canal facilities, lands, and trail features data were not made available until after field work had begun (some time was spent inventorying these features and lands not knowing the information already existed). Field notes were captured on print-outs of maps and aerial photographs, and on two forms: "Mile Segment Summary Form," used to tally the types and number of features inventoried; and the "Mile Segment Character-Condition Form" to record overall impressions and the physical conditions of the landscape (see Appendix A for sample completed forms). The Character-Condition Form also captured information about adjacent landscapes inventoried using the Historic Resource Survey method.

CLI INVENTORY AND EVALUATION

The inventory and evaluation produced for this project using the Cultural Landscape Inventory (CLI) method (CLI Analysis & Evaluation chapter) is organized by landscape characteristics and includes the following:

1. Definition of the characteristic
2. Summary of the inventory method
3. Main sources of information
4. Examples of landscape features
5. Evaluation findings for each pilot area (land-cut canal and canalized river).

Each landscape characteristic includes two photographs to illustrate representative existing conditions in the land-cut canal and in the canalized river pilot areas (obtaining matching historic photographs was beyond the project scope). An overall summary of the CLI inventory and evaluation of the Barge Canal landscape is at the end of the section, accompanied by paired historic and existing condition illustrations to graphically depict changes since the historic period (historic illustrations for each characteristic were not available due to the limited project scope).

Feature inventory data is found in tables 2.1 and 3.1 (chapters 2 and 3). For each feature, the following data was collected:

1. Feature name
2. Location—mileage along the canal
3. Whether the feature is a NHL resource

4. If the feature is captured in a New York State Canal Corporation inventory
5. Evaluation of how the feature contributes to the historic character of the Barge Canal landscape (contributing, non-contributing, or unevaluated if insufficient information is available). An explanation of how the feature contributes is provided in most instances only for features not previously inventoried in the NHL documentation.

Geospatial mapping (in ArcGIS) of landscape features is a key component of this landscape inventory work, but was not completed due to the limited scope of this pilot project. An illustrative map showing how landscape features could be illustratively mapped within a segment of the land-cut canal at Brockport is included in Appendix C (drawing 1). The features mapped on this drawing correlate to the inventory of landscape features in the land-cut canal pilot area in chapter 2 (table 2.1).

Natural Systems and Features

Natural systems and features are natural aspects that have influenced the physical form of a landscape, and can include geology, geomorphology, hydrology, ecology, climate, and native flora and fauna (planted/managed vegetation is inventoried under Vegetation).

Inventory Method: Natural systems within the Barge Canal landscape are inventoried at the characteristic level by systems and patterns. Inventoried natural features were limited to streams that cross the land-cut canal or flow into the canalized river, woods on land-cut canal embankments, and trees and hedgerows along the riverbanks. The Mohawk River, although modified, is a natural feature. Features were evaluated based on changes in overall extent based on historic aerials, as well as on field observation to assess type and age of trees and woods.

Main Sources: Field observation, 1958–1960 aerial photographs, *onX* maps (landcover data/tree species), New York Natural History endangered species database.

Feature Examples: Embankment Woods (non-contributing), Mohawk River (contributing), Abeel Island (contributing).

Evaluation Findings: Overall, natural systems are more prevalent in the Barge Canal landscape than they were historically. Natural systems are not well documented in existing inventories, although existence of embankment woods can be inferred from the "mowable areas" GIS data layer (Empire State Trail GPI Trail Data). Embankment woods are addressed in the NYSCC Earthen Embankment Integrity Program, but location data was not obtained for this inventory.





Figure 1.2 (left). Natural Systems and Features, land-cut canal: Embankment woods bordering the Erie Canalway Trail looking east near the NY 31 bridge west of Brockport, June 2022. (SUNY ESF)
Figure 1.3 (right). Natural Systems and Features, canalized river: Riverbank woods looking north near Canajoharie, July 2022. (SUNY ESF)

- Land-cut Canal (figure 1.2): As an engineered structure, natural systems were not a dominant characteristic of the landscape, but did include marine animals, scattered woodlots and wetlands adjacent to the canal embankments, and streams channeled beneath the prism. Today, natural systems are a dominant characteristic due to growth of woods on canal embankments and woodlands on adjacent lands (see Adjacent Landscapes). There are also unmanaged grasses and forbs growing in the wash walls/ rip-rap along the edges of the prism, and endangered mussels in the prism near Brockport and Hulberton, including: Fragile papershell (imperiled), Pink Heelsplitter (Imperiled), Lilliput (imperiled), and Deertoe (critically imperiled).[2] Embankment woods detract from the landscape's open spatial character, threaten the structural integrity of embankments (topography), and block historic views across open fields, but may also screen non-historic development. Some woods have been removed in recent years as part of the Canal Corporation's Earthen Embankment Integrity program.
- Canalized River (figure 1.3): Natural systems within the canalized river include the Mohawk River, its tributaries, and woods and trees along its banks. Woods and trees existed historically along the banks, but today are, much more prevalent and are nearly continuous throughout the pilot area, except in developed areas.

Spatial Organization

Spatial organization is the three-dimensional arrangement of physical forms and visual associations in a landscape, including the articulation of ground, vertical, and overhead planes that define and create space. Spatial organization is defined by other landscape characteristics and associated features.

Inventory Method: Spatial organization within the Barge Canal landscape is inventoried at the characteristic level by overall patterns of spaces. Inventoried

spatial features include the canal corridor and enlarged areas created to accommodate canal facilities and activities, plus existing recreational nodes such as trailhead areas. Changes since the historic period are evaluated by determining changes to spatial limits.

Main Sources: Field observation, historic photographs and postcards, 1959 aerial photographs.

Feature Examples: Hulberton Shops Area (unevaluated); Hulberton Dock Area (contributing); Canajoharie Terminal Area (Riverfront Park, non-contributing); Lock E-14 Grounds (contributing).

Evaluation Findings: Overall, the primary spatial corridor created by the canal and areas that house canal facilities remain, but the corridor has become more enclosed due to growth of woods and there are fewer distinct breaks due to replacement of truss bridges with girder bridges. Spatial organization is not reflected in existing inventories.

- Land-cut Canal (figure 1.4): The Barge Canal corridor within the NHL district has changed since the historic period from mostly open on both sides, except within hamlets and villages, to mostly enclosed due to growth of woodlands (see Natural Systems). The spaces at terminals and dock areas have been altered with removal of freight houses and conversion to public parks that included redesign of the spaces, notably at the former Brockport terminal. Realignment of road crossings, notably NY 31, replacement of truss bridges, and addition of trailhead areas has changed the spatial character of the corridor in areas.
- Canalized River (figure 1.5): The Barge Canal has retained much of its spatial character defined by the broad Mohawk River and steep wooded banks, but along flats, the formerly open character defined by farm fields has become





Figure 1.4 (left). Spatial Organization, land-cut canal: Historic dock area or terminal at Hulberton (now a canal park), bordered by Canal Road on the right and the canal dock walls on the left, looking west from the Hulberton Lift Bridge, June 2022.
Figure 1.5 (right). Spatial Organization, canalized river: Lock E-14 canal park area (field), looking west to tip of island, July 2022. The planted row of walnut trees at right is a feature under Vegetation. (SUNY ESF)

enclosed due to growth of woodlands and hedgerows. Lock grounds remain but have changed due to enlargement for canal parks, addition of fences, and growth of successional woods along the edges. The spatial character of the Canajoharie terminal and the Lock E-13 area have been substantially changed through redevelopment as parks (Riverfront Park, Mohawk Valley Welcome Center—Thruway rest stop).

Land Use

Land use consists of the activities in a landscape that form, shape, and organize the landscape as a result of human interaction.

Inventory Method: Land use along the Barge Canal is described at the characteristic level to describe activities on the canal and in adjacent canal facilities, and along the canal-side trail. Inventoried land-use features include permitted public and private uses, and places such as designated picnic areas that are not defined by other characteristics. Evaluation of these features is assessed by whether they continue a historic land use or have caused changes to the historic landscape. Detailed inventory of land use (boat traffic, foot traffic, agricultural irrigation, etc.) was not addressed.

Main Sources: Field observation, Empire State Trail GPI Trail Data, NYSCC Water Trail Guide, *onX* maps (land ownership/tax parcel data), Matthew Lengel, NYSCC Director Asset Management & Inspection.

Feature Examples: Village of Brockport Permit – Brockport Terminal Area (non-contributing); Village of Canajoharie Permit – Riverfront Park (non-contributing); Water Trail access points (non-contributing).

Evaluation Findings: Overall, the primary use of the Barge Canal landscape for navigation, as a through-route from the Hudson River to the Great Lakes, remains, although the use has changed from mostly commercial to mostly recreational. Recreational uses include boating, fishing, running, and biking. Expansion of recreational uses in lock areas and along the banks of the canal (trail) have led to the introduction of many new features in the landscape (see Spatial Organization, Circulation, Buildings and Structures, Small-Scale Features). Changes in land use are described in the NHL documentation and reflected in the Empire State Trail GPI Trail Data and permit records.

- Land-cut Canal (figure 1.6): The Barge Canal landscape between Brockport and Hulberton has changed in use since the historic period from a mostly utilitarian commercial landscape to a primarily recreational landscape. There is no history of recreational boat use within the pilot area prior to this time since the canal was largely cordoned off to the public through the 1980s. Terminal areas have been converted to public parks (permitted areas), and development of the Erie Canalway Trail along the former north embankment





Figure 1.6 (left). Land Use, land-cut canal: A wooden dock reflecting permitted uses for private boat access looking west along the canal trail west of Brockport, June 2022. (SUNY ESF)
Figure 1.7 (right). Land Use, canalized river: Lock E-15 canal park (picnic area), looking north, July 2022. (SUNY ESF)

service road. Other uses include agricultural irrigation (siphons; history not documented) and permitted private boat access (docks, presumably post-1980).

- Canalized River (figure 1.7): The Mohawk River pilot area has historic and current uses for recreation and flood control, but its historic use for commercial boat traffic has largely ceased. The history of recreational use extended before the construction of the Barge Canal and is evidenced during the historic period by conversion of the St. Johnsville terminal to a municipal marina in 1953. The present dominant recreational use of the canal has resulted in less change to the character of the landscape than the land-cut canal due to this historic recreational use and because the Erie Canalway Trail is mostly remote from the river. Establishment of canal parks at locks and municipal parks at terminals has introduced recreational features such as picnic tables, barbecues, benches, gazebos, and expanded areas of parking, mown turf, and ornamental plantings.

Cultural Traditions

Cultural Traditions (ethnography) are cultural practices that have influenced the development and use of a landscape.

Inventory Method: Cultural traditions were documented at the characteristic level, with no associated features (manageable resources) identified.

Main Sources: Field observation, NHL documentation, Duncan Hay, NPS Historian.

Feature Examples: not applicable (no features identified).

Evaluation Findings: Due to the limited scope of this project, documentation of cultural traditions associated with the New York State Barge Canal was undertaken at a cursory level and was not distinguished between the two pilot areas. The Barge Canal appears to reflect cultural traditions associated with state government infrastructure development (e.g., standardized design and maintenance), and ongoing state canal operations and maintenance (e.g., canal workers, annual competition for best lock grounds). Cultural traditions associated with commercial navigation on the canal, which reaches back to the original construction of the Erie Canal, has largely been lost. Research is needed to identify cultural traditions that may be reflected in canal-side communities' use of, and association with, the Barge Canal, and Haudenosaunee Confederacy associations with canal lands. The Mohawk village (castle) of *Te-non-to-ge-re* was located on uplands above the Barge Canal/Mohawk River near Sprakers in the 1600s prior to its destruction by French-allied raiders (Greene, 1924).

Cluster Arrangement

Cluster Arrangement is the location and pattern of buildings, structures, and associated spaces in the landscape.

Inventory Method: Cluster Arrangement was documented at the characteristic level, with no associated features (manageable resources) identified. Developed areas within the Barge Canal NHL are inventoried at the feature level under the Spatial Organization characteristic. Clusters of urban development adjacent to the canal are inventoried under Adjacent Landscapes (Hamlet, Village)

Main Sources: Field observation, Historic USGS topographic maps, 1958–1960 aerial photographs.

Feature Examples: Not applicable (no features identified).

Evaluation Findings: Overall, the Barge Canal landscape is characterized by clusters of canal development at canal facilities, bordered by clusters of urban development within villages separated by wooded and rural areas.

- Land-cut Canal: The pilot area between Brockport and Hulberton historically had clusters of canal facilities at the Brockport and Holley terminals, with lesser clusters at the lift bridges and along dock walls. This character has been diminished since the historic period due to loss of freight houses and other canal facilities at the terminals. A cluster of canal facilities at the Hulberton shops was not evaluated based on lack of documentation on its historic condition. The character of clusters of urban development along the canal, which predate construction of the Barge Canal, remains in large part, but has become less distinct in areas due to spread of suburban development, particularly around Brockport (see HRS inventory and evaluation).

- Canalized River: The pilot area between St. Johnsville and Lock E-13 retains its historic clusters of development at the locks, but the terminals at St. Johnsville and Canajoharie have become less recognizable as canal facilities due to conversion to municipal parks. Lock E-13 has become a larger cluster of development due to addition of Thruway rest stop (Mohawk Valley Welcome Center). Unlike the land-cut canal, clusters of urban development were historically set back from the Barge Canal since urban development occurred along the towpath canal that was south of the Mohawk River. This character, of villages not directly tied to the Barge Canal, has remained largely unchanged since the historic period.

Circulation

Circulation consists of systems of movement through a landscape, generally recognizable by surface materials. Major built features within systems of movement, such as bridges, are defined under Buildings and Structures

Inventory Method: In addition to the water-route created by the Barge Canal, circulation features were inventoried as roads, walks, and trails within or crossing the NHL district. Roads that cross the canals were not inventoried as circulation features, but the bridges that carry them were inventoried under Buildings and Structures. The Erie Canalway Trail (Empire State Trail) in the canalized river pilot area was not inventoried because it is remote from the canal, per the project scope. Typical circulation features, such as spurs from the Erie Canalway Trail to public roads, were grouped as one feature.

Main Sources: Field observation, NYSCC Canal Infrastructure Management System (CIMS), Empire State Trail GPI Trail Data, Historic USGS maps, 1958–1960 aerial photographs.

Feature Examples: Canal Access Road North (Erie Canalway Trail, contributing); Lock E-14 Access Road (contributing).

Evaluation Findings: Circulation is a defining characteristic of the Barge Canal, and in particular the continuous navigable waterway between the Hudson River and Lake Erie. Numerous lesser circulation features along terminal walls, dock walls, and to canal buildings and structures exist throughout the district but were not comprehensively inventoried. The many new and redesigned circulation features along the Erie Canalway Trail and at canal terminals reflect conversion of the district to recreational use. Overall, circulation features aside from the Erie Canalway Trail are not well documented in existing inventories.

- Land-cut Canal (figure 1.8): Since the end of the historic period, circulation remains aligned with the canal. The north service road, now the Erie Canalway Trail (Empire State Trail) and once the canal tow path, remains mostly gravel surfaced. A section of the road at Brockport has been





Figure 1.8 (left). Circulation, land-cut canal: North Access Road, now the Erie Canalway Trail (Empire State Trail) looking east from East Road, Holley, June 2022. The trail is on the Holley embankment (see Topography) (SUNY ESF)
Figure 1.9 (right). Circulation, canalized river: Access road and sidewalk to Lock E-14 looking southeast, July 2022. (SUNY ESF)

redesigned as a formal promenade with brick-like pavement. New walkways have been added to the Brockport terminal as part of its conversion to Harvester Park, and along the Holley south dock/embankment wall as part of Holley Canal Park.

- Canalized River (figure 1.9): Since the end of the historic period, circulation within the pilot area remains largely unchanged in character at locks E-14 and E-15, except for expansion of parking areas associated with canal parks and possible addition of new walks. Circulation at Lock E-13 has been significantly altered through addition of the Thruway ramp, large parking lot, and informal network of walks as part of the recently built Mohawk Valley Welcome Center. The historic approach road that connected the powerhouse to the lock remains but has been bisected by the Thruway ramp. At the Canajoharie terminal, a new circulation system has been added as part of Riverfront Park, which reflects little of the utilitarian character that existed historically. The St. Johnsville terminal retains its access road and walk along the terminal/dock wall. The parking lot and boat ramp are presumed to pre-date 1963, but are not associated with the historic significance of the Barge Canal. The Erie Canalway Trail enters the pilot area only at Lock E-15, along a public road that borders the lock grounds and canal park.

Topography

Topography is the three-dimensional built configuration of the landscape surface, including slope and orientation. Natural landforms are defined under Natural Systems and Features.

Inventory Method: Topography is described at the characteristic level as the overall built landform of the canal prism. Inventoried features include embankments, inventoried as a group with reference to CIMS sections. Some features were

identified in the field, notably spoils berms that border the canal trail near Hulberton. Ditches associated with drainage and culverts were identified in CIMS inventory, but not field checked, and most are not visible from the canal or canal-side trail. Minor built topographic features were not inventoried.

Main Sources: Field observation; NYSCC Canal Infrastructure Management System (CIMS); Historic photographs and postcards; Barge Canal contract drawings (Plan & Profile site plans); 1958–1960 aerial photographs, Matthew Lengel, NYSCC Director Asset Management & Inspection.

Feature Examples: Canal Embankments (contributing); Ditches (unevaluated); Spoils Berms (contributing).

Evaluation Findings Topography associated with the Barge Canal has undergone little change in built form since the historic period, but the outward character has been obscured in areas by the growth of woods. Embankments and ditches are well documented in existing NYSCC inventories, but other topographic features that are not maintained, such as spoils berms and terraces at lock complexes, are not.

- Land-cut Canal (figure 1.10, see also fig. 1.8): Earthen embankments, essentially earthen dams, are a character-defining feature of the land-cut canal. Although largely unchanged since the historic period, many sections are in poor condition due to seepage, erosion, and damage from tree cover. Most of the embankments grew up in woods after 1963, but sections have been cleared in recent years. Narrow, tall spoils berms from construction of the Barge Canal (documented on contract drawings) are found on top of the embankments along the Erie Canalway Trail and adjacent to the prism on the north side of the canal in the Hulberton area. They are now mostly tree-covered and not highly visible except on close inspection. Other spoils





Figure 1.10 (left). Topography, land-cut canal: Spoils berm bordering the Erie Canalway Trail near Hulberton concealed by woods, looking east, June 2022.

Figure 1.11 (right). Topography, canalized river: Terrace built of fill at the east end of the Lock E-14 grounds looking east, July 2022. This terrace is supported by the lock guide wall. (SUNY ESF)

berms may reflect historic dredging of the canal to maintain depth for large commercial vessels.

- Canalized River (figure 1.11): The Barge Canal in the Mohawk River was not historically characterized by built landforms, except at the lock complexes such as lock E-15 where the ground was leveled and raised with spoils from construction of the navigational channel, as shown on Barge Canal contract drawings. Minor built-up banks were constructed along the river and at creek entries but are largely not visible today due to vegetation. Spoils from ongoing dredging of the navigational channel are deposited on outlying state canal lands outside the NHL boundary. Additional research and field work is needed to document all topographic features along the canalized river.

Vegetation

Vegetation consists of trees, shrubs, vines, ground cover, and herbaceous plants that are planted or maintained. Natural, unmanaged flora such as woodlands are described under Natural Systems and Features.

Inventory Method: Inventoried vegetation features aside from turf were limited to major plantings that appear to date to the historic period, including specimen trees, groves, windbreaks, and ornamental beds within locks, terminal, and dock areas. Mown ground cover (grass/forbs) are described at the characteristic level. Newer ornamental shrubs, trees, and other non-historic vegetation associated with public parks at permitted terminal areas and at trailheads along the Erie Canalway Trail are inventoried as a group.

Main Sources: Field observation, historic photographs and postcards, 1958–1960 aerial photographs.

Feature Examples: Hulberton Dock Area Plantings (unevaluated), Brockport Promenade Tree Allée (non-contributing), Lock E-13 Powerhouse Norway spruce Grove (contributing), Lock E-14 arborvitae windbreak (contributing).

Evaluation Findings: Overall, managed vegetation is a defining characteristic of the Barge Canal landscape based on the prevalence of mown grasses/forbs within maintained areas. Ornamental vegetation is generally a minor characteristic of the landscape, but there are prominent features around canal facilities.

- Land-cut Canal (figure 1.12): Maintained vegetation within the pilot area was historically characterized by mown grasses/forbs used to stabilize earthen embankments and other built landforms, along with some ornamental plantings (specimen trees, herbaceous beds) at the lift bridges and terminal areas. Mown turf together with specimen trees at the Holley terminal, and iris/lilac/yucca at the Hulberton lift bridge may date to the historic period and were probably informally planted by canal maintenance workers. Since the historic period, mown areas on the embankments have not been maintained





Figure 1.12 (left). Vegetation, land-cut canal: Embankment screening hedges recently planted on cleared embankments, looking at section east of Holley, June 2022. (SUNY ESF)

Figure 1.13 (right). Vegetation, canalized river: Arborvitae hedge or windbreak at Lock E-14 that predates 1963, looking west, July 2022. (SUNY ESF)

and have grown up in woods, although some woods have been removed in recent years through the NYSCC Earthen Embankment Integrity Program. Non-historic ornamental shrubs (burning bush) occur at the trailhead kiosks on the Erie Canalway Trail at Holley and Brockport, while an allée of trees and ornamental shrubs line the section of trail (North Service Road) in Brockport that was redesigned as a promenade. These features detract from the historic utilitarian character of the canal landscape. Most recently, lines of mixed deciduous and coniferous shrubs (hedges) were planted as screening where embankment woods adjacent to residential areas have been cleared. These are compatible due to their use of native varieties and low height that do not detract from the historic utilitarian character and overall open spatial character of the canal landscape.

- Canalized River (figure 1.13): Maintained vegetation within the pilot area was historically at the lock complexes and was characterized by mown grasses, arborvitae and Norway spruce windbreaks (groves and hedges), and herbaceous beds maintained by lock keepers. These features remain. Vegetation added since 1963 is associated with the development of canal parks at the locks, primarily specimen trees (Norway maple, ash) and a line of walnut trees at the lock E-14 canal park. Several large cottonwood trees at the Lock E-14 canal park predate 1963 and most likely originated as volunteers. This vegetation is generally compatible with the historic character of the landscape. More recent introduction of ornamental vegetation, notably at the Canajoharie terminal/Riverfront Park, and at Lock E-13 as part of the Mohawk Valley Welcome Center, is not compatible with the historic utilitarian character of the Barge Canal landscape.

Buildings and Structures

Buildings are constructs primarily used for sheltering human activity, while structures are constructs used for other purposes.

Inventory Method: All buildings and structures are well inventoried in the NHL documentation and NYSCC Canal Infrastructure Management System (CIMS). The focus of this inventory is on cross-referencing other inventories and on describing how buildings and structures define the overall character of the Barge Canal landscape. Wash walls (rip-rap) along embankments were inventoried as single features along the land-cut canal, while similar bank protection along the canalized river that is not maintained or visible was not inventoried. Culverts in the land-cut canal were listed as unevaluated because they were not field checked and are not individually inventoried in the NHL documentation; most are not visible from the canal or canal-side trail, but are important parts of Barge Canal engineering and operation. Non-historic buildings and structures associated with the Erie Canalway Trail and non-historic structures such as private docks are inventoried in groups. Buildings adjacent to the canal were captured as part of the character of the canal landscape.

Main Sources: Field observation, National Historic Landmark documentation, NYSCC Canal Infrastructure Management System (CIMS); Barge Canal contract drawings (Plan & Profile site plans); Historic photographs and postcards; 1958–1960 aerial photographs.

Feature Examples: Hulberton Lift Bridge (contributing); Dolphins at Guard Gate 12 (contributing); Erie Canalway Trailhead Pavilions (non-contributing); Embankment Stone Dock Walls (contributing); Guide Wall, Fort Plain (contributing).

Evaluation Findings: Buildings and structures are defining characteristics of the Barge Canal landscape. Their standardized design, color scheme, and utilitarian design are hallmarks of the Barge Canal as an early twentieth-century work of engineering that remains in state ownership and use. Buildings adjacent to the canal (outside NHL district) also characterize the landscape, from farmsteads in rural areas to commercial, industrial, and residential buildings in historic urban and non-historic suburban areas.

- Land-cut Canal (figure 1.14): Canal buildings and structures between Brockport and Hulberton historically consisted mostly of fixed truss bridges, lift bridges with control towers, concrete spillways, waste weirs, and culverts, and concrete dock and terminal walls. Replacement of five of the thirteen historic truss bridges since 1963 has diminished the historic character of the landscape by replacing distinctive focal points with inconspicuous girder bridges. Many of the concrete walls along the canal mark historic nodes of activity and reflect the use of concrete as the dominant material throughout the system. Covering of the dock wall along the Holley embankment (Holley Canal Park) with a rustic timber deck has altered the distinctive appearance of canal infrastructure. Dry-laid rubble stone walls along the embankments,





Figure 1.14 (left). Buildings and Structures, land-cut canal: Bennett's Corner's Road Bridge (Bridge E-186) east of Holley looking east along the Erie Canalway Trail, June 2022. The bridge was recently painted its historic black color instead of the pale green previously used by NYS DOT. (SUNY ESF)

Figure 1.15 (right). Buildings and Structures, canalized river: Buildings, lock, walls, and dam at Lock E-15, looking northeast, July 2022. (SUNY ESF)

notably in the Hulberton area, may be former private dock walls that reflect past adjacent land uses (quarrying, agriculture). Loss of canal freight houses at the Brockport and Holley terminals has diminished the historic clusters of development and markers of canal activity. Since the 1990s, addition of ornamental and rustic wood boat ramps, docks, gazebos, pavilions, and a welcome center at trailheads on the Erie Canalway Trail, at the Brockport terminal, at Sans Souci Park, and adjacent to the Holley embankment have altered the historic utilitarian character and built materials of the Barge Canal landscape.

- Canalized River (figure 1.15): Buildings and structures in the canalized Mohawk River remain largely intact. Buildings and structures are prominent within the three lock complexes in the pilot area (moveable dams, lock chambers, lock cabins, powerhouses, etc.), but much of the canalized river has no visible canal buildings or structures. Just three canal truss bridges historically crossed the pilot area, two of which have been replaced with girder bridges; the NY 10 bridge at Canajoharie has ornamental railings and lights that are incompatible with the utilitarian character of the Barge Canal. The terminal at Canajoharie has lost its freighthouse and gained a large pergola, while a marina shop building has been added to the St. Johnsville terminal; a miniature ornamental lighthouse at the northwestern corner of the terminal basin, part of the municipal marina established in 1953, may date to the historic period but is not related to the historical significance of the Barge Canal. A building has been added in recent years to the Mohawk Valley Welcome Center at Lock E-13, designed to evoke the character of a canal terminal freighthouse.

Views and Vistas

Views and vistas are prospects afforded by a range of vision and are defined by other landscape characteristics and associated features. Vistas are distinguished as discrete framed views.

Inventory Method: Views and vistas were inventoried primarily at the characteristic level, including along the canal as well as views outward across adjacent landscapes. View features were identified to be consistent with viewpoints selected for the Visual Resource Inventory. These were identified to capture representative viewsheds and popular viewpoints as evident by historic postcards and current uses.

Main Sources: Field observation, historic photographs and postcards, 1958–1960 aerial photographs, GIS viewshed analysis.

Feature Examples: View of Main Street Lift Bridge, Brockport (contributing); View of the Noses, Montgomery County (contributing).

Evaluation Findings: Overall, views and vistas are historic characteristics of the Barge Canal landscape, although the canal was not designed or constructed to take advantage of scenery, and today there are few designated viewpoints or scenic overlooks. Since 1963, growth of woods on canal banks and adjacent lands has greatly altered the extent of outward views from the canal. Views and vistas have increased importance related to the recreational use of the Barge Canal.

- Land-cut Canal (figure 1.16): Since the historic period, views and vistas along the land-cut canal in the pilot area have changed due to growth of woods and replacement of bridges. During the historic period, expansive views across adjacent farmland predominated, while today views are mostly enclosed vistas looking along the canal. Expansive outward views remain in the area





Figure 1.16 (left). Views and Vistas, land-cut canal: Outward view across an agricultural field from the Erie Canalway Trail, looking southeast beneath the Telegraph Road Bridge in the Town of Murray, June 2022. This is one of a few expansive views in the pilot area. (SUNY ESF)
Figure 1.17 (right). Views and Vistas, canalized river: View from on the Barge Canal/Mohawk River looking east with the Noses in the distance, July 2022. (SUNY ESF)

east of Brockport where there are large farm fields that extend to the canal, and near Telegraph Road. Loss of truss bridges have removed focal points in the landscape. Existing views within villages and hamlets remain in the foreground to background but have been altered due to introduction of numerous recreational features. Due to the largely level character of the land in this area, there are no views of distant landforms or other features within the pilot area.

- Canalized River (figure 1.17): Since the historic period, views and vistas within the pilot area have changed due to growth of woods. The Mohawk Valley was noted for its natural scenery formed by the winding river and valley ridges long before construction of the Barge Canal. During the historic period, these views remained and were augmented by the addition of the canal's major engineering works—locks, moveable dams, and truss bridges—that formed focal points. Outward views across farm fields and to valley ridges—notably at the Noses east of Canajoharie—made for especially scenic views. Growth of woods along farm fields on flats bordering the Mohawk River since 1963 have restricted outward views except on the approaches to the Noses where ridges are close to the Mohawk River. Replacement of truss bridges with girder bridges at Canajoharie and St. Johnsville have removed distinctive focal points along the canal.

Constructed Water Features

Constructed Water Features are built elements that utilize water for aesthetic or utilitarian functions in the landscape.

Inventory Method: Aside from the canal proper, constructed water features were identified as any extension of the canal prism. The Mohawk River was inventoried as a natural feature, with built approaches to locks and terminal basins as constructed water features.

Main Sources: Field observation, National Historic Landmark documentation, Barge Canal contract drawings (Plan & Profile site plans), 1958–1960 aerial photographs, historic USGS topographic maps.

Feature Examples: Turning Basin West of Brockport (contributing); Private boat slip near Fancher Road (unevaluated); St. Johnsville Terminal Basin (contributing); Lock E-14 West Approach Prism (contributing).

Evaluation Findings: Overall, constructed water features that create a navigable waterway are the defining characteristic of the Barge Canal landscape.

- Land-cut Canal (figure 1.18): The Barge Canal waterway (prism) remains largely unchanged since the historic period throughout the pilot area. In addition to the prism, there is a turning basin west of Brockport that was part of the original Barge Canal construction. A large breach pond north of Holley,





Figure 1.18 (left). Constructed Water Features, land-cut canal: Breach pond west of Holley, looking south from the Erie Canalway Trail, June 2022. This is characterized as a constructed water feature because it is not natural and resulted from human intervention. (SUNY ESF)
Figure 1.19 (right). Constructed Water Features, canalized river: Lock E-14 west approach prism, looking west from the lock with the Mohawk River in the distance, July 2022. (SUNY ESF)

although not original to the Barge Canal, formed during the historic period, but is not related to the historic significance of the canal. A spillway on the Holley embankment that fed into the alignment of the original Erie Canal (Holley Loop) has been filled in since the historic period as part of Holley Canal Park. Spillways near Fancher Road, and at Holley and Brockport are areas of moving water, but the water is inconspicuous within the spillway structure.

- Canalized River (figure 1.19): In the pilot area between St. Johnsville and Lock E-13, most of the navigable waterway is the modified natural river, which has not changed in overall character since the historic period. Associated constructed water features include the west approach prism to Lock E-14, and basins at the St. Johnsville terminal along the Mohawk River, and at the Canajoharie terminal in Canajoharie Creek.

Small-Scale Features

Small-scale features are aesthetic or utilitarian elements in the landscape that individually or collectively provide detail but are not prominent.

Inventory Method: The inventory focused on historic small-scale features that are not represented in existing inventories. Railings and other features that are integral to bridges and locks were not inventoried. Most non-historic small-scale features are associated with the Erie Canalway Trail and parks at locks and terminals and are grouped by type. Non-historic small-scale features were not comprehensively inventoried at the characteristic or feature levels; all features associated with the Erie Canalway Trail (Empire State Trail) have been recently inventoried (GPI Trail Data).

Main Sources: Field observation, Empire State Trail GPI Trail Data, NYSCC Canal Infrastructure Management System (CIMS), historic photographs and postcards,

Barge Canal contract drawings (Plan & Profile site plans), National Historic Landmark documentation.

Feature Examples: Snubbing Posts (Hulberton Dock, Guard Gate 12, Holley Terminal, North Main Street landing, all contributing); Lock E-14 light standards (contributing/non-contributing); Erie Canalway Trail fences (non-contributing).

Evaluation Findings: Small-scale features are character-defining features within historic canal developed areas (locks, terminals, dock walls), but overall, most existing small-scale features are non-historic and associated with public use and recreation that has been introduced since the 1960s. Small-scale features are well inventoried in the Empire State Trail GPI Trail data; historic small-scale features are referenced in the NHL documentation, but are not inventoried in Section 7.

- Land-cut Canal (figure 1.20): Historic small-scale features within the pilot area include snubbing posts (bollards, low type) at terminals and along dock walls and other areas. The snubbing posts at the Brockport terminal were removed and replaced with cleats when the terminal wall was lowered for recreational craft as part of the terminal's conversion to a public park. There were no known light standards at the terminals during the historic period. Overall, small-scale features associated with the Erie Canalway Trail, including railings, fences, bike racks, signs, are inconspicuous and therefore compatible with the historic character of the landscape. Exceptions include features at the Brockport promenade section of the trail, where ornamental benches, trash cans, and bollards detract from the historic utilitarian character of the landscape. Ornamental lights and benches installed by the Village of Holley along the Holley embankment dock wall likewise detract from the historic character of the landscape.
- Canalized River (figure 1.21): Historic small-scale features within the pilot area include snubbing posts (taller type) at the locks and terminals, and



Figure 1.20 (left). Small Scale features, land-cut canal: Culvert markers on the Holley embankment (left) and a snubbing post (low type) at Hulberton, June 2022 (SUNY ESF)

Figure 1.21 (right). Small Scale Features, canalized river: Snubbing posts (tall type) and mast-arm light standard with non-historic luminaire along the approach prism to Lock E-14 looking east, July 2022. (SUNY ESF)

mast-arm style light standards at the locks. Several light standards have been replaced with highway-style standards. Some of the lights retain drop-pendant luminaires, probably dating to the 1950s, while those at Lock E-14 have Cobra-style luminaires installed after the historic period. Pipe railings along the lock chambers were installed beginning in the 1990s as public use increased. This same period saw the addition of rustic split-rail fences that delineated certain areas of the lock grounds and adjacent canal parks, along with picnic tables, barbecues, and signs. At Lock E-13, the recent construction of the Mohawk Valley Welcome Center added light standards in the style of the historic mast-arm type, along with fences, play equipment, benches, interpretive signs, picnic tables, fences, and various canal artifacts including buoys, snubbing posts (used as bollards along the parking lot walks), a Barge Canal vessel (set within a concrete wall resembling the ashlar tow-path era canal walls), and chain-link fences. Some of these small-scale features relate to the history of the Erie Canal but detract from the historic utilitarian character of the Lock E-13 grounds and are removed from their historic context.

Archaeological Sites

Archaeological Sites are the location of ruins, traces, or deposited artifacts in the landscape, and are evidenced by the presence of either surface or subsurface remains.

Inventory Method: Inventoried archaeological sites were limited to visible above-ground remnants not captured under other characteristics (for example, spoils berms were inventoried under Topography). Former tow-path canal alignments fall outside the NHL boundary. Potentially sensitive below-ground Native American archaeological resources were not inventoried (most would be outside the NHL boundary given disturbance from canal construction).

Main Sources: Field observation, Empire State Trail GPI Trail Data (Barge Canal Lands layer), Barge Canal contract drawings (Plan & Profile site plans), National Historic Landmark documentation.

Feature Examples: Abandoned culvert at breach pond north of Holley (unevaluated); Old NY 31 bridge abutments west of Brockport (contributing).

Evaluation Findings: Overall, archaeological sites were not characteristic of the Barge Canal historically, and as a working, maintained waterway today, remain uncharacteristic of the landscape within the NHL boundary. Abandoned canal infrastructure is the only type of archaeological site identified within the pilot areas. There may be underwater archaeological resources in the Mohawk River.

SUMMARY FINDINGS OF CULTURAL LANDSCAPE INVENTORY

Inventory Data—Landscape Characteristics

Overall, the pilot CLI of the Barge Canal National Historic Landmark district documents that the landscape retains much of its historic character as developed through the end of the period of significance in 1963. The canal prism, circulation, buildings and structures, and small-scale features remain largely intact, and within state canal-managed areas such as locks and lift bridges, there remains a consistent visual character (fig. 1.22). Significant change to the historic canal infrastructure has occurred through the replacement of a number of highway truss bridges

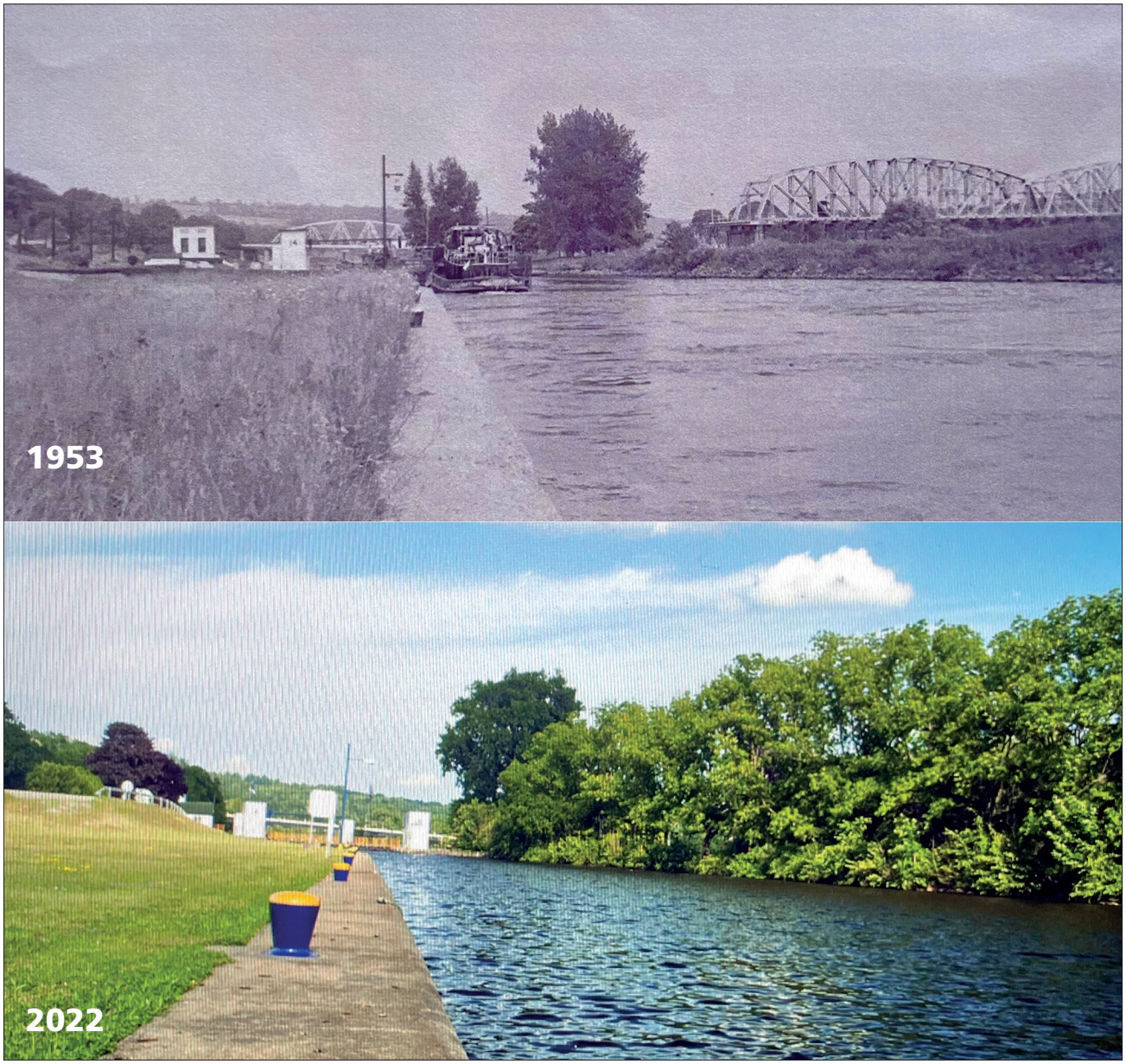


Figure 1.22 Comparison of historic and existing conditions on the Barge Canal looking east along the approach to Lock E-14 at Canajoharie. Top: Historic photograph showing canal infrastructure and open views to dam #10 (right) and NY 10 truss bridge in the left distance, August 15, 1953. Bottom: Current conditions showing retention of canal infrastructure, growth of trees/woods, reduction in views, and loss of the NY 10 truss bridge, July 2022. (Erie Canal Museum, Canal Society of New York - Gayer Collection, negative B682; SUNY ESF)

with girder bridges, and redesign of canal terminal and dock walls for public recreational use. The loss of commercial traffic on the canal has also been a change since the historic period.[3]

The Barge Canal landscape overall remains defined by surrounding land use, natural features, and views. However, some of these aspects of the landscape have undergone substantial change since the historic period within the two pilot areas. This change is due in large part to growth of woods on former farm fields and on canal embankments, which has altered the historic open spatial character of the



Figure 1.23. Comparison of historic and existing conditions on the Barge Canal looking east along the New York State Thruway (built beginning late 1940s) toward the Noses. Top: Historic postcard view showing prominent view of the Noses (Big Nose at left, Little Nose at right), and the canal with buoys and open riverbanks with washwalls, ca. 1955. Bottom: Current view showing growth of woods on the riverbanks that limit historic open space and views, July 2022. (Griffin Paper postcard T.14, "The New York State Thruway The Main Street of The Empire State / Here, East of Canajoharie, The Barge Canal was Relocated to Make Room for the Thruway"; SUNY ESF)

canal and reduced outward views and vistas. Along the Mohawk River, growth of woods along the riverbanks has had a similar effect and also limited views of the canal from major transportation corridors (fig. 1.23). Substantial change has also occurred due to the shift from primarily commercial to primarily recreational use of the canal, including on the water and canalside trail, and in areas permitted for municipal park use (fig. 1.24). These changes in use have led to loss of utilitarian features and the addition of many small-scale features and structures, including pavilions, railings, fences, signs, kiosks, boat launches, and ornamental plantings at locks and along the Erie Canalway Trail. In addition, new suburban development

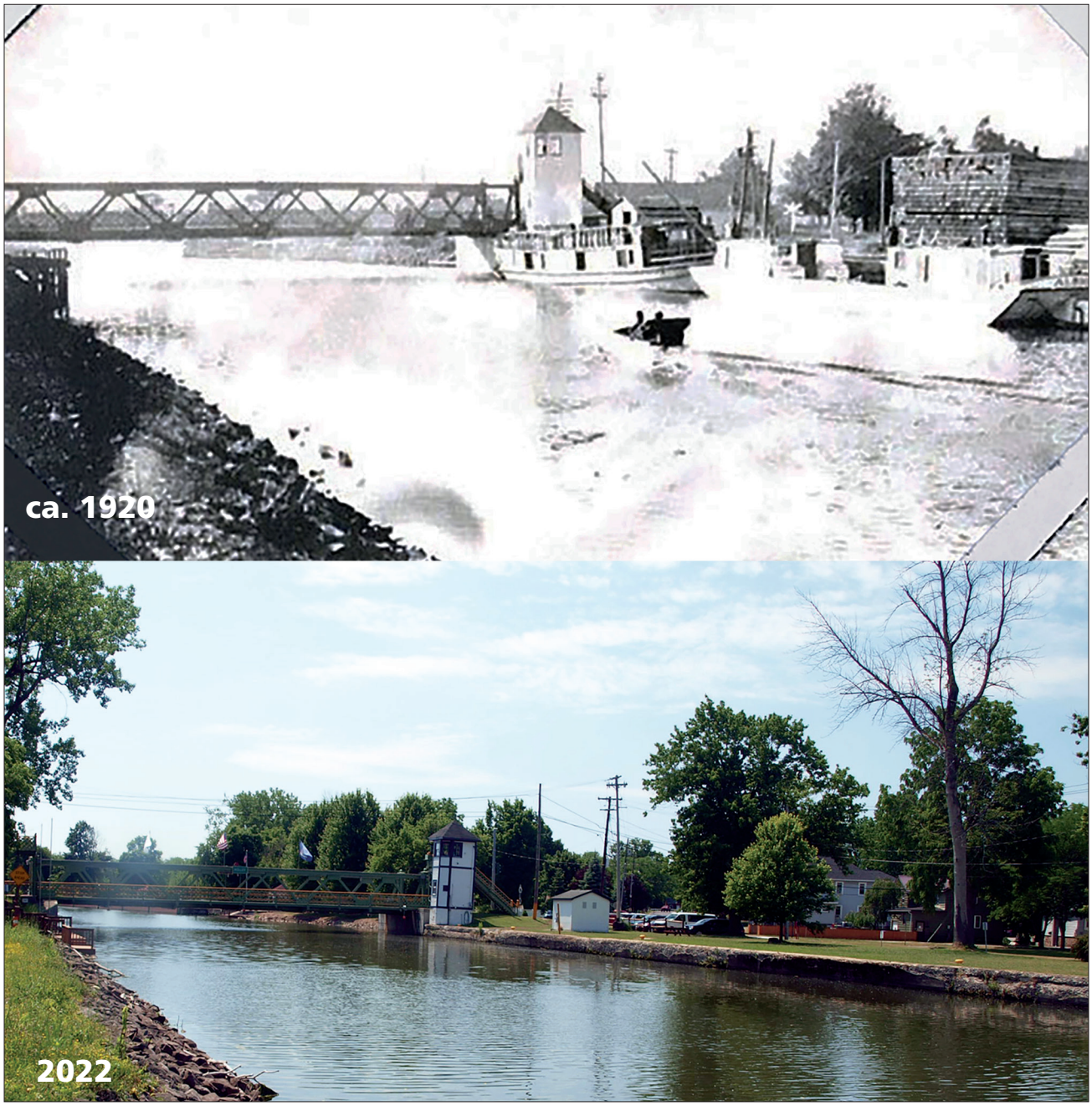


Figure 1.24. Comparison of historic and existing conditions on the Barge Canal looking southeast toward the Holley terminal and lift bridge. Top: Historic postcard view showing lift bridge and working scene at terminal, ca. 1920. Bottom: Current view showing loss of working landscape with conversion of the terminal area to recreational use (public parking and greenspace), June 2022. The utilitarian character of the terminal area persisted throughout the historic period into the 1960s. (Erie Canal Museum, Canal Society of New York State - Madden Collection, Orleans County binder; SUNY ESF)

has changed the character of the Barge Canal landscape in isolated areas, notably on the outskirts of Brockport.

Existing inventories maintained by the NYS Canal Corporation and documented for the National Historic Landmark nomination do not describe characteristics of the overall Barge Canal landscape.

CLI Inventory Data—Landscape Features

Specific findings about feature data generated for the Barge Canal NHL district inventory include:

- The NHL boundary as depicted on the NHL GIS mapping does not encompass all state canal land and in areas appears to omit portions of historic canal resources, such as outer parts of canal embankments and the Hulberton Shops. The NHL boundary is adequate for capturing built canal features, but not for capturing all historic state-owned canal landscape features.[4]
- Most built features (circulation, topography, buildings/structures, constructed water features, small-scale features) are documented in existing NYS Canal Corporation inventories (CIMS/GIS, Erie Canalway Trail/GPI Trail Data).
- The NHL documentation does not inventory individual historic small-scale features, notably snubbing posts and light standards, which are character-defining features of the landscape.
- Non-built historic landscape features are not reflected in NYS Canal Corporation or NHL inventories with some exceptions. These include natural systems, landscape spaces, vegetation, and views/vistas.
- NYS Canal Corporation inventories (CIMS/GIS, Erie Canalway Trail/GPI Trail Data) do not generally capture historic feature-level data and status (contributing/non-contributing). NYS Canal Corporation does maintain GIS data that capture major built resources inventoried in the NHL (locks, powerhouses, bridges, etc.).

CLI Method

Completion of this pilot inventory has demonstrated that the National Park Service's Cultural Landscape Inventory (CLI) method of analysis and evaluation is well adapted to the Barge Canal National Historic Landmark district. The main findings of this pilot inventory in terms of methods are:

- The CLI method is designed as a resource management tool. The CLI therefore provides a sound means of inventorying and evaluating landscape resources under the management of a single agency (New York State Canal Corporation).
- The boundaries of the Barge Canal NHL district, which were drawn to encompass engineered buildings and structures, do not reflect the limits of

the Barge Canal cultural landscape. The district excludes adjacent state canal lands, municipal properties, and private properties that may contribute to the historic character and significance of the Barge Canal, particularly along the land-cut canal in western New York.

- Due to the narrow nature of the NHL district, the character of the Barge Canal cultural landscape is defined in large part by landscape features beyond the boundary of the NHL district. The CLI method captures the character of this landscape through narrative (landscape characteristics) but is not designed to inventory the vast array of properties and landscape features beyond the boundary (NHL district), which are under differing ownership and management. Documenting these adjacent properties requires a survey method, akin to surveys undertaken to document historic properties at a community scale (see following section).
- The boundaries of the Barge Canal NHL historic district were not sufficiently concise in areas, based on available GIS data, to determine if certain landscape features were within the NHL boundary.
- To be accessible to those who manage Barge Canal landscapes, CLI feature data needs to be captured in GIS, and should be integrated with existing NYS Canal Corporation data to ensure all historic resources are addressed, with appropriate historic data (contributing/non-contributing) to ensure historic preservation is taken into account in operations and project management. Due to the limits of scope and expertise for this pilot project, the CLI feature inventory was not completed in GIS. A detailed correlation of inventoried landscape features to NYS Canal Corporation inventory data was not completed.

HISTORIC RESOURCE SURVEY

The Historic Resource Survey (HRS) method was used to describe and evaluate landscapes adjacent to and visible from the Barge Canal— lands that form the historic setting of the National Historic Landmark (NHL) district. These adjacent landscapes are defined for this pilot project as extending outward from the NHL boundary delineated mostly by the canal embankments and boundaries of associated canal facilities such as locks, terminals, and maintenance shops (see figure 1.1).

The HRS method was applied to adjacent landscapes rather than the Cultural Landscape Inventory (CLI) method because of the need to describe overall landscape patterns and character at a community or regional scale, and not details of individual properties or resources for management purposes, with some exceptions. The CLI was developed as a tool for managing landscapes, generally under one or few ownership situations, and therefore is too fine-grained for inventorying canal-adjacent lands given their extent and complexity. The HRS was adapted for this project to capture broad patterns to determine the types of

landscapes that characterize the setting of the Barge Canal; to identify occurrences of each type that may consist of geographic areas, groups of properties, or individual features; and to evaluate whether the occurrences contribute to the historic setting of the Barge Canal. Adjacent lands are not inventoried in the NHL documentation.

Adjacent landscapes within the two pilot areas reflect numerous types and ownership situations not captured under any single existing database. These may consist of state canal property (outside NHL district boundary but associated with Barge Canal operations and former canal alignments), other state lands managed by the Department of Transportation, Department of Environmental Conservation, and the State University of New York; municipal property including streets and parks; and private residential, commercial, and industrial properties. The HRS allows for synthesizing or connecting to existing survey data and generating new data for use by the Erie Canal National Heritage Corridor, New York State Canal Corporation, New York State Historic Preservation Office, other state agencies, municipalities, and private landowners to make informed decisions about land use and development in the setting of the Barge Canal National Historic Landmark district. This data will also assist in review of undertakings in compliance with Section 106 of the National Historic Preservation Act of 1966, Section 14.09 of the New York State Historic Preservation Law, the State Environmental Quality Review Act, and other environmental regulations and planning efforts. When more detailed survey/inventory data is needed to assess the effect of proposed development on the historic character of the Barge Canal, a more detailed CLI could be undertaken for a defined area to supplement the findings of the HRS.

HRS METHOD OVERVIEW

The Historic Resource Survey inventory method is based on guidelines developed for undertaking community surveys to establish historic contexts and identify properties that are eligible for listing in the *National Register of Historic Places*. The HRS method for this project is based largely on guidelines for undertaking a reconnaissance-level (windshield) historic resources survey. The functions of a reconnaissance survey include determining kinds of properties, boundaries of survey area, and general character of the area's buildings, structures, and landscapes. A reconnaissance-level survey generally requires that surveyors have an understanding of the types of resources being surveyed, but usually entails limited research into the history of the survey area.[5]

Due to limits of scope, this pilot project is focusing on inventory of historic adjacent landscapes and evaluating them to determine if they contribute to the historic character of the Barge Canal. Because the HRS guidelines were developed to capture building and district data, this pilot project modified the HRS to

capture landscape data and parallel the structure of the Analysis and Evaluation section of the NPS Cultural Landscape Inventory. [6]

In place of the CLI inventory framework of *landscape characteristics* and associated *landscape features*, this inventory developed a more general framework of *landscape type* and associated *occurrences*. Adjacent landscape types are based on historic conditions and current conditions within each pilot area and build off three landscape context classifications identified in the *Erie Canalway Preservation and Management Plan* (PMP): Settlements – Hamlets, Villages, and Cities; Industrial Landscapes; and Rural Landscapes.[7] The following Adjacent Landscape types identified for this pilot project expand upon and supplement these classifications:

- Outlying State Canal Lands
- Ridge and Valley Wall
- Woodland and Hedgerow
- Waterbody and Wetland
- Agricultural Field and Orchard
- Farmstead and Rural Residential Property
- Hamlet
- Village
- Suburban Residential Area
- Suburban Commercial and Industrial Areas
- Institutional Campus
- Park and Conservation Land
- Transportation Corridor
- Utility Facility
- Archaeological Resource

Occurrences were evaluated to determine whether they contribute to the historic *setting* of the Barge Canal (changes since the end of the NHL period of significance, 1905–1963), in reference the National Register term for the physical context of the NHL district.

HRS RESEARCH AND FIELDWORK

The ESF project team researched methods of inventorying larger areas characterized by urban, rural, and natural resources. These included reconnaissance-level historic resource surveys (HRS) for communities; NPS Cultural Landscape Inventories for linear resources (trail, carriage road, and motor road systems at Acadia National Park); Landcover inventory in the New York State GIS Clearinghouse; and Historic England's *Historic Landscape Characterisation* program, which uses a method of landscape survey that "identifies and describes essential or distinguishing patterns, features and

qualities, or attributes" across a large area. *Characterisation* produces maps that graphically depict areas of distinct character. The project team also took into account how visual aspects of large landscapes are inventoried in the NPS Visual Resource Inventory.[8]

For the Barge Canal, the ESF team inventoried adjacent landscape types and occurrences based on historic significance, physical and contextual relationship to the canal, visibility from the canal, and extent. Not all occurrences of each landscape type may have been captured, especially where concealed by woods. Existence of a potential threat to the canal setting would heighten the need for more survey detail; however, no known development threats were identified in the two pilot areas.

The main sources of information on historic conditions of adjacent landscapes were USGS topographic maps (1947–1960), aerial photographs (1958–1960), Barge Canal construction maps/surveys (1905–1915), New York State Canal Corporation GIS data, Empire State Trail "GPI Trail Data," and databases for historic properties and natural resources that were mapped by the project team in GIS. In addition, *onX* maps, a proprietary GIS-based navigational map for outdoor adventure, was used to provide supplemental data on land ownership and vegetation cover types not readily available in the New York State GIS clearinghouse.[9]

Inventory of adjacent landscapes was primarily an office exercise. Fieldwork generally confirmed findings from office research, but also revealed some new occurrences. Detailed conditions of adjacent landscapes could not be comprehensively ascertained in the field due to limitations of access. The fieldwork for adjacent landscapes was undertaken concurrently with the field work for the CLI of the Barge Canal NHL district. Field notes were captured on print-outs of maps and aerial photographs, and on the "Mile Segment Summary Form," and the "Mile Segment Character-Condition Form" that was also used for the Barge Canal Landscape/NHL district (sample forms in Appendix A).

HRS INVENTORY AND EVALUATION

The inventory and evaluation in the Historic Resource Survey for adjacent landscapes (setting of NHL district) is organized according to adjacent landscape type and includes the following:

1. Definition of adjacent landscape type
2. Summary of inventory method
3. Main sources of information
4. Examples of occurrences

5. Evaluation findings for each pilot area (land-cut canal and canalized river).

Each adjacent landscape type includes two photographs to illustrate representative existing conditions of the adjacent landscape type in each pilot area. An overall summary evaluation of adjacent landscapes is at the end of the section, accompanied by paired historic and existing condition illustrations to graphically depict changes since the historic period.

The overall character of each adjacent landscape type in both pilot areas (parallel to CLI landscape characteristics) is captured in summary narrative format under "Evaluation Findings." An inventory of associated occurrences (parallel to CLI landscape features) is in tables 2.2 and 3.2 (chapters 2 and 3). For each occurrence, the following data were collected:

1. Location (mileage along the canal)
2. Adjacency to the canal (primary or secondary)
3. Visibility from the canal (NHL district)—foreground, midground, or background
4. Other inventory data on the occurrence
5. An evaluation of whether the occurrence contributes to the historic setting of the Barge Canal (contributing, non-contributing, or unevaluated if insufficient information).

Geospatial mapping (in ArcGIS) of adjacent landscape types and occurrences is a key component of this landscape inventory work, but due to the limited scope of this pilot project, this was not completed. A sample map showing how adjacent landscapes could be illustratively mapped within a segment of the land-cut canal at Brockport is included in Appendix C (drawing 2).

Outlying State Canal Land

Outlying state canal land is a state-owned canal property adjacent to and outside the National Historic Landmark district boundary that follows the outer edge of land-cut canal embankments, riverbanks, and canal developed areas such as locks and shops. This adjacent landscape type is inventoried in NYS Canal Corporation GIS data as "Barge Canal Lands" and "Canal Blue Line Lands."[10] Outlying state canal lands include state fee ownership and less-than-fee ownership (rights-of-way and easements). Most are associated with Barge Canal operations or former alignments of the old Erie Canal, and many have historical significance. These lands overlap with other adjacent landscape types, and may include woodlands, agricultural fields, water bodies, suburban residential areas, and archaeological resources.

Inventory Method: Outlying state canal lands were identified in the office by tract and named according to historic or current use, or by canal feature on the tract (such as a borrow pit) evident in historic maps and plans. This landscape type is determined by canal ownership and current or past uses, rather than landscape character.

Main Sources: Empire State Trail GPI Trail Data with Barge Canal and Canal Blue Line lands data (includes abandoned canal lands); Barge Canal contract drawings (Plan & Profile site plans); Communication with Matthew Lengel, NYSCC Director of Asset Management & Inspection.

Examples: Old Erie Canal Tracts, Town of Sweden (contributing); Canal Borrow Pit Tract, West Canal Road, Town of Sweden (contributing); Lock E-13 access from NY 5S tract, Town of Root (non-contributing).

Evaluation Findings: Outlying state canal lands beyond the Barge Canal NHL district boundary are part of the history and contemporary function of the Barge Canal. In most cases, these lands reflect canal ownership and land use, rather than a distinct visual character. Most occurrences are wooded or contain water bodies. They are inventoried in the NYSCC GIS layers, but have limited historic data and do not indicate historic status (eligibility for listing in the National Register of Historic Places). Additional research and inventory are needed to document the complex history and current status of the state canal lands and the landscape resources they contain. This information could inform planning for deaccessioning of state canal lands, which is reviewed by the Canal Recreationway Commission, to determine whether parcels contribute to the historic significance and setting of the Barge Canal and prior Erie Canal alignments.

- Land-cut Canal (fig. 1.25): Between Fancher Road and Sweden Walker Road, the state owns nearly continuous strips of land along both sides of the Barge Canal outside of the NHL boundary. Larger continuous parcels include corridors north and south of the Barge Canal west of Brockport and another at Holley that contain alignments of the old Erie Canal, including portions of the former Holley Loop. A small tract off West Canal Road west of Brockport contains a now wooded and partially watered borrow pit associated with construction of the Barge Canal. The state owns larger tracts west of Hulberton, a breach pond north of Holley, and a portion of East Branch Sandy Creek at Holley. The state also owns easements for flowage (release of water) on approximately sixteen large tracts, which includes flooded quarries west of Hulberton and part of a suburban residential neighborhood in Brockport.
- Canalized River (fig. 1.26): Between St. Johnsville and Lock E-13, the state owns scattered parcels along the Mohawk River bordering the NHL district, some of which appear to be property acquired to deposit spoils from construction of the Barge Canal, or for disposal of ongoing dredge spoils,

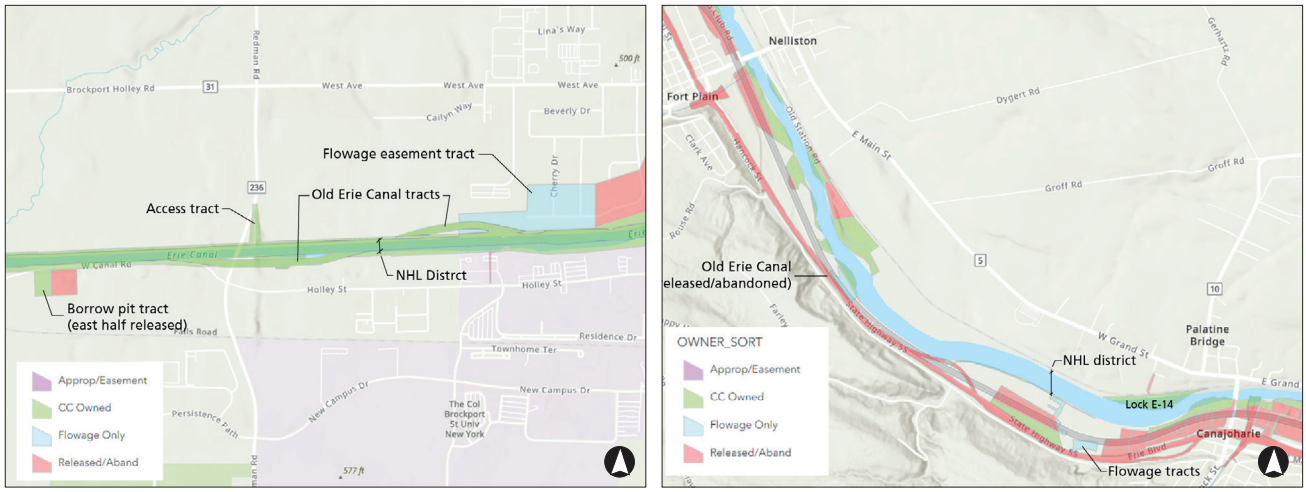


Figure 1.25 (left). Outlying State Canal Lands, land-cut canal: Map of state canal lands west of Brockport. (Barge Canal Lands and Canal Blue Line Lands GIS data, from Erie Canalway Trail GPI Trail Data, annotated by SUNY ESF)
Figure 1.26 (right). Outlying State Canal Lands, canalized river: Map of state canal lands between Fort Plain and Canajoharie. (Barge Canal Lands and Canal Blue Line Lands GIS data, from Erie Canalway Trail GPI Trail Data, annotated by SUNY ESF)

known as Upland Disposal Sites (UDS). The state also owns less-than-fee interest on some tracts for flowage (release of water). Between St. Johnsville and Sand Hill, the state retains ownership of the old alignment of the Erie Canal directly south of the Mohawk River; to the east, the majority of the old alignment is remote from the river and has been abandoned or transferred to other state agency use (much of it is highway NY 5S built prior to 1963.

Ridge and Valley Wall

Ridge and Valley Wall adjacent landscape type refers to natural landforms and landcover that are adjacent to the Barge Canal or visible from the canal.

Inventory Method: This adjacent landscape type was limited to inventory of major landforms visible from the Barge Canal in the Mohawk Valley. Due to lack of detailed viewshed modeling in GIS using LiDAR, office inventory of ridges and valley walls visible from the canal was not possible. Individual landscape types such as woodlots, farms, etc. on ridges and valley walls were not individually inventoried, except where they formed a prominent part of the canal setting.

Main Sources: Field observation, USGS Topographic maps (Randall, 1944); Greene, *Old Mohawk Turnpike Book (1923); New York State Natural Heritage Program/ online conservation guide*.

Examples: Little Nose, Town of Root (contributing); Big Nose, Towns of Mohawk and Palatine (contributing); Montgomery County/MOSA Capped Landfill, Town of Root (non-contributing).

Evaluation Findings: Ridges and Valley Walls are characteristic of canal landscapes in the Mohawk Valley, but their visibility from the Barge Canal is limited to occurrences that are directly adjacent to the canal, or to taller ridges and hills visible across open spaces unobstructed by woods along the canal/riverbanks.

- Land-cut Canal: Not applicable (plateau and rolling landforms).
- Canalized River (figs. 1.27, 1.28): Low wooded ridges north and south of the canal characterize much of the pilot area; many are not conspicuous from the canal due to woods along the riverbanks and flats. Most prominent are the Big Nose (elev. 940') and Little Nose (elev. 654') ridges that form a narrow opening along the Mohawk River and are the lower uplift of the Mohawk Valley (Fall Hill at Little Falls being the upper lift). Big Nose is a limestone-dolostone hill with cover of Northern white cedar, hornbeam, and sugar maple on its vertical cliffs, and an open-canopy woodland on a talus slope. These wooded ridges, which have always been part of the setting of the Barge Canal and its tow-path predecessor, are in private ownership and do not appear to have any conservation protections. The Big Nose is considered a significant occurrence of the calcareous cliff and talus slope community types in New York State. To the east of Little Nose, a county-owned landfill along the valley wall, developed after 1944, capped around 2000, and now maintained as an open field with vents, is visible from the canal.

Woodland and Hedgerow

Woodlands are areas of unmanaged, natural forest cover that extend from the canal. Hedgerows are unmanaged rows of trees or narrow strips of woods adjacent to the canal, usually between the canal corridor and farm fields, flooded quarries, and other adjacent open spaces.

Inventory Method: Woodlands and hedgerows were inventoried if they were directly adjacent to the canal, but they were not separately inventoried or





Figure 1.27 (left). Ridge and Valley Walls, canalized river: Wooded ridge north of the Barge Canal, looking from the site of old Erie Canal Lock 33 east of St. Johnsville, July 2022.
Figure 1.28 (right). Ridge and Valley Walls, canalized river: Little Nose with another ridge in the distance, looking east, July 2022. (SUNY ESF)

evaluated due to lack of individual identity and extent across property lines. Instead, woodlands and hedgerows were each grouped as a single occurrence and were evaluated based on overall changes in extent since the historic period. Some woodlands occur on (overlap with) Outlying State Canal Lands, Ridges and Valley Walls, and Parks and Conservation Areas adjacent landscape types.

Main Sources: Field observation; 1958–1960 aerial photographs; current aerial photographs; *Onx* maps (identification of landcover/tree species); New York Natural Heritage Program/online conservation guide; Matthew Lengel, NYSCC Director of Asset Management & Inspection.

Examples: Woodlands, land-cut pilot area; Riverbank trees (hedgerows), canalized river pilot area.

Evaluation Findings: Throughout both pilot areas, woodlands and hedgerows have greatly expanded in extent since the historic period, and those that have grown up since 1963 have changed the Barge Canal's historic open spatial character and views. However, woodlands in general are compatible since they existed historically along the Barge Canal in both pilot areas, just not to the present extent. Invasive plants, notably Japanese knotweed, are overtaking some woodlands and hedgerows, while dead ash trees characterize many low-lying woods. Additional research and inventory are needed to assess ecological values of woodlands.

- Land-cut Canal (fig. 1.29): The pilot area was historically dominated by open agricultural fields, with scattered farm woodlots near the canal. Larger tracts of deciduous woodlands were along the canal east and west of Hulberton around former quarries and along streams, and along the East Branch of Sandy Creek at Holley south of the canal. Overall woodlands constituted roughly 10% of landscapes adjacent to the canal toward the end of the historic period. Today, outside of urbanized areas, woodlands and hedgerows are the dominant cover of the adjacent lands, forming a nearly continuous wooded border along the canal in the pilot area. Existing woods are dominated by deciduous trees including red maple, cottonwood, black locust, elm, oak, hickory, and black cherry. All are on private or municipally-owned land (parks and conservation areas), or on outlying state canal lands. Some extend into the Barge Canal NHL district, on canal embankments; some of these woods have been removed in recent years.
- Canalized River (fig. 1.30): The pilot area was historically dominated by open agricultural fields and woods on steep hillsides and ridges. Today, outside of scattered open fields and urban development, woods line the riverbanks and some hedgerows border adjacent agricultural fields on the river flats east of Canajoharie. These woods enclose the canal in most of the pilot area but allow for views of tall ridges in the distance. Woodlands and hedgerows are dominated by deciduous trees including red and sugar maple, cottonwood, hophornbeam, basswood, swamp white oak, shagbark hickory, black willow,





Figure 1.29 (left). Woodlands and Hedgerows, land-cut canal: Drone view west of Brockport, June 2022. (Todd Lippa, NYS Canal Corporation)
Figure 1.30 (right). Woodlands and Hedgerows, canalized river: Woodlands and hedgerows bordering the Barge Canal/Mohawk River east of Canajoharie, looking east, July 2022. (SUNY ESF)

hemlock, and American basswood. Most of these woods are on private or municipal land, or on outlying state canal lands. The NYSCC does not clear trees from the canal/riverbanks as it does on the land-cut canal embankments.

Waterbody and Wetland

Waterbody and Wetland adjacent landscape type include ponds, streams, waterfalls, marshes, and swamps.

Inventory Method: Occurrences were inventoried if they were adjacent or visible from the Barge Canal. In instances where several water bodies were in proximity and of similar origin, they were inventoried as a group; others were inventoried individually. Waterbodies and wetlands were evaluated by location and changes in overall extent since the historic period. Flooded quarries could also be documented under Archaeological Resources.

Main Sources: Field observation, *onX* maps, 1944 USGS Holley quadrangle map; 1958-1960 aerial photographs, Empire State Trail GPI Trail Data with Barge Canal and Canal Blue Line lands data (includes abandoned canal lands); Barge Canal contract drawings (Plan & Profile site plans); USFWS National Wetlands Inventory; Matthew Lengel, NYSCC Director of Asset Management & Inspection.

Examples: Flooded quarries, Town of Murray (contributing); Swamp west of Groth Road, Town of Murray (unevaluated); Flat Creek, Town of Root (contributing).

Evaluation Findings: Waterbodies and wetlands are found throughout both pilot areas and contribute to the historic low-lying character of many of the lands adjacent to the Barge Canal. Although some waterbodies and wetlands post-date the historic period, they are historically characteristic types of adjacent





Figure 1.31 (left). Waterbody and Wetlands, land-cut canal: Large swamp west of Groth Road looking south from the Barge Canal, June 2022. (SUNY ESF)

Figure 1.32 (right). Waterbodies and Wetlands, canalized river: The mouth of Flat Creek near Sprakers looking south from the Barge Canal, June 2022. The Mohawk call the mouth of this creek *Utlogowanke.* (SUNY ESF)

landscapes. They may have important ecological values that support heron, eagles, and native aquatic species, and many are classified on the US Fish and Wildlife Service National Wetlands Inventory. Additional research is needed to evaluate the ecological value of these adjacent landscapes.

- Land-cut Canal (fig. 1.29): Waterbodies that existed adjacent to the pilot area during the historic period included flooded quarries near Hulberton, the East Branch of Sandy Creek, and a large pond that formed by the 1940s due to failure of a canal embankment north of Holley. Many minor creeks cross the canal but are not visible from the canal due to woods and other vegetation. Since 1963, additional quarries in the Hulberton area have filled with water, and wetlands have formed or expanded adjacent to the canal, such as west of Groth Road, possibly due to seepage through the canal embankments.
- Canalized River (fig. 1.30): There are no substantial occurrences visible from the Barge Canal except for the mouths of streams and few wetlands. Within the pilot area, there are ten creeks that empty into the canal, which is the basin for the Mohawk Valley watershed. There appears to be few changes to waterbodies and wetlands on adjacent lands since the historic period.

Agricultural Field and Orchard

Agricultural Field and Orchard adjacent landscapes consist of farmland, including cropland, pasture, and fruit trees.

Inventory Method: Given their importance to the historic setting of the Barge Canal, farm fields were inventoried individually by current property ownership and location (listed by municipality, location north or south of canal, and street address of farm). Fields inventoried as primary adjacent were open to the canal or separated by a hedgerow that may block views or allow filtered views from the canal. Secondary adjacent fields were at a greater distance from the canal and separated by a wider border of woods. Evaluation of individual farm fields was

made by determining change in extent or overall character (such as change from orchard to cropland) since the historic period.

Main Sources: Field observation, *onX* maps (ownership), 1958–1960 aerial photographs; Monroe Country "Western Agricultural District #5 Report," 2016; "Orleans County Consolidated Agricultural District No. 1" report, ca. 2016; Montgomery County Agricultural Districts map, 2018; NYS Department of Agriculture and Markets.

Examples: Oliver-Vendetti Farm Fields, 3406 Fancher Road, Town of Murray (contributing); Hosletter Farm Field, 7024 NY 5, East Fort Plain (contributing).

Evaluation Findings: Agricultural fields are character-defining parts of the rural landscapes along the Barge Canal and are central to its spatial character and outward views. Since the end of the historic period, farm fields have become far less visually prominent from the canal. Some of the farm fields are within state-certified agricultural districts, which afford incentives for continued agricultural use, but do not prevent non-farm development. Monroe and Montgomery counties have farmland protection planning grant programs; Orleans County does not (as of 2016). Additional research is needed to determine if specific parcels have farmland preservation provisions.

- Land-cut Canal (fig. 1.31): Most of the canal during the historic period was bordered by farm fields dotted by orchards. Today, many fields have converted to woods, most of the orchards have disappeared, and nearly all fields are separated from the canal by woodlands or screened by hedgerows. Only one large field within the pilot area is open to the canal (Piedmonte). Some fields, notably north of Holley and near Brockport, have been lost to suburban development. The loss of open fields has dramatically changed the historic rural character of the Barge Canal, converting it into an enclosed corridor and nearly eliminating expansive external views. Some agricultural fields adjacent to the canal are within Monroe County Western Agricultural District #5, and Orleans County Consolidated Agricultural District No. 1.
- Canalized River (fig. 1.32): The pilot area was historically characterized by fields on the river flats that were largely open to the canal. Today, while many farm fields remain on the river flats, most are screened from the Barge Canal by woods along the riverbanks, which have ecological value. Only a few fields open directly to the canal. Loss of visible open fields has created a more enclosed and less scenic character to the Barge Canal. Agricultural fields adjacent to the canal fall under three Montgomery County agricultural districts.

Farmstead and Rural Residential Property

Farmsteads are groups of farm buildings and associated grounds, and rural residential properties are houses in rural areas, some of which may have been part





Figure 1.33 (left). Agricultural Fields and Orchards, land-cut canal: Aerial drone view showing Vendetti and Germeo farm fields south of the Barge Canal looking west toward Fancher Road, June 2022. Note bands of woods that separate the fields from the canal. At right are flooded quarries (see Waterbody and Wetland). (Todd Lippa, NYS Canal Corporation)
Figure 1.34 (right). Agricultural Fields and Orchards, canalized river: A farm field east of Fort Plain that is partly open to the south bank of the canal, looking south, July 2022. (SUNY ESF)

of a farm. This landscape type does not include houses and other buildings within hamlets.

Inventory Method: Adjacent farmsteads and rural houses that appeared to date to the historic period (pre-1960) and are visible from the canal, or were visible historically, were individually inventoried, or grouped where they were clustered around a canal crossroads. Inventoried occurrences were organized by municipality (MCD). Non-historic suburban houses were addressed under the Suburban Residential adjacent landscape type. The historic integrity of individual buildings was not evaluated in detail.

Main Sources: Field observation; 1958-1960 aerial photographs; Barge Canal contract drawings (Plan & Profile site plans); *onX* maps; NY CRIS (SHPO survey and National Register data).

Examples: Fancher Road Canal Crossroads (3403, 3408, 3380 Fancher Road), Town of Murray (contributing); Miner-Noble Farmstead, 1162 West Avenue, Town of Sweden (contributing); Cramer Farmhouse, 6532 NY 5, Town of Palatine (contributing).

Evaluation Findings*:* Farmsteads and rural residential properties characterize rural areas of the pilot areas, but mainly in the land-cut canal. A few have been surveyed and evaluated for historic significance, but most have not.

- Land-cut Canal (fig. 1.35): Farmsteads and rural residential properties from the historic period are clustered around the Fancher Road bridge (including one that is National Register eligible), along West Canal Road near Hulberton, and along West Canal Road in the Town of Sweden where there has been suburban residential development and growth of woods that have blocked





Figure 1.35 (left). Farmstead and Rural Residential Property, land-cut canal: Miner-Noble farmstead, 8537 West Canal Road, Town of Sweden looking north, June 2022. (SUNY ESF)
Figure 1.36 (right). Farmstead and Rural Residential Property, canalized river: Lasher house and barn (right) and Cramer farmhouse (left) on hillside above Barge Canal, looking northeast from canal park at Lock E-15, July 2022. (SUNY ESF)

views of the houses from the Barge Canal. The most prominent farmstead in the pilot area is the Miner-Noble farmstead, which faces the canal on West Avenue (old Route 31). It has lost its associated farm fields. A late 19th/early 20th century house that faces the canal on West Canal Road in the Town of Murray, possibly associated with nearby quarries, forms a focal point at a bend in the canal.

- Canalized River (fig. 1.36): Because most farm development in the Mohawk Valley occurred prior to construction of the Barge Canal, and due to the river and inhospitable conditions near the riverbanks, there are no primary adjacent farmsteads or rural residential properties, but some are visible on hillsides more distant from the canal, such as near the St. Johnsville Terminal and Lock E-15. National Register-listed Fort Klock, an 18th-century stone house and National Historic Landmark, is across the railroad from the canal banks east of St. Johnsville. It is screened by narrow bands of woods. Woods screen most farmsteads and rural residential properties.

Hamlet

Hamlets are small, compact, unincorporated canal-side communities, often clustered around a canal crossing.

Inventory Method: Hamlets were inventoried by individual houses/properties, streets, and other features adjacent to and visible from the canal. Individual occurrences were inventoried as primary adjacent if the property abuts the canal, and secondary adjacent if separated by a street. Features that do not face the canal were not inventoried, nor were minor landscape features such as trees and fences.

Main Sources: Field observation; 1958-1960 aerial photographs; Barge Canal contract drawings (Plan & Profile site plans); *Landmarks of Orleans County*, 1894,

cited in Wikipedia, s.V. "Hulberton;" *onX* maps; NY CRIS (SHPO survey and National Register data*)*.

Examples: Hulberton, with twelve individual features/properties, including Canal Road, Hulberton Road, House at 3383 Hulberton Road, Former Store at 3383 Hulberton Road (contributing).

Evaluation Findings: Hamlets, which developed at crossings along the old Erie Canal, remain prominent in the setting of the Barge Canal, but only in the land-cut pilot area.

- Land-cut Canal (figs. 1.37,1.38): Hulberton, the only hamlet in the pilot area, contributes to the historic setting of the Barge Canal. It consists of a cluster of closely-spaced residential, commercial, and industrial buildings that developed along the Erie Canal following its opening in the 1820s. When construction of the Barge Canal was underway in the 1910s, Hulberton consisted of approximately thirty houses and shops clustered around the canal crossing. The main economic activity was the nearby quarries belonging to the Orleans County Quarry Co. and Orleans Sandstone Co. Several houses and other buildings were removed from the south bank for construction of the Barge Canal. State canals developed a dock wall at Hulberton, and at some point after 1910, a maintenance shop area on the south bank of the canal. While some of the buildings from the historic period have been lost and many have had their architectural details altered, overall Hulberton continues to convey the historic characteristics of a small canal crossroads community. SHPO survey data includes only one property in Hulberton, which was determined not eligible for listing in the State and National registers, but without consideration of district eligibility.
- Canalized River: No hamlets are adjacent to the canalized Mohawk River. Sprakers, and Randall, two hamlets south of the river along the alignment of





Figure 1.37 (left). Hamlet, land-cut canal: Hulberton, aerial drone view looking east, June 2022. (Todd Lippa, NYS Canal Corporation)
Figure 1.38 (right). Hamlet, land-cut canal: Hulberton looking east from the Erie Canalway Trail, June 2022 (SUNY ESF).

the old Erie Canal (now NY 5S), are not visible from the Barge Canal due to woods and banks along the canal.

Village

Village is defined as a small to mid-sized urban community adjacent to the Barge Canal, generally with one or more canal crossings. Villages, which may be incorporated, encompass multiple property types including industrial, commercial, institutional, and residential.

Inventory Method: Villages were inventoried by the limits of their walkable urban area; car-based and mostly post-historic suburban development within village limits was inventoried under suburban adjacent landscape types. The inventory was limited to historic districts listed or eligible for listing in the State and National Registers of Historic Places, or under a local ordinance. Especially prominent historic canalside buildings within these districts were called out. Individual designated historic properties and unsurveyed/evaluated buildings, streets, and other features adjacent to the canal that dated to the historic period of the Barge Canal were also individually inventoried. Village does not include a comprehensive list of individual properties adjacent to the Barge Canal.

Main Sources: Field observation; 1958-1960 aerial photographs; Barge Canal contract drawings (Plan & Profile site plans); *onX m*aps; NY CRIS (SHPO survey and National Register data); Villages of Brockport, Holley, Fort Plain, Canajoharie, and Palatine Bridge websites; U.S. Decennial Census.

Examples: Main Street Historic District, Village of Brockport, notably 5 Main Street (contributing); 5 Park Avenue, Village of Brockport (contributing); Canajoharie Historic District, notably 75 and 101 Erie Blvd., 688 Church Street, 56 Montgomery Street (contributing).

Evaluation Findings: Because villages developed along the old Erie Canal, they are immediately adjacent to the land-cut canal but are set back along the canalized river that abandoned the old canal alignment. Growth of villages in both areas was related to the old Erie Canal and not to the Barge Canal. Despite this, villages contribute to the historic setting of the Barge Canal in both pilot areas, and include historic industrial, commercial, residential, and institutional buildings.

- Land-cut Canal (fig. 1.39): The pilot area contains two villages: Brockport, laid out by land speculators in 1822 while the Erie Canal was under construction, and Holley, settled in 1812 prior to construction of the Erie Canal. Holley was partly bypassed when the Erie Canal was realigned in 1854. The Village of Brockport remains a prominent historic urban area along the Barge Canal, with local and State/National Register-listed or eligible historic districts and individual historic properties adjacent to the Barge Canal. The village has a historic preservation ordinance that regulates changes to designated





Figure 1.39 (left). Village, land-cut canal: Main Street Historic District in the Village of Brockport looking southeast, June 2022. The three-story Italianate-style building at left is #5 Main Street. (SUNY ESF)

Figure 1.40 (right). Village, canalized river: Rooftops and steeples of Canajoharie looking south across the Barge Canal from Lock E-14 canal park, July 2022. The yellow-brick chimney and white building at left is at the former Beech-Nut factory that was demolished in 2024. (SUNY ESF)

properties, including the Main Street Historic District (Brockport is a Certified Local Government). The center of Holley contains a State/National Register historic district not visible from the canal along a former canal alignment. A late 19th/early 20th-century residential neighborhood adjacent to the Barge Canal has not been surveyed but contributes to the village setting of the canal. Holley does not have a historic preservation ordinance.

- Canalized River (fig. 1.40): Villages that border the pilot area include Palatine Bridge settled in 1732, Fort Plain settled in 1778, and Canajoharie settled in 1788; Nelliston and St. Johnsville developed later. All grew following construction of the Erie Canal, with the larger and more industrialized villages south of the river along the Erie Canal. The villages were set back from the Mohawk River due to topography and risk of flooding, but many houses, especially on the north bank in Nelliston and Palatine Bridge featured cupolas that looked out over the river and Mohawk Valley. With realignment of the canal to the Mohawk River, the Barge Canal become remote from the center of Fort Plain and Canajoharie. The villages remained part of the setting of the Barge Canal, forming a backdrop of steeples, factories, and houses with cupolas. Canajoharie and St. Johnsville were linked to the Barge Canal by terminals. Today, this setting remains largely intact, with little substantial new development visible from the canal. Barge Canal-era private warehouses and the railroad reflect the historic commercial use of the St. Johnsville terminal, while Canajoharie's terminal was separated from village industries by construction of the Thruway during the historic period. Some village landmarks, such as the train station along the north bank in Palatine Bridge, have been lost, while the historic Beech-Nut factory and office building at Canajoharie, which were visible from the Barge Canal, were demolished in 2024. Most of Canajoharie is a State/National Register-listed historic district, and the cores of St. Johnsville, Nelliston, Fort Plain, and Palatine Bridge are

also State/National Register listed. None of the villages have local historic preservation laws or ordinances.

Suburban Residential Area

Suburban residential areas are characterized by automobile-based low-density single-family residential development or garden apartment complexes in strips along roads or in multiple-lot developments adjacent to or outside of canal-era urban areas (hamlet, village, city).

Inventory Method: Suburban residential areas were inventoried by broad areas rather than individual properties, generally by street with addresses and listed by municipality. Areas that back up to the canal were inventoried as primary adjacent, while those visible but across a street or set back from the canal across open land were inventoried as secondary adjacent. Occurrences were evaluated based on their existence during the historic period.

Main Sources: Field observation; 1958–1960 aerial photographs; *onX* maps.

Examples: Evergreen Road (#175-247), Village of Brockport (non-contributing); West Canal Road (#8023-8724), Town of Sweden (non-contributing).

Evaluation Findings: Suburban residential areas generally do not contribute to the historic setting of the Barge Canal and represent a shift away from compact urban areas interspersed by rural lands that characterized the canal setting historically. Since 1963, low-density suburban residential development has been the dominant new land use along the Barge Canal, coinciding with decline of agriculture, decline of historic urban centers, and expansion of highways. This development has no known connection to the Barge Canal aside from contemporary recreational uses.

- Land-cut Canal (figs. 1.41, 1.42): Suburban residential subdivisions and garden apartment complexes extend from the historic core of Brockport, driven by the growth of SUNY Brockport in the late 1960s and more recently by the extension of the NY 531 limited-access highway from Rochester. A smaller strip has developed along North Main Street north of Holley. Recent clearing of woods from canal embankments around Brockport and Holley has opened views of some suburban neighborhoods. Ongoing development on former farmland northeast of Brockport is visible from the canal due to lack of trees, elevated land, and proximity.
- Canalized River: There are no suburban residential areas adjacent to the Mohawk River in the pilot area. More distant areas of strip suburban residential development are screened from the canal by woods and banks along the river.





Figure 1.41 (left). Suburban Residential Area, land-cut canal: Established suburban residential area along Evergreen Road in Brockport, aerial drone view looking east, June 2022 (Todd Lippa, NYS Canal Corporation)
Figure 1.42 (right). Suburban Residential Area, land-cut canal: Ongoing suburban residential development on former farm fields in the Havenwood Drive area east of Brockport, 2022. (USDA aerial photograph, Google Maps)

Suburban Commercial and Industrial Area

Suburban commercial and industrial areas are defined as automobile-based non-residential development on the outskirts of urban areas and generally characterized by single-story buildings, parking lots, and grounds. Earlier urban industrial properties, including those dating to the old Erie Canal, are part of Hamlet and Village adjacent landscape types.

Inventory Method: Suburban commercial and industrial areas were inventoried by individual property and not by individual buildings. Areas that back up to the canal were inventoried as primary adjacent, while those visible but across a street or set back from the canal were inventoried as secondary adjacent. Occurrences were evaluated based on their existence during the historic period.

Main Sources: Field observation; 1958–1960 aerial photographs; *onX* maps; Samuel T. Pees, Oil History," http://www.petroleumhistory.org /OilHistory/pages/barges/bargecanal.html.

Examples: Hometowne Energy, 400 Holley Street, Brockport (contributing); East Brockport Industrial Park (non-contributing); Longhorn Trucking Company, 6605 NY 5, Nelliston (non-contributing).

Evaluation Findings: Most suburban commercial and industrial areas were developed after the NHL period of significance, but some may reflect the waning commercial uses of the Barge Canal in the 1950s and 1960s, primarily for shipment of heating oil and kerosene. Oil tank facilities were developed on the outskirts of larger canal communities during that time.

- Land-cut Canal (fig. 1.43): At Brockport, an oil facility (present Hometown Energy) was developed on Holley Street west of the village limits by 1959,



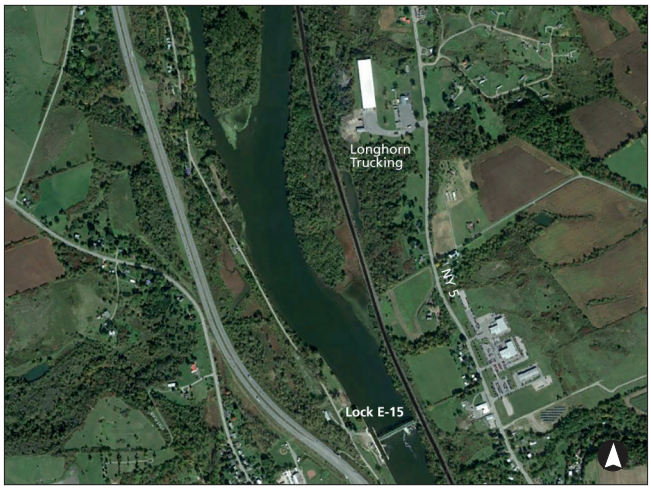


Figure 1.43 (left). Suburban Commercial and Industrial Areas, land-cut canal: Hometowne Energy (fuel oil depot) west of Brockport, looking southeast from the Barge Canal, June 2022. (SUNY ESF)
Figure 1.44 (right). Suburban Commercial and Industrial Areas, canalized river: Aerial photograph of commercial strip development along NY 5 north of Nelliston and a large truck terminal visible from Lock E-15, 2020. (Google Earth, CNES aerial, annotated by SUNY ESF)

and included three large fuel oil tanks and frontage on the Barge Canal. These tanks along with dockage have been removed, most likely coinciding with end of fuel oil shipments on the Barge Canal by the 1980s, but the buildings remain. East of Brockport, the former Brockport Fair Grounds were redeveloped as an industrial park after 1960, with large single-floor manufacturing facilities within view of the Barge Canal, but without any physical or functional connection to it.

- Canalized River (fig. 1.44): Woods and topography screen most suburban commercial and industrial areas from the Barge Canal, including a shopping mall and McDonald's restaurant at NY 10 and NY 5 in Palatine Bridge. There is commercial sprawl along NY 5 north/west of Nelliston, but it is mostly screened from the Barge Canal due to woods and topography. A very large truck terminal and repair shop (Longhorn Trucking) along NY 5 west of Nelliston built around 2005 is visible from Lock E-15 due to its location on a ridge above the canal. These developments have no connection to the Barge Canal.

Institutional Campus

- Institutional campus is defined as a large, maintained landscape with multiple buildings used by a school, government agency, or other institution.

Inventory Method: Occurrences were inventoried by individual campus; features within the campus (buildings, parking lots, plantings, etc.) were not individually inventoried, unless visually prominent from the canal or of historic importance. Occurrences were evaluated based on their existence during the historic period.

Main Sources: Field observation; 1958–1960 aerial photographs; *onX* maps; NY CRIS (SHPO survey and National Register data); SUNY Brockport website.

Examples: SUNY Brockport (non-contributing); Burlingame House (President's House), 230 Holley Street (non-contributing/not visible).

Evaluation Findings*:* Institutional campuses are isolated occurrences. There is one occurrence in the pilot area west of Brockport, and it post-dates the historic period.

- Land-cut Canal (fig. 1.45, 1.46): Brockport has had an institution of higher learning since 1835, but during the Barge Canal's period of significance, its campus was not adjacent to it. One 19th-century property, the current President's House that faces away from the canal on Holley Street, is adjacent to the canal, but not visible due to fences and trees. The campus as a whole has not been evaluated for National Register eligibility. The existing high-rise residence halls, library, and other buildings were developed during the college's peak growth in the late 1960s, and therefore do not contribute to the historic setting of the canal. The campus was not designed in relation to the Barge Canal. Buildings near the canal face away from it, and the parking lots, utility areas, and power lines line its banks. Today, however, there is increased campus activity along the canal and a new pedestrian crossing adjacent to Guard Gate 12 was opened in 2025.
- Canalized River: There are no institutional campuses adjacent to the Barge Canal in the pilot area.

Park and Conservation Land

Parks and conservation lands consist of natural areas, maintained landscapes, and recreational facilities adjacent to or related to the Barge Canal.

Inventory Method: Occurrences were inventoried by site or tract. This landscape type is defined by use and ownership, and may overlap with Outlying State Canal





Figure 1.45 (left). Institutional Campus, land-cut canal: Aerial photograph of SUNY Brockport looking east, June 2022 (Todd Lippa, NYS Canal Corporation)

Figure 1.46 (right). Institutional Campus,land-cut canal: SUNY Brockport buildings and facilities adjacent to the canal banks looking east toward Guard Gate #12, June 2022. Since this photograph, a pedestrian bridge has been built next to the guard gate. (SUNY ESF)

Land, Woodland and Hedgerow, and Waterbody and Wetland adjacent landscape types.

Main Sources: Field observation, 1958-1960 aerial photographs, *onX* maps, Empire State Trail GPI Trail Data; Todd Lippa, NYS Canal Corporation.

Examples: Holley Canal Park (non-contributing); Corbett Park, Brockport (non-contributing); Fort Klock conservation land, Town of St. Johnsville (contributing, former state canal land)

Evaluation Findings: Parks and conservation lands, which have been developed mostly since use of the canal shifted from commercial to recreational uses after the historic period, generally contribute to the historic setting of the Barge Canal by conserving historic open space, historic sites, and undeveloped land. The shift to recreational use began in the 1970s when the NYS Canal Recreation Development Plan expressed the preliminary concept for today's Erie Canalway Trail, and more so after the NYS Canal Recreationway Commission was created in 1991. Most parks and conservation areas are a mix of developed areas (maintained landscape) and unmanaged wooded areas. Most of the developed park areas, some of which extend onto permitted canal lands and the National Historic Landmark district including former terminal and dock areas, contain ornamental buildings, lighting, plantings, and other features that overall are not compatible with the historic utilitarian character of the Barge Canal.

- Land-cut Canal (fig. 1.47): The first municipal park along the canal was around Holley Falls and the old alignment of the Erie Canal that the village developed as Holley Canal Park beginning in 1985 (partly within NHL boundary). It received state funds to build trails, a boardwalk, pond with a fountain, playground, gazebo, and restrooms between 1997 and 2002. The park development partially covered the old canal alignment and spillway. At Brockport, the village developed land at and adjacent to the Barge Canal terminal as the Harvester Park and Brockport Welcome Center in 2005, based on its 1998 "Canalfront Master Plan." The park development included a building, ornamental lights, plantings, and pavement (partly on state permitted canal land, extends into NHL boundary). Non-canal related parks and conservation areas adjacent to the canal were also created after 1963, generally small neighborhood parks in Brockport's suburban neighborhoods, along with a town park west of Brockport (Sans Souci). There are no state or municipal conservation lands (wildlife management areas, etc.) in the pilot area.
- Canalized River (fig. 1.48): Unlike the land-cut canal, the canalized river has a longer history of recreational use, but canal-related parks and conservation lands still post-date the historic period, except for the St. Johnsville Municipal Marina. It was established in 1956 and is on the former Barge Canal terminal (state permitted canal lands) partly within the NHL boundary. Canajoharie's





Figure 1.47 (left). Park and Conservation Land, land-cut canal: Holley Canal Park that extends to the Barge Canal concrete dock wall that is partly concealed by wood facing, looking southwest, June 2022. (SUNY ESF)
Figure 1.48 (right). Park and Conservation Land, canalized river: Canajoharie's Riverfront Park looking southwest across the former Barge Canal terminal area from the canal wall with the park pavilion and the Thruway in the background, July 2022. (SUNY ESF)

Riverfront Park built between 1997 and 2005 is also on a former Barge Canal terminal (permitted state canal lands) and extends into the NHL boundary. The Thruway Authority's Mohawk Welcome Center likewise extends into the NHL boundary at Lock E-13, but on land that was released from canal ownership. There are no state or municipal conservation lands (wildlife management areas, etc.) in the pilot area. Privately-owned conservation areas include a strip of former canal land conserved by Fort Klock Historic Restoration (see Farmstead and Rural Residential). The Noses, which are scenic landmarks and contain sensitive ecological communities, are privately owned.

Transportation Corridor

The transportation corridor adjacent landscape type consists of roads, railroads, trails, and other circulation systems.

Inventory Method: Inventoried occurrences are those that are substantially adjacent, run parallel to, or are visible from the Barge Canal, in all or part. Roads that cross the Barge Canal are not included but are captured through their bridges that are inventoried under Buildings and Structures (Barge Canal NHL district inventory).

Main Sources: Field observation, historic USGS maps, 1958-1960 aerial photographs, *onX* maps; Greene, The Old Mohawk Turnpike Book, 1924.

Examples: State Street-East Canal Road, Village of Brockport and Town of Sweden (contributing); CSX Railroad, Montgomery County (contributing); New York State Thruway, Montgomery County (contributing).

Evaluation Findings: The Erie Canal followed the most level route across New York State along the general route of Haudenosaunee trails and European colonial roads that predated it, and was later paralleled by local roads, railroads, and highways. All existing adjacent transportation corridors date to the NHL period of significance for the Barge Canal, and are therefore part of the historic setting, except for newer roads and crossings introduced since the 1960s.

- Land-cut Canal (fig. 1.49): For most of the pilot area, there are no major adjacent transportation corridors, except for some state highway crossings. Because the Barge Canal follows the alignment of the tow-path Erie Canal, transportation corridors adjacent to it are primarily secondary roads that link communities. These include aptly named "Canal Roads" that run immediately adjacent to the canal east and west of Brockport, and west of Hulberton. Major transportation corridors, including railroads in the 19th century and arterial highways in the 20th century (NY 31) were built a distance from the canal because there was no physiographic limitation due to the largely level landforms of the region, with the mor recent realignment and widening of NY 31 across the canal west of Brockport.
- Canalized River (fig. 1.50): Because the Mohawk River forms the only water-level passage through the Appalachian Plateau in the Northeast, it has been an important transportation corridor for centuries and has been called the "Gateway of America" (Greene, 1924). The narrow valley floor from the Noses to near Little Falls made it a funnel for turnpikes and railroads built in the 19th century. CSX Railroad (former New York Central Railroad), which handles freight and Amtrak passenger service, is directly adjacent to the north bank of the river in about half of the pilot area and elsewhere is separated by woodlands or agricultural fields on river flats. The tracks of the New York Central south of the Mohawk River were removed beginning in the 1960s and portions are now part of the Erie Canalway (Empire State) Trail. The New York State Thruway (I-90), opened through the Mohawk Valley in 1954, borders the south side of the river from Lock E-13 to just beyond Fort Plain,





Figure 1.49 (left). Transportation Corridor, land-cut canal: Canal Road in Hulberton, aerial drone view looking northeast, June 2022 (Todd Lippa, NYS Canal Corporation)

Figure 1.50 (right). Transportation Corridor, canalized river: Freight train on CSX line looking west from the west dock wall at Lock E-14, July 2022. (SUNY ESF)

but is separated in some places by woodlands that have grown up since the NHL period of significance. NY 5 north of the river, and NY 5S that is partly on the alignment of the old Erie Canal, are not conspicuous from the Barge Canal, except around the Noses. The railroad and Thruway, along with some secondary roads contribute to the Barge Canal's historic setting and reflect a similar transportation context.

Utility Facility

Utility facility adjacent landscapes are characterized by water, sewer, power, telecommunications, and other public or private utilities that may be individual sites or corridors.

Inventory Method: Inventoried occurrences were limited to utilities visible from the canal, which may cross it or run parallel to it, often along adjacent transportation corridors. Tall utility structures such as cell towers may not be directly adjacent but are visible from the canal.

Main Sources: Field observation, 1958-1960 aerial photographs, *onX* maps; Encyclopedia.com, s.V. "Niagara Mohawk Power Corporation."

Examples: National Grid 100/161 kV Transmission Line Crossing, Monroe-Orleans County line (non-contributing); Cell Tower, Holley Fireman's Park (non-contributing); Montgomery County Sewer Treatment Plant, Village of Canajoharie (non-contributing).

Evaluation Findings*:* Utility sites and corridors from the NHL period of significance generally contribute to the historic, utilitarian character of the Barge Canal. Increased development and need for electrical power, along with new communications technology, has led to new utility facilities that are incompatible due to their scale and alteration of the canal's historic setting.

- Land-cut Canal (fig. 1.51): Overhead power lines on wood poles along West Canal Road near Hulberton most likely date to the historic period and are compatible with the utilitarian character of the canal. Large-scale utility facilities developed after the historic period, including a high-voltage power transmission line that crosses the Barge Canal west of Brockport, a cell tower north of Holley in one of the few farm fields open to the canal, and a cell tower at Holley designed to look like an enormous flagpole, are visible from the canal. They are not compatible with the historic setting due to their scale and design.
- Canalized River (fig. 1.52): The Mohawk River was tapped as a source of electrical power generation beginning in the 1920s. To carry this power, high-voltage transmission lines on steel catenary structures were erected on lands adjacent to the Barge Canal during the historic period between Locks E-14 and E-15, and therefore are part of the canal's historic setting. The Mohawk





Figure 1.51 (left). Utility Facility, land-cut canal: Overhead utility lines along West Canal Road west of Hulberton, looking east, June 2022. (SUNY ESF)

Figure 1.52 (right). Utility Facility, canalized river: Catenary structure that carries high-tension power lines across the Barge Canal between Locks E-14 and E-15 in the Town of Palatine, looking north from the canal, July 2022. (SUNY ESF)

River/Barge Canal also served as an outlet for treated sewage. In ca. 1970 after the historic period, the Montgomery County Sanitary District erected a wastewater treatment plant on the south side of the river east of Canajoharie Creek, but it is compatible with the historic setting because it is mostly screened from the canal by woods (in leaf). Municipal sewage treatment complexes also are on the north bank east of the St. Johnsville terminal and east of Nelliston, both mostly screened by woods.

Archaeological Resource

Archaeological resource adjacent landscapes are places near the canal that retain remnants of past land use and development.

Inventory Method: Inventoried occurrences are individual resources or areas, including abandoned alignments and features associated with the old Erie Canal or construction of the Barge Canal. Only visible above ground remnants, or resources documented on historic Barge Canal contract documents, are inventoried. Occurrences may overlap with other adjacent landscape types, including Woodlands and Hedgerows, Parks and Conservation Areas, and Outlying State Canal Lands. Sensitive archaeological data is not included.

Main Sources: Field observation; Empire State Trail GPI Trail Data with Barge Canal and Canal Blue Line lands data (includes abandoned canal lands); Barge Canal contract drawings (Plan & Profile site plans); *onX* maps.

Examples: Hotel foundation near Fancher Road, Town of Murray (contributing); Old Erie Canal Alignment across from Guard Gate 12, Village of Brockport (contributing, but not visible); Old Erie Canal Lock 33 (contributing).

Evaluation Findings*:* Archaeological resources are generally not character-defining features of the Barge Canal setting but may be important for understanding the history of the canal and use of adjacent lands. Due to the limited scope of this pilot project, additional research and inventory would be necessary to more thoroughly identify and evaluate archaeological resources in the pilot areas.

- Land-cut Canal (fig. 1.53): Remnants of adjacent land use are evident on canal embankments and walls, such as masonry dock wall remnants near former quarries west of Hulberton. Enlargement and improvement of the original Erie Canal beginning in the 1830s and Barge Canal between 1905 and 1918 abandoned sections of earlier canal alignments and features. Some of these were left in place in outlying state canal lands, and today remain as waterbodies, ditches, and depressions that are mostly obscured by woodlands. Construction of the Barge Canal also required taking of adjacent private properties. Foundations from buildings demolished or made unusable due to construction of the Barge Canal include a hotel at the foot of the north canal embankment near Fancher Road.
- Canalized River (fig. 1.54): Canal-related archaeological resources in the pilot area are generally remote from the Barge Canal/Mohawk River. Canalization of the Mohawk River abandoned the old Erie Canal by 1918, but left segments watered and intact near the St. Johnsville area where the canal ran close to the river, while to the east it was converted to highway NY 5S. A largely intact and interpreted remnant of the old canal within the pilot area is Enlarged Erie Canal Lock 33, often called the "St. Johnsville Lock," and lengths of prism to the east and west. Prior to the 1960s, this length of abandoned canal was most likely visible from the Barge Canal, but today is largely screened by woods. The lock area was cleared of garbage and vegetation beginning in 1999.





Figure 1.53 (left). Archeological Resources, land-cut canal: Remnants of a dock wall west of Hulberton most likely related to quarrying on adjacent land, looking south, June 2022. While these remnants are within the NHL district, they reflect past uses of adjacent lands. (SUNY ESF)
Figure 1.54 (right). Archaeological Resources, canalized river: Old Erie Lock E-33 across from St. Johnsville, looking west, June 2022. (SUNY ESF)

SUMMARY FINDINGS OF HISTORIC RESOURCE SURVEY

HRS Inventory Data

Overall, landscapes adjacent to the Barge Canal that form the setting of the National Historic Landmark district retain many characteristics from the period of significance between 1905 and 1963. There remain large areas of agricultural land adjacent to both pilot areas, along with wooded areas, transportation corridors, and traditional urban development in hamlets and villages, such as Brockport (fig. 1.55). In the Mohawk Valley pilot area, views of surrounding ridges, notably the Noses, remain character-defining features of the Barge Canal's historic setting.

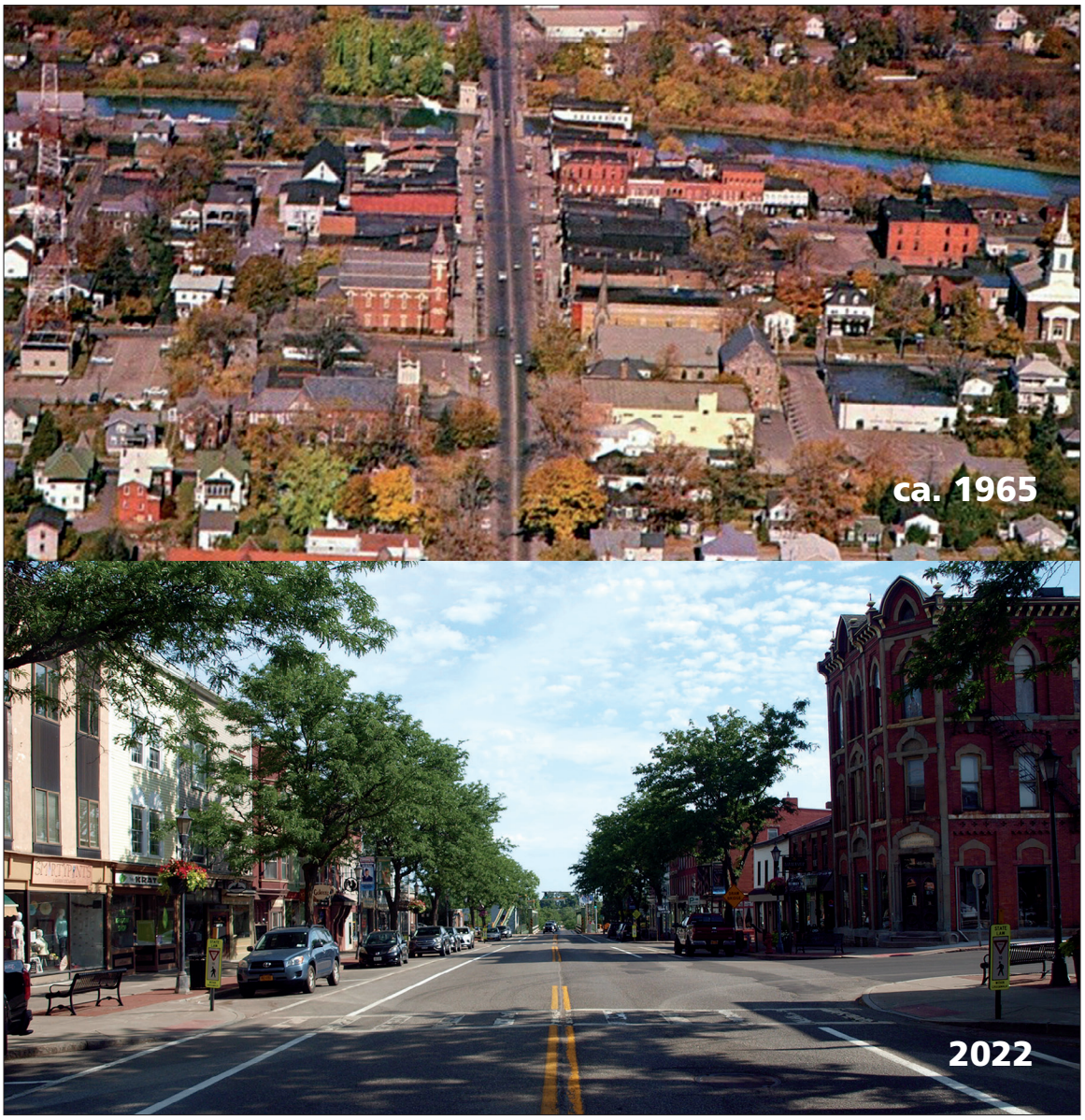


Figure 1.55. Comparison of historic and existing conditions in downtown Brockport (Main Street Historic District) showing retention of traditional urban fabric adjacent to the Barge Canal. Top: Postcard aerial view looking north toward the Barge Canal, ca. 1965; Bottom: looking north along Main Street to the Barge Canal lift bridge, June 2022. (Detail of Scott Studio postcard, P40696; SUNY ESF)

Significant changes in the setting of the Barge Canal in both pilot areas have occurred due to abandonment and development of farmland and the growth of woods on former farmland. Remaining fields and views have become blocked by the growth of strips of woods (hedgerows) along the edges of the canal (fig. 1.56). Although woodlands were characteristic of the canal historically, they represented a much smaller percentage of the historic setting. The majority of the canal in both pilot areas is bordered today by woodlands. These changes have altered the historic rural (agricultural) setting of the Barge Canal and limited outward views.



Figure 1.56. Comparison of historic and existing conditions of adjacent landscapes along the Barge Canal in the Mohawk Valley near Sprakers and The Noses. Top: Historic view showing fields extending to the riverbanks, October 1959. Bottom: Aerial view showing loss of some fields to woods and development and growth of strips of woods along the riverbanks, May 2022. (Detail, US Air Force aerial, 1VM 447 1370PMG (780), from USGS Earth Explorer; Google Earth)

Other changes since the 1960s have resulted from suburban development, most of which has no functional or physical relationship to the Barge Canal. Commercial strip development has spread on major roads near the canal, notably in the Mohawk Valley, but most is not visible from the Barge Canal due to topography and woods. Development of suburban residential and industrial areas has blurred the historic separation of urban and rural areas around the Village of Brockport and north of Holley (figs. 1.57, 1.58).



Figure 1.57. Comparison of historic and existing conditions west of the Village of Brockport showing change in adjacent landscapes from rural to suburban residential and institutional. Top: Postcard view of SUNY Brockport looking northeast showing growing campus, village residential along the canal, and farmland north of the canal shortly after the NHL period of significance, ca. 1965. Bottom: SUNY Brockport looking southeast (opposite direction) showing expansion of campus and development of suburban residential areas on former farmland, June 2022. The white arrow in both photographs points to Hartwell Hall. (Detail of Scott Studio postcard, P40695; Todd Lippa, NYS Canal Corporation)

The shift of Barge Canal uses from commercial to recreational has led to the creation of public canalside parks, some on former Barge Canal terminals and docks. Parks have revitalized canal uses in areas, but have also introduced designed ornamental landscapes that differ from utilitarian uses that historically bordered the canal.



Figure 1.58. Comparison of historic and existing conditions of adjacent landscapes along the land-cut Barge Canal in western New York. Top: Historic view showing compact Village of Holley and farmland extending to the edge of the Barge Canal, June 1958. Bottom: Aerial view showing suburban development north and northeast of Holley, and loss of fields to woods and growth of hedgerows along the canal, May 2022. (Detail, US Air Force, 134 1371MCS (934), from USGS Earth Explorer; Google Earth)

Cell towers, newer and larger power transmission lines, and sewage treatment facilities are also notable additions to Barge Canal landscapes, but they are generally screened or occur in isolated areas. Large solar farms in the Mohawk Valley are well south of the canal.

HRS Method

This pilot inventory for the setting of the Barge Canal NHL district adapted the Historic Resource Survey analysis and evaluation method to the complex types of landscapes, multiple ownership situations, and need for a less intensive type of historic resource inventory. The adapted HRS method provided a reconnaissance-level survey of the Barge Canal setting in the two pilot areas based on a landscape approach used in the Cultural Landscape Inventory (CLI) method that addresses the entire outdoor environment, including both natural and cultural resources. The HRS method also provides a means to cross-reference other existing natural and cultural resource inventories. Due to the pilot nature of this project, the data produced through the HRS method should not be considered comprehensive, since the focus of the study was on piloting methods. Additional types of adjacent landscapes may be found in other areas of the Barge Canal system.

Issues that arose in applying the adapted HRS analysis and evaluation method included the following:

- The adjacent landscapes inventory overlaps with the Barge Canal landscape (NHL district) cultural landscape inventory, particularly along the boundaries of the NHL district. There is duplication of data across both inventories. In addition, certain state canal lands are included in certain areas, but excluded in others, which confuses the distinction between the two inventories. For example, the Lock E-14 canal park is within the NHL boundary (inventoried using the CLI method), while the Lock E-15 canal park is mostly outside the NHL boundary (inventoried under HRS method).
- The Outlying State Canal Lands adjacent landscape type overlaps with other landscape types, particularly woodlands. These lands, in particular those in state fee ownership, are closely associated with the Barge Canal. However, the NHL district boundary excludes these because it was drawn only to encompass built Barge Canal resources and does not reflect the larger cultural landscape.
- The HRS method did not pre-establish boundaries of adjacent landscapes. Boundaries were selected based on visual extent, or the limits of individual properties, historic districts, and other boundaries. This led to some inconsistency about the extent of what was inventoried as part of the Barge Canal setting.
- Aerial photographs and USGS topographic maps provided a sound basis for evaluating change in location and overall pattern of adjacent landscapes. More detailed analysis of change since the historic period would require

additional research and documentation that was not available for this pilot project.

Due to the limited scope of this pilot project, the HRS was not developed around how it would serve users of the data, in particular local governments and private landowners.

VISUAL RESOURCE INVENTORY

In addition to assessing the historic qualities of landscapes associated with the New York State Barge Canal and its setting, this project explored methods to inventory scenic landscape resources, in keeping with national purpose of the Erie Canalway National Heritage Corridor to preserve and interpret its important historic, cultural, recreational, *scenic,* and natural resources.[11]

The Visual Resource Inventory (VRI) method was applied to inventory and evaluate scenic views from various points on the canal and canalside trail (there is no canalside trail in the canalized river pilot area) (see fig. 1.1). External views looking to the Barge Canal, such as from the New York State Thruway to the Mohawk River, were not part of the project scope. The VRI was applied to the same landscapes inventoried using the CLI and HRS methods. However, the focus of the VRI is to identify and evaluate aesthetic values of viewpoints and their importance to viewers, although historic values can be considered.

VRI INVENTORY METHOD

An inventory and assessment of scenic views from the Barge Canal was undertaken according to the Visual Resource Inventory developed by the National Park Service for use in national parks. The ESF team adapted the NPS VRI method to the unique conditions of the Barge Canal. The team explored other visual resource inventory methods developed by the Bureau of Land Management and the US Forest Service. However, the NPS method, which corresponds to the NPS mission to "…conserve the scenery and the natural and historic objects and the wild life therein…," are most closely aligned with the historic and cultural nature of landscapes that form the setting of the New York State Barge Canal.[12]

The NPS VRI method begins with selecting specific viewpoints based on the inventory purpose and accessibility. For each viewpoint, which in national parks are typically scenic overlooks and other designated scenic locations, the method assesses and rates scenic quality and view importance, which together form a composite scenic quality rating (figure 1.59):

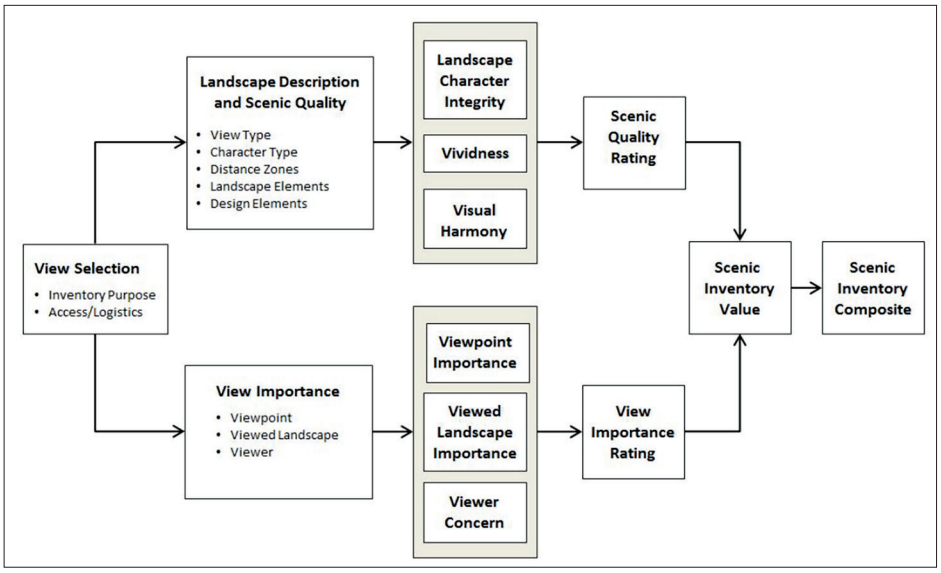


Figure 1.59. Flowchart of the National Park Service Visual Resources Inventory method. (National Park Service Visual Resource Program)

- Scenic Quality Data identifies and describes visible elements of the viewed landscape, such as element integrity, vividness, and harmony, and rates the scenic quality of the view.
- View Importance Data identifies and assesses the importance of the view based on publicity, management, interpretive services or themes, and viewer concern.

The results of these two assessments are then combined through *t*he Scenic Inventory Matrix to determine a composite Scenic Inventory Value which can be used to help determine the need for protecting, maintaining, or improving a view.[13]

Adaptation of NPS VRI Method to the New York State Barge Canal

The pilot landscape inventories of the Barge Canal used three standardized NPS VRI forms: 1. View Identification Worksheet; 1. Visual Description and Scenic Quality Form (combined with Scenic Quality Individual Rating Data form); and 3. View Importance Data Form. These forms were modified to better align with the non-NPS unit status, state-owned lands, and landscape types of the Barge Canal without altering the underlying framework or rating systems (sample completed forms in Appendix B). Modifications to the NPS VRI forms in addition to naming (ERCA, NYS Barge Canal Visual Resource Inventory) included the following:

View Identification Worksheet (Form 1)

- Level of access criteria for the viewpoint was adapted to conditions of Barge Canal (via boat) and Erie Canalway Trail, since there are few designed or identified viewpoints.

- Priority of the viewpoint criteria (identification of threat) was not changed.

View Description & Scenic Quality Data Form (including Scenic Quality Individual Rating Data) (Form 2)

- Observation Data: Barge Canal division substituted for NPS unit.
- Landscape Description: Landscape Character Type and Landscape Elements were changed to align with the HRS Adjacent Landscape types (Woodlands and Hedgerows, Villages, Suburban Residential Areas, etc.). Landscape Description is where the historic character of the view (landscape) can be described.
- Scenic Quality Individual Rating Data: Not modified. The degree to which the historic character of the landscape has been altered can be reflected in the rating of "landscape character elements" and "inconsistent elements."

View Importance Data Form (Form 3)

- Viewpoint Description: The viewpoint subtypes were adapted to reflect the viewpoint types found on the Barge Canal system (canal prism, Erie Canalway Trail, lock park, canal bridge, etc.). All viewpoints per the project scope are looking from within the Barge Canal National Historic Landmark district (on water, canalside trail, or bridge crossings).
- Viewed Landscape Description: The project modified Designated Scenic/Natural Components and Designated Historic/Cultural Components to add the New York State Barge Canal NHL district and state-level conservation lands and historic properties.
- Scenic Inventory Value Matrix: Not changed. This is a table that combines the Scenic Quality Rating (A/highest to E/lowest) and View Importance Rating (1/highest to 5/lowest) to create a composite scenic value for each viewpoint (Very High to Very Low).

For the Barge Canal pilot inventories, viewpoints were first identified in the office and were edited in the field (deleted or new viewpoints selected) using the viewpoint identification worksheet. Some of these viewpoints were chosen based on historical significance demonstrated through historic postcards and photos, while others were selected based on current use evident through public access and social media postings, location of interpretive waysides, and other indicators. There are no formally designated viewpoints on the Barge Canal or along the canalside trail in the pilot areas. Given the limited scope of this project, a limited number of viewpoints were selected to represent typical views of canal features and adjacent landscape types identified through the Historic Resource Survey method. Each viewpoint was then assessed in the field by the ESF project team

Rating	View Importance 1	View Importance 2	View Importance 3	View Importance 4	View Importance 5
Scenic Quality A	Very High	Very High	Very High	High	Moderate
Scenic Quality B	Very High	Very High	High	Moderate	Low
Scenic Quality C	High	High	Moderate	Low	Low
Scenic Quality D	High	Moderate	Low	Very Low	Very Low
Scenic Quality E	Moderate	Low	Very Low	Very Low	Very Low

Figure 1.60. Scenic Inventory Value matrix that combines Scenic Quality and View Importance ratings. (National Park Service Visual Resource Program)

(4-5 people) using the View Description & Scenic Quality Data Form, and the View Importance Data Form. The composite Scenic Inventory Value (SIV) was then calculated using the template matrix (fig. 1.60).

VRI Research and Field Work

The ESF project team reviewed examples of previously completed VRIs to understand the method and how to apply it to the Barge Canal. The team reviewed NPS VRI projects for the George Washington Memorial Parkway (2014) and Harper's Ferry National Historical Park (2020), as well as reports on VRI methods and the 2021 Visual Resource Stewardship Conference proceedings. The team met with ESF Professor Robin Hoffman, whose expertise is in visual resources management, to better understand methods. Visualization Department staff at Environmental Design & Research (EDR) Landscape Architecture, Engineering and Environmental Services in Syracuse explained methods the firm uses to analyze viewsheds and undertake visual impact analyses, and how they might inform a visual resource inventory of the Barge Canal.[14]

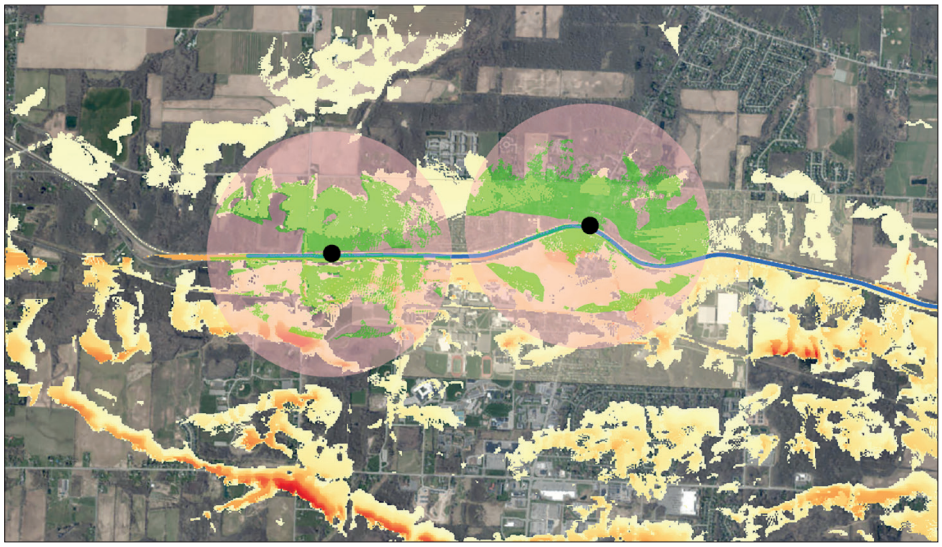


Figure 1.61. Map of viewshed extents based on LiDAR data and illustrated in ArcGIS from two points along the canal at Brockport: at Guard Gate #12 (left) and at the Main Street Lift Bridge (right). The circles show an arbitrary one-mile radius from each viewpoint, and the green indicates areas that could be visible from the canal (bare earth--if there were no buildings, trees, etc.). The yellow-to-red shading shows elevations (yellow/low, red/high). (SUNY ESF)

Office research for defining viewpoints included mapping of potential bare-earth viewshed extents in ArcPro GIS for both pilot areas (figure 1.61). This helped the team identify potential maximum viewsheds in the field. Detailed mapping of viewshed extents including landcover (above-ground buildings, woods, etc.) for each viewpoint using LiDAR data was not feasible for the pilot project due to limits of expertise. Fieldwork for each view took about 30 to 45 minutes per viewpoint as team members completed the field forms and discussed varying opinions on ratings for scenic quality and view importance.

VRI FINDINGS – VIEW IDENTIFICATION (FORM 1)

Selection of viewpoints along the Barge Canal and Erie Canalway Trail differed greatly from a typical National Park unit where there are designated viewpoints such as scenic overlooks and managed vista clearings.

All selected viewpoints on the Barge Canal were readily accessible to the public, except those taken from a canal boat (much of the Mohawk River section of the canal is accessible only by boat). However, there are no designated scenic viewpoints and few interpretive waysides along the canal that direct visitors toward a particular viewshed. Views looking out across farmland, villages, or other adjacent landscapes that allow for expansive views are limited due to presence of woods bordering most of the canal in the two pilot areas. Overall views in both pilot areas, as documented in the Cultural Landscape Inventory (CLI) method under the landscape characteristic "Views and Vistas," consist mostly of continuous views along the linear canal corridor, with canal structures such as bridges and locks forming focal points.

There are no known immediate threats to any of the viewpoints that would prioritize them from a management perspective, but growth of woodlands adjacent to the canal presents an ongoing concern for continued loss of outward views (some woodlands also screen incompatible modern development).

Land-cut Canal Viewpoints

The team selected the following five viewpoints (fig. 1.62):

1. Kirby Orchard Farm (east of Albion, not on fig. 1.61):[15] This viewpoint was identified from the canal boat to represent a large canalside agricultural clearing with orchards. It is not marked or interpreted but is visually prominent.
2. East Avenue Lift Bridge at Holley Canal Park: This viewpoint was identified from the canal dock wall to reflect a view of a canal bridge that was featured in historic photographs and postcards, and because it incorporates non-historic recreational features in the view.

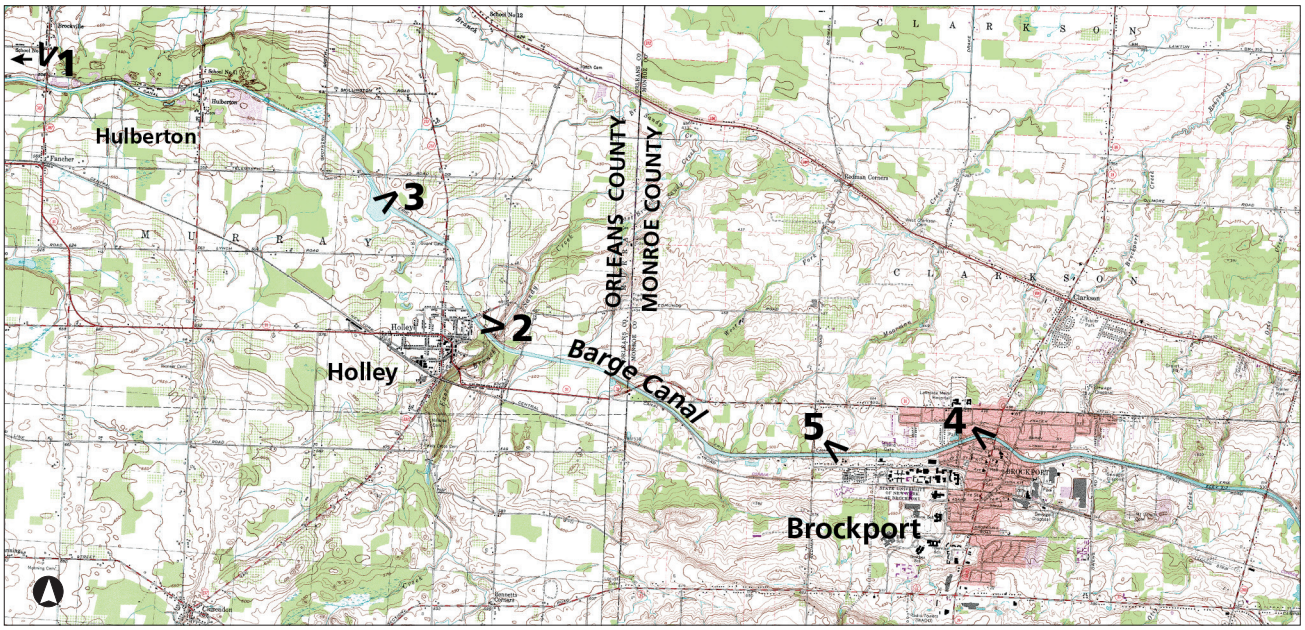


Figure 1.62. Map of the five viewpoint locations inventoried in the land-cut pilot area. (Cornell University Mann Library USGS topographic map mosaic, Orleans and Monroe counties, ca. 1970, annotated by SUNY ESF)

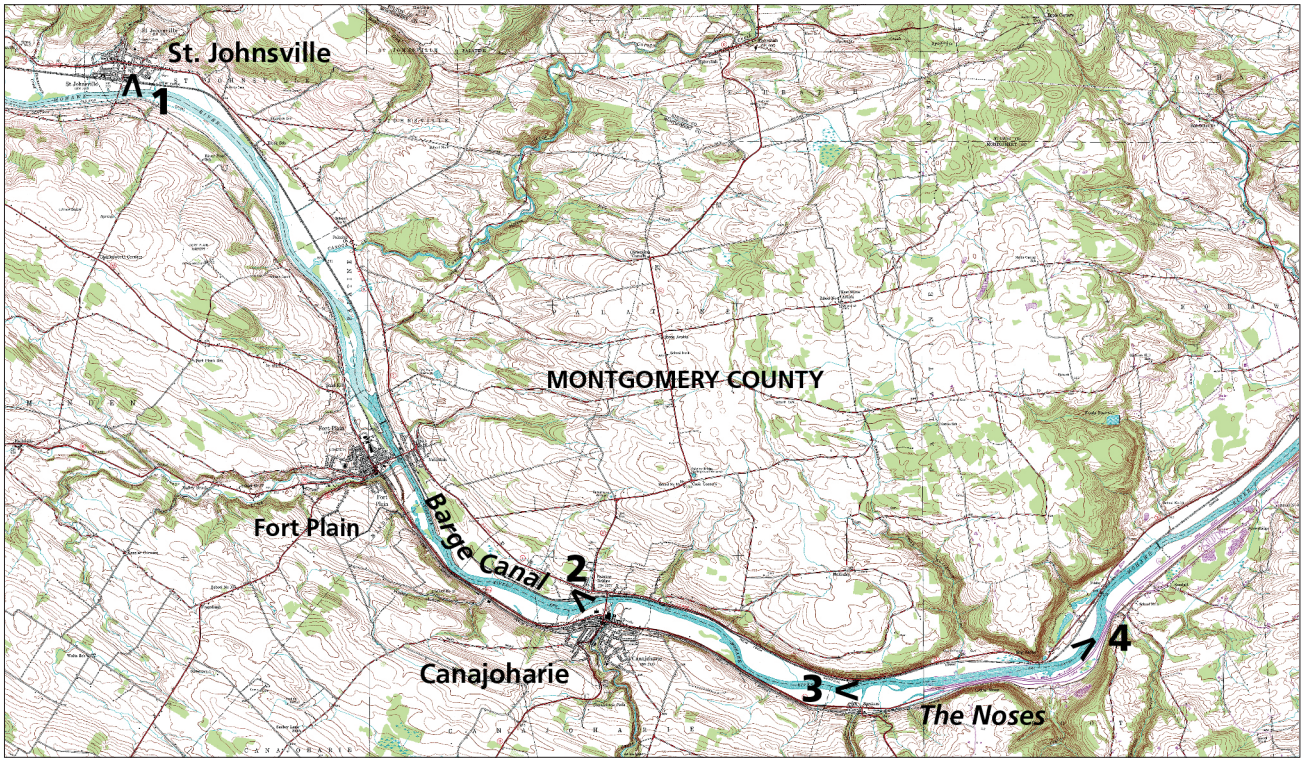


Figure 1.63. Map of the four viewpoint locations inventoried in the canalized river pilot area. (Cornell University Mann Library USGS topographic map mosaic, Montgomery County, ca. 1970, annotated by SUNY ESF)

3. Breach Pond (north of Holley): This viewpoint was identified because of the expansive views from the canal and canalside trail across open water to farm fields and woodlands in the distance.
4. Main Street Lift Bridge and Downtown Brockport: This viewpoint was identified from the canalside trail to reflect an urban view with the canal lift bridge and historic buildings in the Main Street historic district that were featured in historic photographs and postcards.
5. Hometowne Energy (west of Brockport): This viewpoint from the canalside trail was identified to represent a historic suburban industrial landscape along the canal (former fuel oil depot), which is the only prominent built complex within a wooded stretch.

Canalized River Viewpoints

The team selected the following four viewpoints (fig. 1.63):

1. St. Johnsville Municipal Marina (Terminal): This viewpoint was identified to represent a recreational landscape with largely enclosed viewshed and set within the historic canal terminal that has been adapted for recreational use.
2. Canajoharie and the Mohawk River from Lock E-14 Canal Park: This viewpoint was selected to represent foreground river views with canal structures and mid-ground and background urban views from a canal facility that had been adapted for recreational use.
3. Down-river View from near Sprakers: This viewpoint from a canal boat was selected to represent views down the Mohawk River in a natural-appearing stretch of the canal with no visible built elements and featuring the high ridges of The Noses in the distance.
4. Up-river View of the Noses: This viewpoint from a canal boat was selected to capture a closer view of The Noses, which was historically depicted in paintings, photographs, and postcards. The view also includes the railroad and agricultural fields.

VRI FINDINGS – VIEW DESCRIPTION & SCENIC QUALITY DATA (FORM 2)

The View Description & Scenic Quality Data form, as modified for this project, provided a means to describe the nine viewpoints and their viewsheds based on adjacent landscape types identified through the Historic Resource Survey (HRS) method. The View Description criteria for distance zones, landscape elements, prominent design elements, and scenic quality provided a directed means to describe each existing viewshed in more detail than is typical of a Views and Vistas feature using the Cultural Landscape Inventory (CLI) method. The Scenic Quality factors allowed for taking into consideration the presence of elements that are inconsistent with the historic character of the Barge Canal landscape—such as wood decks on the historic concrete dock walls at Holley Canal Park—as well as physical condition, such as deteriorated concrete on the Holley Embankment walls.



Figure 1.64. Land-cut canal, Scenic Quality, viewpoint #5: Hometowne Energy (historic fuel oil depot) looking southeast from the Erie Canalway Trail, June 2022. This viewpoint was assessed a C (low) Scenic Quality Rating due to lack of strong focal points and a limited distance zone. Despite this, Hometowne Energy provides a point of interest in an otherwise monotonous wooded stretch. While industrial properties are not typically considered scenic, they reflect the historic commercial context of the Barge Canal (SUNY ESF)



Figure 1.65. Land-cut canal, Scenic Quality, viewpoint #3: East Avenue (Holley) Lift Bridge looking southwest from the Erie Canalway Trail pavilion, June 2022. This viewpoint was assessed a high (A) Scenic Quality Rating because of the strong focal points formed by the lift bridge and control tower framed by trees. (SUNY ESF)

Overall, the scenic quality of the nine inventoried viewpoints ranged from C (middle rating) to A (highest rating). Low-rated viewpoints were due to limited range of view (often due to growth of woods), lack of strong focal points, and presence of inconsistent elements (deteriorated historic features or incompatible non-historic features) (fig. 1.64). High-rated viewpoints tended to have strong focal points—natural and/or built—and broad range of view from foreground to background, with historic features and limited inconsistent elements (fig. 1.65). The team rated views with historic Barge Canal features (bridges, dams, locks, etc.) as having the highest scenic quality.

FINDINGS – VIEW IMPORTANCE DATA (FORM 3)

The View Importance Data form, as modified for this project, allowed for describing view types according to their relationship to the Barge Canal, and for identifying designated historic and natural areas within the viewed landscape (viewshed), such as National Register districts and agricultural districts. These areas were also documented through the Historic Resource Survey (HRS) method. Viewpoint importance was based on whether the viewpoint was described on the Erie Canalway National Heritage Corridor website, or whether there was a bench, boat dock/tie-up, interpretive wayside, trail kiosk, or other sign. Viewed Landscape Importance was based on the existence of designated historic or natural areas, such as the Brockport Main Street Historic District and The Noses. Viewer Concern was rated based on the evidence of visitor use reflected in public access (boat or trail), or whether the viewpoint had evidence of visitor use such as eroded ground from foot traffic, or photos posted on social media.

Overall, the View Importance of the nine inventoried viewpoints ranged from 5 (lowest rating) to 2 (second-highest rating). Lower rated viewpoints generally had weakly defined viewer locations, no publicity, little interpretation or a weak relationship to interpretive themes (Barge Canal) and appeared to have minimal visitor use (fig. 1.66). Higher rated viewpoints generally had signs of greater public use, clear connections to interpretive themes (display historic Barge Canal features), and were recognizable as significant by the public (fig. 1.67)

SUMMARY FINDINGS OF VISUAL RESOURCE INVENTORY METHOD

VRI Inventory Data

The Scenic Inventory Value for the nine selected viewpoints in the two pilot areas, which combines the Scenic Quality Rating and View Importance Rating, ranged from Low to Very High. Overall, the Scenic Inventory Values reinforce findings from the Cultural Landscape Inventory (CLI) and Historic Resource Survey (HRS) methods: loss or alteration of historic canal features, notably removal of



Figure 1.66. Canalized river, View Importance, viewpoint #1: St. Johnsville Municipal Marina looking southwest, June 2022. This viewpoint was assessed at a lower (4) View Importance Rating because, despite the existence of an interpretive kiosk near the viewpoint, the view is not well publicized and the marina, located off the Erie Canalway Trail, appears to be minimally used. The viewshed also does not have strong focal points. The plate girder bridge is a non-contributing resources in the National Historic Landmark district (replaced a truss bridge), and the terminal has been redesigned for recreational use—factors that obscure the marina's historic connection to the Barge Canal system. (SUNY ESF)



Figure 1.67. Canalized river, View Importance, viewpoint #1: View from Lock E-14 Canal Park near Canajoharie, July 2022. This viewpoint was assessed a higher (2) rating because it is a canal park and lock open to the public that is well publicized, and the viewshed demonstrates key historic characteristics of the Barge Canal with the moveable dam as a focal point. (SUNY ESF)

truss bridges, loss of historic barge canal boats, and renovations for recreational use, together with growth of woods and loss of open agricultural fields on adjacent landscapes, has lowered the scenic quality of the National Historic Landmark district.

The project team found that in most cases, the scenic quality of a viewpoint is consistent with the historic character of the view (CLI landscape feature). For example, the most scenic viewed landscape in the pilot areas consists of the Noses along the Mohawk River (canalized river viewpoint #4), and this scenery existed historically. There are no features added to the viewed landscapes since the end of the NHL period of significance in 1963 that enhance scenic quality. However, post-1963 woods in certain areas screen more recent suburban development, such as at Brockport, and while these woods are not historic, they could be evaluated as enhancing the scenic character of the Barge Canal landscape. The CLI evaluation also notes that while these woods are non-contributing, they are compatible because they screen incompatible non-historic development.

The existence of features designed for the viewer, such as benches, interpretive waysides and kiosks, and recreational boat ramps and tie-ups, enhance view importance, and thereby the composite Scenic Inventory Value, but may detract from the historic character of the landscape. Alternatively, absence of these viewer use features may create a low scenic value for historically important viewed landscapes, such as the Hometowne Energy property (land-cut canal viewpoint #5). This property had a low scenic quality rating due to lack of strong focal points and discernible patterns, despite its historic importance.

Overall, the VRI for the pilot areas provided added data on aesthetic qualities and use issues in the landscape that were not captured through the CLI and HRS methods. However, some data in the VRI forms duplicate data collected for the other inventory components, including Viewed Landscape Description (HRS Adjacent Landscape type/occurrence); Viewpoint Description (CLI Views and Vista features); Landscape Character Scenic Integrity (CLI evaluation of historic character); and View Importance and Viewer Concern (CLI Land Use, management).

VRI Method

The inventory team found that Visual Resource Inventory forms are overall not well suited to the Barge Canal because the NPS VRI is designed for specific designed viewpoints, and the Barge Canal was not historically designed for its scenic values, and it presently has no specific managed viewpoints (within the pilot areas). In addition, the NPS VRI method, because it is based on inventorying viewpoints, does not easily lend itself to creation of a baseline inventory of scenic resources over a large area.

With more time and resources, it may have been possible for this pilot project to inventory many multiple points to create a continuous record of scenic landscapes along the Barge Canal. Viewsheds from multiple or continuous viewpoints could also be mapped in ArcGIS along the centerline of the canal and canalside trail, using LiDAR bare earth and landcover (tree and building heights, etc.). This mapping, which was not possible for this project due to limits of time and expertise, would provide detailed information on the limits of the viewed landscape.

The CLI method documented the overall character of views along the Barge Canal NHL district, as well as individual view features (VRI viewpoints). Unlike many VRIs, the viewpoints are all part of a historic landscape (NHL district and its setting), and therefore each is historic. Completing a NPS VRI of continuous viewpoints along the canal corridor may therefore be duplicative, especially if the CLI were enhanced to include the scenic quality data of the VRI.

The NPS VRI method may be most valuable to develop detailed inventory data on specific viewpoints and their viewed landscapes if the viewpoints are designated as key locations for visitor use and interpretation, and there is a need to protect the viewed landscapes from those viewpoints. The NPS VRI would be especially valuable if there is a potential threat to a viewed landscape.

ENDNOTES

1 Robert R. Page, with revisions by Jeffrey Killion and Gretchen Hilyard, "National Park Service Cultural Landscape Inventory Professional Procedures Guide" (Unpublished report prepared for the NPS Park Historic Structures and Cultural Landscapes Program, January 2009). Chronologies were drafted to outline the development of the canal in each pilot area but writing of the Physical History section of the CLI was beyond the scope of the project. The history of the Barge Canal is well covered in the National Historic Landmark documentation.

2 Nick Conrad, Information Resources Coordinator, New York Natural Heritage Program, e-mail to John Auwaerter, September 20, 2022.

3 No ground-level historic photographs for the land-cut canal from the late NHL period of significance (1950s) were found.

4 The NYS Canal Corporation maintains detailed GIS data on canal tracts. These tracts include resources associated with construction of the Barge Canal, such as borrow pits, or are part of the ongoing function of the Barge Canal, for discharge and deposition of spoils. Most state canal parcels outside the NHL boundary are associated with the old Erie Canal.

5 Anne Derry et al, *National Register Bulletin 24, Guidelines for Local Surveys: A Basis for Preservation Planning* (Washington, D.C.: National Park Service, 1977, revised 1985), 35-36.

6 "National Park Service Cultural Landscape Inventory Professional Procedures Guide" (2009). The term "Adjacent Landscapes" is used rather than the CLI term of "Adjacent Lands" because the pilot inventories are documenting types of

landscapes rather than individual properties (lands). "Adjacent Lands" is a section of the standard NPS CLI that provides an overview of parcels adjacent to the inventoried landscape that contribute to its historical significance.

7 The Adjacent Landscape types identified for this pilot inventory project are similar to landcover types identified in GIS databases but differ in type and level of detail.

8 Historic England, Research page, "Historic Landscape Charcterisation," https://historicengland.org.uk/research/methods/characterisation/ (accessed April 2022).

9 onX, https://www.onxmaps.com/about.

10 ArcGIS layers in Empire State Trail "GPI Trail Data" https://canals.maps.arcgis.com/apps/mapviewer.

11 National Park Service, "Erie Canalway National Heritage Corridor Preservation and Management Plan" (Unpublished report, October 2006), 1.1.

12 National Park Service Organic Act, 1916. These methods are documented in the following: National Park Service, "Cultural Landscape Inventory Professional Procedures Guide" (2009, updated 2025); National Register Bulletin 24, "Guidelines for Local Surveys: A Basis for Preservation Planning" (1977, revised 1985); and NPS Visual Resource Inventory forms and instructions (2016). There is no published guide for the VRI.

13 Bureau of Land Management Visual Resources website, "National Park Service Visual Resource Inventory," https://blmwyomingvisual.anl.gov/vr-inventory/nps/ (accessed June 2022). Research into methods for this project focused on visual resources because the ESF project team is well versed in methods of cultural landscape and historic resource inventories.

14 Daniel Schaible, "George Washington Memorial Parkway – North Visual Resource Inventory & Assessment" (Unpublished NPS report, November 2014); Mark E. Meyer and Maureen Joseph, "Visual Resource Inventory Report – Harpers Ferry National Historical Park – Chesapeake & Ohio Canal National Historical Park" (Unpublished NPS report, 2020); Robert G. Sullivan and Mark Meyer, "The National Park Service Visual Resource Inventory: Capturing the Historic and Cultural Values of Scenic Views" (Unpublished NPS report, 2016); Robin Hoffman, Brent Chamberlain, and Richard Smardon, "VRSC 2021 Conference Proceedings" (SUNY ESF Digital Commons, October 8, 2021).

15 This viewpoint is beyond the reduced pilot area but was part of the canal boat trip and was included for its landscape character.

2. LAND-CUT CANAL PILOT AREA INVENTORY DATA

This chapter provides landscape inventory data collected within the land-cut pilot area (Brockport to Hulberton, Monroe and Orleans counties) using the Cultural Landscape Inventory method for the Barge Canal National Historic Landmark (NHL) district, the Historic Resource Survey method for the setting of the NHL district, and the Visual Resource Inventory method for views from the NHL district. This data is not complete or final. It reflects the pilot scope and limited research undertaken for this project. The primary purpose of this data is to illustrate results of the pilot inventory methods.

CULTURAL LANDSCAPE INVENTORY FEATURE DATA (NHL DISTRICT)

The inventory data in this section is for landscape *features*, which are distinct resources associated with broad patterns defined as landscape *characteristics* in the NPS *Guide to Cultural Landscape Reports* (see chapter 1 for findings on landscape characteristics). For each landscape feature, table 2.1 includes: 1. Feature name; 2. Location—mileage along the canal; 3. Whether the feature is a NHL resource (Building, Structure, Object, Site); 4. If the feature is captured in a New York State Canal Corporation or NYS Department of Transportation inventory; 5. Evaluation of how the feature contributes to the historic character of the Barge Canal landscape (contributing, non-contributing, or unevaluated if insufficient information is available). An explanation of how the feature contributes is provided in most instances only for features not previously inventoried in the NHL documentation.

Notes about the CLI feature inventory data:

- Canal mileage should correspond to the National Historic Landmark district measurements along the centerline of the canal. However, the GIS data for this was not available. Mileage in the tables for non-NHL documented resources thus refers to mileage along the Erie Canalway Trail, which has a different starting point (about 1-2 miles difference).
- Due to the limited research for this pilot project, an evaluation of how features contribute to the historic character of the Barge Canal (compatible or incompatible) was not completed for all inventoried features. This information is important to inform future management.
- Features already inventoried in the NHL documentation as resources do not include an explanation of how they contribute to the historic character of the Barge Canal since that is contained in the NHL form.

- For the New York State Canal Corporation inventories (Canal Infrastructure Management System, GPI Trail Data), only a general reference to the source is provided for each landscape feature (NHL district inventory). Due to limited scope of this project, correlation with a specific NYSCC inventory unit (STRUCTURE ID and FID) was not specified.
- Non-historic Small-Scale Features (mostly related to Erie Canalway Trail and park areas) are grouped according to type or location.

Abbreviations:

BIN – Bridge Identification Number (NYSDOT)
CIMS – Canal Infrastructure Management System (NYS Canal Corporation)
GPI Trail Data – Empire State Trail Inventory
NHL – National Historic Landmark (Barge Canal historic district)
NYSCC – New York State Canal Corporation
NYSDOT – New York State Department of Transportation
n/a – Not available

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

Natural Systems and Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Embankment Woods	Multiple	No	CIMS (Earthen Embankment Integrity Program)	Non-Contributing (compatible). Non-historic woods on the embankments alters the historic open spatial character but are compatible with the historic wooded setting of the canal in areas.
Spatial Organization				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Hulberton Dock Area	288.5	No	No	Contributing. Narrow rectangular turf area east and west of lift bridge between dock wall and Canal Road. West section now used as a park with picnic tables and barbecue.
Holley Terminal Area	283.4	No	No	Contributing. Rectangular turf area west of lift bridge between terminal wall and East Union Street. Missing freight house. Includes parking area.
Erie Canalway Trailhead Area – Holley Embankment	285.34	No	No	Non-contributing (incompatible). Small rectangular area along trail for visitor orientation, added ca. 2005. Conspicuous location and use of ornamental plantings detracts from the historic character of the canal.
Brockport Terminal Area	280.65	No	No	Non-contributing (incompatible). Former utilitarian space substantially altered in extent and character as part of Harvester Park completed in 2005 (see Adjacent Landscapes). Welcome Center building on permitted canal land.
Erie Canalway Trailhead Area – Village of Brockport	280.86	No	No	Non-contributing (compatible). Inconspicuous small rectangular area containing kiosk/pavilion, and benches near Main Street lift bridge, added ca. 2005.
Erie Canalway Trail – Brockport Promenade Area	280.6-280.8	No	No	Non-contributing (incompatible). Former utilitarian canal access area and road between lift bridges on north bank substantially altered ca.1995 through planting of allées of trees and installation of ornamental pavement, benches, bollards, and waste receptacles.

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

Land Use

Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Village of Brockport Permit – Brockport Terminal Area (Harvester Park)	280.6	No	Permits	Non-contributing.
Village of Holley Permit – Holley Dock and Spillway Area (Holley Canal Park)	285-1-285.2	No	Permits	Non-contributing.
Town of Clarkson Permit – San Souci Park/NY 31 Trailhead	Unevaluated	No	Permits	Non-contributing
Private Dock Permits	Multiple	No	Permits	Non-contributing.
Siphons – Agricultural Irrigation Permits	Multiple	No	Permits	Non-Contributing. Farmers and resident owners adding non-permitted or permitted siphons into the water for personal or agricultural use. Metal, PVC, and garden hose piping

Circulation

Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Erie Canalway Trail (Canal Access Roads-North Embankment)	Continuous	No	GPI Trail Data	Contributing. Changed from utilitarian road to recreational trail post-1990. Mostly gravel and earth; portions asphalt and paver.
Erie Canalway Trail Public Road Access Spurs	Multiple	No	GPI Trail Data	Contributing. Spurs from public roads/bridges to trail (access road). Typically, on both sides of bridge embankments. Dates of construction not determined but presumed to exist historically to provide access to canal. Some expanded into trailheads post-1990.
Canal Access Roads – South Embankment	Multiple	No	CIMS?	Contributing. Unsurfaced access roads along south embankment; not where public roads border canal. Extents not inventoried. See also Holley Canal Trail.
Parking Area –NY 19 Trailhead (NYSDOT)	280.86	No	GPI Trail Data	Non-contributing. Paved parking area at northwest end of lift bridge that serves as trailhead. Owned by NYSDOT as part of NY 19. Not evident in 1959 aerial.
Holley Terminal Parking Area	284.6	No	CIMS?	Non-contributing. Paved public parking area at terminal area, most likely replaced open gravel area.
Holley Canal Trail	284.5	No	CIMS?	Unevaluated. Permitted village-maintained trail on dock wall (deck) and south embankment; may be historic access road.

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

Hulberton Shops Access Road	286.58	No	CIMS	Unevaluated. Road off Market Street/Hulberton Road to canal terminal. Not part of original Barge Canal construction. Date of development not determined.
Public road crossings: see Bridges (Buildings & Structures)				
Social Trail to Willowbrooke Apartment Complex, Brockport (part)	286.1	No	No	Non-contributing (compatible). Inconspicuous dirt trail off Erie Canalway Trail, 322.4 feet, post-1970.
Walk to Evergreen Tot Lot, Brockport (part)	281.4	No	No	Non-contributing (compatible). Inconspicuous surfaced trail with steps off Erie Canalway Trail to village park/playground, built post-1970.

Topography (Land-cut Canal)

Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Ditches	Multiple locations	No	CIMS	Unevaluated. Ditches along north and south embankments and at culverts. Not field checked; appearance and history not determined.
Embankments	286.2-286.5	Yes (not individually inventoried)	CIMS	Contributing. Embankments mostly continuous on north side, some on south side in low areas. Largest embankments on both sides at Holley. Historically maintained as mown cover, grew up post-1963 in woods; now intermittently cleared of successional vegetation.
Spoils Berms	Multiple locations	No	No	Contributing. 5-to-8-foot-tall tree-covered narrow berms on outer edge of Erie Canalway Trail and embankments dating to construction of the Barge Canal (shown on 1908-1910 Map & Profile plans). Most likely reflect lack of adjacent land for deposition of spoils. Most in Town of Murray west of North Main Street Bridge, Holley.

Vegetation

Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Brockport Promenade Shrubs and Tree Allée	280.6-280.8	No	No	Non-contributing (non-compatible). Row of deciduous (honey locust) and evergreen (pine) trees and sheared and unsheared shrubs (forsythia, burning bush) along walkway on Erie Canalway Trail between North Main Street and Park Avenue, planted ca

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

				.1995. Plantings alter the historic utilitarian character of the Barge Canal.
Embankment Screening Hedges	Various	No	No	Non-contributing (compatible). Planted in recent years where embankment woods were cleared to screen adjacent residential areas from users of the canal trail. Species include juniper, dogwood, and viburnum. Plantings compatible with historic utilitarian (natural/non-ornamental) character of the landscape.
Holley Terminal Plantings	285.2	No	No	Unevaluated. Two large shade trees appear to be remnants of a row of street trees that bordered west side of the terminal area (1959 aerial). No documentation on origin of herbaceous bed in center of terminal area.
Hulberton Dock Area Plantings	288.4	No	No	Unevaluated. Iris and lilac plantings on side of lift bridge tower; one mature Norway maple tree. No documentation on origin.
Buildings and Structures				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Bank Armor (wash walls, embankment riprap)	Continuous	No	CIMS	Contributing. Sections replaced, some with different types of stone rip-rap.
Bridges, Girder --Fancher Road --NY 31/West Ave --NY 31/Redman Road --Sweden Walker Road	Multiple	Yes	CIMS, NYSDOT BIN#	Non-Contributing (post-1963)
Bridges, Lift --Hulberton --Holley --Main Street, Brockport --Park Avenue, Brockport	Multiple	Yes	CIMS, NYSDOT BIN#	Contributing
Bridges, Through-truss --Groth Road --Telegraph Road --Bennetts Corner Road --Smith Street	Multiple	Yes	CIMS, NYSDOT BIN#	Contributing
Culverts #57-71	Multiple	No (mentioned in documentation)	CIMS	Contributing. Culverts not visible from canal; some headwalls are visible from the trail.
Erie Canalway Pavilions, Brockport and Holley	283.9	No	GPI Trail Data	Non-Contributing (post-1963).
Guard Gate -12 (Brockport) -13 (Holley)	281.6 284.2	Yes	CIMS	Contributing

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY) **LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT**				
Guide Structures (dolphin) --Guard Gate 12 E/W --Guard Gate 13 E/W --North Main Street Bridge --NY 31 Bridge	Multiple	No	CIMS	Contributing / Non-contributing (dolphins at non-historic girder bridges post-date 1963)
Harvester Park Welcome Center (Brockport Terminal Area)	278.8	Yes (Visitor Center)	No	Non-contributing.
Hulberton Canal Shops Buildings (3): See Adjacent Landscapes (Outlying state canal lands). Outside NHL boundary.				
Sans Souci Park Boat Launch and Dock	283.9	No	GPS Trail Data	Non-contributing (post-1963)
Sheds - Holley Terminal --Brockport Park Avenue LB	285.3 280.6	No	CIMS	Non-Contributing (post-1963)
Walls, Dock --Hulberton --Holley --Brockport	Multiple	No	CIMS	Contributing
Walls, stone rubble (Hulberton area)	287-289	No	CIMS	Contributing. Laid-up, mortared stone walls along prism appear to date to historic period; may be former dock walls for adjacent private land and quarries.
Walls, Terminal --Brockport --Holley	Multiple	Yes	CIMS	Contributing. Brockport wall cut down for recreational boat use.
Waste Weir and Spillways --Brockville --Old Erie Canal (Holley Loop) --Holley	287.71	Yes	CIMS	Contributing.
Constructed Water Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Barge Canal Prism	Continuous	Yes	CIMS	Contributing
Turning Basin, West Canal Road	283.1	No	No	Contributing. Original to Barge Canal construction.
Views and Vistas				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Breach Pond View (north of Holley)	286.5	No	No	Contributing. Area of widewater formed pre-1963 that allows for expansive outward views from canal and canalway trail.
East Avenue Lift Bridge at Holley Canal Park	283.0	No	No	Contributing. Village scene with lift bridge as focal point. Ornamental features in Holley Canal Park detract from historic character of the view.
Hometowne Energy (west of Brockport)	282.0	No	No	Contributing. A suburban canal-related industrial site (fuel oil depot) dating to the latter period of significance when fuel oil was the major commodity on the canal.
Main Street Lift Bridge and Downtown Brockport	279.0	No	No	Contributing. View of downtown commercial district from canalway trail with tow-

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

				path era and later buildings; 5 Main Street and lift bridge are focal points. Largely unaltered since 1963, except for architectural changes to former warehouses along canal.
Small-Scale Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventories	Feature Contribution
Access Gates	289.3, 288.3, 285.3, 283.9, 283.6, 282.3, 280.8, 280.6, 278.5	No	GPI Trail Data	Unevaluated. Metal pipe gates that may be remnants of pre-recreational control points on canal access road (trail).
Brockport Promenade Furnishings --Benches --Bollards --Trash receptacles	280.6-280.8	No	GPI Trail Data	Non-contributing. Contemporary ornamental-style furnishings installed ca. 2000.
Canal Park Features --Picnic Tables --Grills --Benches --Light Standards --Signs --Railings	Multiple	No	Partial -GPI Trail Data (features near Erie Canalway Trail)	Non-contributing (non-historic). Located at Guard Gate 12, Hulberton Dock Area, Holley Terminal Area, San-Souci Park (part of permitted area?), and Brockport Terminal Area (part of permitted area--Harvester Park).
Culvert Markers	Multiple (see culverts under Buildings & Structures)	No	GPI Trial Data	Unevaluated. Yellow-painted metal signs along access road (Erie Canalway Trail) at culverts; contains the culvert number welded on the sign plate. Date of origin not determined.
Culvert Markers – Presumed abandoned Culvert (3)	285.8, 286.6. 288.4	No	GPI Trail Data	Unevaluated. Yellow-painted concrete posts (bollard) along access road (Erie Canalway Trail). Presumed to be old style of culvert marker that was retained at abandoned culverts (e.g., 286.6 at abandoned culvert at breach pond). Date or original not determined.
Erie Canalway Trail Features --Benches --Plank fences --Signs --Pipe Railings at culvert/spillway bridges	Multiple	No	GPI Trail Data	Non-contributing (non-historic).
Snubbing Posts - Hulberton Dock-(3) - North Main Street Road Landing (2) - Holley Terminal (4) - Guard Gate 12 - (3)	288.5- 288.4 285.9 285.3 281.6	No	No	Contributing. Squat-style of cast-iron snubbing post (bollard) to tie down boats. All at terminal or dock walls, except those east of the North Main Street Road bridge (Holley). Distinctive historic features in the Barge Canal landscape.

TABLE 2.1 – CULTURAL LANDSCAPE INVENTORY (LANDSCAPE FEATURE INVENTORY)
LAND-CUT CANAL - NATIONAL HISTORIC LANDMARK DISTRICT

Archaeological Sites

Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Old Route 31 (County Line Road) Bridge Abutments	283.9	No	No	Unevaluated. Visible earthen abutments. Truss bridge superstructure removed after 1963; new girder bridge built on different alignment.
Abandoned Culvert at Breach Pond	286.5	No	No	Unevaluated. Not inspected due to lack of access.
Holley Loop (Entrance)	283.2	No (described in NHL)	No	Unevaluated. Filled original Erie Canal alignment repurposed as a spillway for the Enlarged Erie Canal and Barge Canal, now part of Holley Canal Park and not discernable from the Barge Canal.

HISTORIC RESOURCE SURVEY DATA (SETTING OF NHL DISTRICT)

The inventory data in this section is for occurrences (parallel to CLI landscape features) of landscape types adjacent to the National Historic Landmark (NHL) district using the Historic Resource Survey (HRS) method adapted for this pilot project. For each occurrence, table 2.2 lists: 1. Occurrence name; 2. Location (mileage along the canal); 3. Adjacency to the canal (primary or secondary); 4. Visibility from the canal (foreground, midground, or background); 5. Other inventory data on the occurrence; and 6. Evaluation of whether the occurrence contributes to the historic setting of the Barge Canal (contributing, non-contributing, unevaluated if insufficient information).

Notes about HRS data for adjacent landscapes:

- Canal mileage should correspond to the National Historic Landmark district measurements along the centerline of the canal. However, the GIS data for this was not available. Mileage in the tables thus refers to mileage along the Erie Canalway Trail, which has a different starting point (about 1-2 miles difference).
- Woodlands and hedgerows are not individually inventoried.
- Foreground visibility is defined as what is closest to the viewer on the canal or canalside trail. The viewer can easily make out details in the landscape and see clearly what the objects or structures are. The midground is when lines and objects can be identified. The background is everything in the distance, generally when details are not discernible.
- Due to the limited research scope, an evaluation of how occurrences contribute to the historic setting of the Barge Canal (compatible or incompatible) was not completed for all inventoried occurrences.
- Occurrences in some instances were evaluated as contributing to the historic setting of the Barge Canal even though they are not visible from the canal, due to proximity or historical association, or potential for visibility in leaf-off conditions.

Abbreviations:

CIMS – Canal Infrastructure Management System (NYS Canal Corporation)
GPI Trail Data – Empire State Trail Inventory
n/a – Not available
NHL – National Historic Landmark (Barge Canal historic district district)
NR – National Register of Historic Places
NYSCC – New York State Canal Corporation (GIS data, PROP ID—Property Identification #)
NY CRIS: New York State Historic Preservation Office, Cultural Resource Information System
USN: Unique Site Number assigned to properties in NY CRIS.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Outlying State Canal Land

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canal Borrow Pit Tract, West Canal Road	282.8	Secondary	Not visible	NYSCC GIS Prop ID 1097	Contributing. Part of larger setting, visibility from canal blocked by woods between West Canal Road and canal. Tract presently wooded but was open field in 1959. See also Archaeological resources.
Culvert 61 Discharge Tract (presumed), Town of Sweden	282.9	Primary	Foreground (edge of woods)	NYSCC GIS PROP ID 5774	Contributing. Wooded tract north of turning basin near culvert 61 acquired after 1910. Presently wooded, was half wooded, half field in 1959.
Culvert 71 Discharge Area Tracts (Flooded Quarries), Town of Murray	289.5-289.7	Secondary	Background	NYSCC GIS	Contributing. Former Orleans County Quarry Company quarries north and south of Canal Road. See also Waterbodies and Wetlands.
Discharge Tracts – Flowage Easements (approximately 18)	Multiple	Primary	Foreground (may be edge of woods, hedgerows, field)	NYSCC GIS	Unevaluated. Multiple privately or municipally owned tracts in which state canals owns easements to allow flowage from the canal. Part of current canal operations; history of tracts not documented.
Hulberton Shops Area	288.5	Primary	Foreground to background	CIMS	Contributing. Area accessed from Hulberton Road, south of canal, outside of NHL district (not addressed in documentation). Not part of original development of the Barge Canal but appears pre-1963. Includes dock wall along canal (NHL district).
Old Erie Canal Tract across from Guard Gate 12, Village of Brockport	281.6	Secondary	Foreground (edge of woods)	NYSCC GIS Prop ID ?	Contributing. Presently wooded and was wooded in 1959. See also Archaeological Resources.
Spillway and East Branch Sandy Creek Tracts, Village of Holley	285.0	Primary	Midground or not visible from canal.	NYSCC GIS PROP ID 4452	Contributing. Permitted to Village Holley for use as public park. See also Waterbodies and Wetlands, Parks, and Conservation Areas.

Woodland, Hedgerow

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canalside Woodlands	Multiple locations	Primary	Foreground	N/A	Contributing and non-contributing (compatible). Although most of the existing

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					woodlands were not present during the historic period, deciduous woodlands were characteristic of the canal's historic setting. Their growth has changed the open spatial character and views that existed historically along the canal.
Canalside Hedgerows	Multiple locations	Primary	Foreground	N/A	Contributing and non-contributing (compatible). Hedgerows were characteristic of the historic period, although most existing hedgerows post-date 1963. Some hedgerows and other wooded margins screen post-historic development, such as suburban residential development.
Waterbody, Wetland					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Breach Pond (Widewaters)	286.5	Primary (state canal land)	Foreground to midground	CIMS?	Contributing. A large pond that most likely formed after failure of the south canal embankment between Telegraph and Lynch Roads prior to 1944 (USGS Holley 1944). Prominent area of open water visible from the canal; possibly used historically as turning basin. Within state canal lands, but outside of NHL boundary.
Canal Borrow Pit Pond, West Canal Road (Bochorski and Cottrell Properties)	282.80	Secondary	Not visible	NYSCC GIS (Barge Canal Lands)	Contributing. See Archaeological Resources.
Canal Borrow Pit Pond, West Canal Road (Hugelmaier Property)	n/a	Secondary	Not visible	NYSCC GIS (Barge Canal Lands)	Contributing. See Archaeological Resources.
East Branch Sandy Creek (O-neh-chi-geh)	285.05	Primary	Not visible	No	Contributing. Major tributary in pilot area that flows northeast into Lake Ontario; intersects canal at Holley in a ravine. Not visible from canal due to wooded canal embankments and wooded banks, but part of a historic natural system that shaped the topography and alignment of the canal.
Flooded Quarries, Hulberton Area	288.0	Primary and Secondary (private and state canal lands)	Background	n/a	Contributing. See Archeological Resources.
Hanson Aggregates Swamp	287.30	Primary	Foreground to midground	n/a	Non-contributing (compatible). A large swamp west of Groth Road

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					characterized by snags that was farm fields and woods prior to 1960. Swamp may have formed due to canal seepage or change in water table from flooded quarry to the west. Wetland extends to edge of south canal embankment.
Holley Canal Falls and Stilling Pool	284.95	Primary (state canal land)	Not visible	Not part of NHL district but described in document ation.	Contributing. Although screened from the canal by woods, the Holley Canal Falls and Stilling Pool are a historic part of the enlarged Erie Canal and still function as part of a spillway from the Barge Canal into East Branch Sandy Creek. State owned but permitted to Village of Holley as part of Holley Canal Park.
Agricultural Field, Orchard					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Town of Murray (Hulberton-Holley area) – South of Canal					
Oliver-Vendetti Farm Fields (3406 Fancher Road, Holley)	288.0	Primary	Background	No	Contributing. These fields are significant open space and have not undergone significant change in extent since the historic period. They are partly open to the canal, but views are obstructed by elevation. Woods on canal spoil berms along the border existed historically.
Germeo Farm Fields (Fancher Road, Holley)	289.6	Primary	Midground	No	Contributing. These fields remain important open space but have changed since the historic period due to decrease in the extent, loss of a large orchard, and growth of woods along the canal that screen views.
Penna Farm Fields (Telegraph Road, Fancher)	289.3	Primary	Not visible.	No	Contributing. These fields remain important open space but have changed since the historic period due to decrease in the extent, loss of a large orchard, and growth of woods along the canal that screen views. These fields are on a rise above the canal, so are less visible.
Anthony Piedimonte Farm Fields (Groth Road, Holley)	287.20	Primary	Background	No	Contributing. These fields remain important open space but have changed since the historic period with minor decrease in extent, addition of buildings back from the canal, and growth of woods along the canal that screen views.
James Piedmonte and Sons Farm Fields (16616	286.60	Primary	Foreground to background	No	Contributing. This large farm remains important open space. It has changed since the historic

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Telegraph Road, Holley)					period due to the loss of orchards, conversion of a canal-side field to domestic landscape, addition of buildings and a cell tower, and growth of woods along the canal. The field immediately south of Telegraph Road is the only large farm field in the pilot area that is open to the canal.
Yunus Field (16827 Lynch Road, Holley)	286.03	Primary	Foreground to background	No	Contributing. This field remains important open space, but was part of a larger farm that changed since the historic period due to conversion to woods, schools, and residential development. The field is open to the canal near the N. Main Street guard gate.
McAlister Farm Field (North Main Street, Holley)	285.7	Primary	Foreground to midground	No	Non-contributing. This field across from the Holley schools is a remnant of a larger farm that has been subdivided and undergoing residential development. A portion of the field is screened from the canal by a border of woods.
Herring Farm Field (17257 Brockport Holley Road/NY 31, Holley)	2834.0	Primary	Background	Part of Orleans County Agricultura l District	Contributing. This farm field remains important open space. It has changed since the historic period due to minor reduction in extent, conversion of orchards to cropland, and growth of woods along the canal that screen views.
Town of Murray (Hulberton-Holley area) – North of Canal					
Zingler Farm Fields (Groth Road, Kendall)	287.20	Primary	Background	No	Contributing. This field has not changed substantially since the historic period and remains mostly screened from the canal by woods.
Strong Farm Fields (16738 Telegraph Road, Holley)	286.50	Secondary	Background and not visible	No	Contributing. These fields remain important open space but have changed since the historic period through conversion to woods and growth of woods along the canal. The field south of Telegraph Road is visible from the canal through a hedgerow. A second field to the south was visible from the canal historically but is now blocked by woodlands.
Machamer Farm Fields (3733 Hurd Road, Holley)	285.65	Primary	Background	Part of Orleans County Agricultura l District	Contributing. The large northern field and smaller southern field remain important open space but have changed since the historic period through growth of woods along the canal that screen views. An orchard is not visible from the canal.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Liese Farm Field (17100 Gulf Road, Holley)	284.50	Primary	Background	No	Contributing. This farm field remains important open space but has changed since the historic period due to reduction in extent and growth of woods along the canal that screen views.
Quaranto Farm Fields (17292 Gulf Road, Holley)	284.25	Primary	Not visible.	No	Contributing. These fields are remnants of a larger farm that has become more forested since the historic period, but still convey historic open space. The field was visible form the canal historically but is today blocked by woodlands.
Town of Sweden (Brockport area) – South of Canal					
Toepper Farm Field (8459 W. Canal Road, Brockport)	283.5	Secondary	Midground	No	Contributing. Field is remnant of larger farm that faces canal across W. Canal Road; contains historic-period farmhouse facing canal; eastern part of field subdivided for two residential lots.
Town of Sweden (Brockport area) – North of Canal					
Kreher Brothers Farm Fields (670 East Avenue, Brockport)	279.0	Primary	Foreground to Background	Part of Monroe County Agricultura l District	Contributing. Large farm field that is open to the canal or lightly screened by hedgerow trees; on a rise above the canal. Contained orchards during the historic period that are now gone.
Sodoma Farm Fields (3977 Sweden Walker Road, Brockport)	278.80	Primary	Background	No	Contributing. Farm fields and tree nursery lightly screened from canal by hedgerows, on a rise above the canal. Portions of the historic limits of the field adjacent to the canal are now woodlots, and orchards have disappeared.
Farmstead, Rural Residential Property					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Town of Sweden					
West Canal Road (Old Route 31), #8537 Brockport Miner-Noble Farmstead	283.60	Secondary	Foreground	n/a	Contributing. J. E. Miner farm (1910 Barge Canal Location Map & Profile) Intact two-story mid-19th century gable-front and ell farmhouse with two barns facing canal across old Route 31 at site of bridge #111. Associated farm fields subdivided and wooded.
West Canal Road, #8227, Brockport Bochorski House	282.90	Secondary	Not visible	n/a	Contributing. Mid-19th century two-story five-bay Medina sandstone farmhouse facing canal, screened by post-1960 woods along canal. Associated farm fields subdivided or

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
West Canal Road, #8377, Brockport Maier House,	283.10	Secondary	Not visible	n/a	Contributing. Altered 19th century 1.5-story side-gable frame farmhouse facing turning basin and screened by post-1960 woods along canal. Associated farm fields subdivided or wooded post-1960.
West Canal Road, #8459, Brockport Toepper Farmhouse	283.40	Secondary	Foreground	n/a	Contributing. Altered mid-19th century 1.5-story side-gable farmhouse in open field adjacent to canal. Main barn gone. Setting has changed due to nearby residential development.
Town of Murray					
Canal Road, #16055, Hulberton Piedmont House, 16055	289.20	Secondary	Foreground	n/a	Contributing. John Piedmont property (1910 Barge Canal Location Map & Profile) Late 19/early 20 century house facing canal with high visibility due to location at bend in canal.
Fancher Road Canal Crossroads: #3380: C. Damico House #3406: Charles Hart Farmstead #3403: D. H. Balcom Farmstead	289.70	Primary	Midground	NY CRIS USN 07307.000 56 (3403 Fancher Road), National Register eligible	Contributing. Cluster of three 19th century houses adjacent to Fancher Road bridge (1910 Barge Canal Location Map & Profile) #3380: Altered late 19th/early 20th c. house on historically small lot (1910), level with canal trail. #3406: Intact gable-front-and-ell mid-19th c. farmhouse with barns, on rise and visible from canal. #3403: Altered early 19th-c. Federal-style farmhouse with portico; main barn gone, house on rise, obscured from canal by successional vegetation. A fourth building (hotel) at the northeast quadrant was removed following completion of the Barge Canal (see Archaeological Resources).
Hamlet					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Hulberton					
Canal Road	289.00	Primary	Foreground	No	Contributing. East-west spine of hamlet along north side of canal. Access to canal terminal.
Canal Road, #16239–16142, Houses	289.00	Secondary	Background or not visible	No	Unevaluated. 13 houses along Canal Road where it veers north of the Barge Canal; several predate 1910. Deep rear yards, mostly wooded, extend to canal.
Canal Road, #16251, House	288.50	Secondary	Midground	No	Contributing. Gable-front house, pre-1910, with large garage wing.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Canal Road, #16271, House	288.50	Secondary	Foreground	No	Contributing. Two side-by-side gable-front two-story houses, pre-1910.
Canal Road, #16275, House	288.45	Secondary	Foreground	No	Contributing. Two-story gable-front house, ca. 1900. Adjacent shop extant in 1910 gone.
House, #16246 Canal Road	288.50	Primary	Foreground	No	Contributing. 19th-century house, rear adjacent to canal trail. Several outbuildings.
House, #3396 Hulberton Road	288.40	Primary	Foreground	No	Contributing. 1.5-story side-gable 19th century house with modern detached garage.
Hulberton Road (CR 24)	288.40	Primary	Midground	No	Contributing. Two-lane road, north-south spine of hamlet and carried by canal lift bridge. Bluestone sidewalk south of bridge.
Hulberton Road, #3383, House (along Canalway Trail)	288.35	Primary	Foreground	No	Contributing. Gable-front and ell 19th century house, faces canal and below canal embankment. Vacant.
Hulberton Road, #3383, Store	288.40	Primary	Foreground	NY CRIS, USN 07307.000 44 / #16188	Contributing. Two-story frame flat-roof store, ca. 1890, off northeast corner of lift bridge. SHPO determined not National Register eligible, but without consideration of a district.
Hulberton Road, #3384, Multi-Unit House and Garage/ Warehouse	288.40	Secondary	Foreground	No	Contributing. Large two-story seven-bay flat-roof frame house with bracketed eaves, ca. 1880, off northwest corner of lift bridge, and ca. 1920 garage/warehouse facing Canal Road.
Hulberton Road, #3395, House	288.40	Primary	Foreground	No	Contributing. Two-story gable-front house on Medina sandstone foundation, ca. 1870-1900. Similar house to the south.
Village					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Village of Brockport					
Clinton Street Historic District (State and National Register eligible)	280.8	Primary	Foreground to Midground	NY CRIS: USN:05541.00069, -319, -320, -321, 322, -323, -324, -502, -503, -504	Contributing. 10 contributing properties, adjacent to Agricultural Works warehouses. #50 and #80 Clinton Street back up to canal. Period of significance: ca. 1830-1945.
Main Street Historic District (State and National Register listed)	280.7	Primary	Foreground to background	NY CRIS: NR:03NR05158	Contributing. Historic commercial core of village. 49 contributing resources. Period of significance: ca. 1830-1955. 5 Main Street, a three-

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

--5 Main Street				Brockport designated landmarks	(present Custom House restaurant) a prominent landmark along the canal.
Main Street, #2-6	280.7	Primary	Foreground	No	Non-contributing. One-story commercial and 2-story rear residential buildings, post-1963. Outside historic district, but prominent along canal. Replaced historic building similar to #5 Main Street.
Market Street, #33-52	280.5	Primary and Secondary	Foreground to background	No	Unevaluated. Altered one-story commercial/industrial building along canal and altered 19th-century residential buildings across street, plus parking lots and ca. 1970 large fire house. Part of historic village context of Barge Canal, but substantially changed since 1963. West end of Market Street within Main Street National Register district.
Merchant Street, #38-41, Former Industrial/ Commercial Canalside Buildings	280.5	Primary	Foreground	No	Non-contributing (compatible). Red Jug Pub and Stoneyard Brewing Company face onto canal; both buildings new or substantially altered.
North Main Street, #7	280.7	Primary	Midground	NY CRIS: 03NR05158	Non-contributing. Overgrown vacant lot northwest of Main Street lift bridge, building included in Main Street National Register district gone.
Park Avenue, #5	280.5	Primary	Foreground	NY CRIS: USN 05541.000276 (unevaluated)	Contributing. Large two-story flat-roof Medina sandstone industrial building converted to commercial uses. Abuts canal at southeast corner of Park Avenue lift bridge.
Park Avenue-State Street Historic District (State and National Register listed)	280.5	Secondary	Background	NY CRIS: 15 NR00033	Contributing. Houses in district along Park Avenue visible from canal lift bridge and trail. 91 contributing resources. Period of significance: ca. 1820-1930.
Water Street	280.7	Secondary	Midground	No	Contributing. Narrow curving road that provided access to the Barge Canal Brockport Terminal. West end within Main Street NR district. Lined mostly by parking lots.
Whiteside, Barnett & Co. Agricultural Works, 60 and 70 Clinton Street (State and National Register listed)	281.0	Primary	Foreground	NY CRIS: NR:99NR01462 USN:05541.000194 USN:05541.000005 Brockport designated landmarks	Contributing. Stone warehouses fronting on the canal. Built ca. 1823. 2 resources. Period of significance: n/a. Within National Register-eligible Clinton Street Historic District.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Village of Holley					
East Avenue (#29-32)	285.3	Secondary	Midground	No	Contributing. Detached 19th and early 20th century houses on north end of East Avenue that face former canal lands (Holley Canal Park) near the canal. Part of village residential context, on street that veers away from the canal.
East Avenue, #49	285.3	Primary	Foreground	No	Contributing. Altered two-story presumed mid-19th century frame house with two-story portico, all exterior details of recent origin. Although heavily altered, house retains general character and is in prominent site adjacent to the East Avenue lift bridge. Two large cottonwoods on south property line adjacent to canal trail.
East Union Street (#2-6)	285.3	Secondary	Foreground	No	Contributing. Detached 19th and early 20th century houses that face Holley terminal area or are adjacent to the canal. Part of village residential context.
Perry Street (#2-9)	285.3	Secondary	Midground	No	Contributing. Detached 19th and early 20th century houses on block perpendicular to canal. Part of village residential context.
Suburban Residential Area					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Village of Brockport (North of Barge Canal)					
Evergreen Road (#175-247)	281.4	Primary	Background	No	Non-contributing (compatible). Ca. 1970 development; farm field during historic period; rear side of houses close to trail but mostly screened by woods on private properties.
Carolin Drive (#1-6)	281.2	Primary	Not visible	No	Non-contributing (compatible). Street and northern houses built by 1959; houses at south end of drive later; close to trail but separated by embankment woods.
Havenwood Drive (#59-63), Meadow Lane (#3-11), Cloverwood Drive (#46), and McCormick Lane (under construction)	279.8	Primary	Midground	No	Non-contributing (incompatible). Large new subdivision; farm fields historically; close to trail and not separated by woods since removal of embankment woods.
Quarry Street (#38-54) and Locust Street (#1)	280.0	Primary	Midground	No	Non-contributing (compatible). Post-1960 development along pre-1960 street; end house dates to historic

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					period; houses close to trail and not screened since removal of embankment woods; extension of village area.
Town of Sweden (South of Barge Canal west of Brockport)					
Holley Street (#392-620)	282.0	Secondary	Midground	No	Non-contributing (compatible). Mix of pre-1960 and later residential on former farmland, plus one canal-related industry; eastern end redeveloped for SUNY campus post-1960; deep lots to canal with post-1960 wooded border.
West Canal Road (#8023-8724)	283.0	Secondary	Midground	No	Non-contributing (incompatible). Large-lot post-1960 residential on former farm fields, except 19th/20th c. farmhouses at #8107, 8227, and 8377; woods along canal screen development in areas.
Town of Murray (North of Holley)					
North Main Street (#3690-3756)	286.0	Primary and Secondary	Midground	No	Non-contributing (incompatible). Former canal crossroads farmsteads subdivided post-1960; single recent house close to trail and canal snubbing posts with no screening; ongoing development in former fields south of canal partly screened by woods along canal.
Village of Holley					
East Avenue (#57) and Valley View Circle (#10-11)	285.1	Primary	Midground	No	Non-contributing (compatible). Post-1960 street and houses at base of Holley embankment, partly screened by trees/woods, extension of village area.
Suburban Industrial and Commercial Areas					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
East Brockport Industrial Park, 200-280 State Street	280.0	Secondary	Midground	No	Non-contributing (incompatible). Although visible from the canal, this industrial area was developed with no functional relationship to the Barge Canal.
Hometown Energy, 400 Holley Street, Brockport	282.0	Secondary	Midground	No	Contributing. Oil tanks and dock from historic period have been removed. Remaining buildings and structures visible from the canal.
North Main Street Commercial Strip, Brockport --22 N. Main Street	287.7	Secondary	Mid-ground to Background	No	Non-contributing. Mid-to-late 20th century commercial/professional development; some scattered village remnants (houses). #22: Two-story suburban professional building surrounding by parking. Screened from Erie Canalway Trail by trees.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Institutional Campus

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Burlingame House (SUNY Brockport College President's House, 230 Holley Street)	281.35	Secondary	Not visible.	NY CRIS: USN 05541.00 0076 (National Register eligible)	Non-contributing (not visible). The rear property of the President's House, A Greek Revival temple-form house built in 1836, extends to the canal, but views are blocked by trees and fences. The house was part of a stretch of 19th and 20th century houses, the backs of which may have been visible from the canal; most were removed in the 1960s for SUNY campus buildings and parking lots.
SUNY Brockport Campus	281.50	Primary	Foreground and Midground	NY CRIS: USN 05541.00 0470 (SUNY Brockport campus, Unevalua ted)	Non-contributing (incompatible). The SUNY campus adjacent to the canal (north of Holley Street, along with high-rises to the south) were developed after the historic period. Aside from the Tower Fine Arts Center (1967) and Mortimer Hall (ca. 1967), the portion of campus adjacent to the canal is dominated by parking lots, and there is no formal relationship between the canal and the campus.

Park, Conservation Land

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Corbett Park, Clark Street, Brockport	281.10	Primary	Not visible (developed area)	No	Non-contributing (compatible). Large village-owned park with tennis courts, playground, playing fields and a trail. Mostly screened from canal by woods. Canal spillway drains into park.
Erie Canalway Trailhead – NY 31, Brockport	282.25	Primary	Midground	No	Non-contributing (compatible). Small gravel parking area on state land bordered by wood-plank fence that connects to Erie Canalway Trail. Inconspicuous.
Evergreen Tot Lot (207 Evergreen Road, Brockport)	281.40	Primary	Not visible (developed area)	No	Non-contributing (compatible). Small village-owned park with playground, screened by woods adjacent to canal. Walk connects with Erie Canalway Trail.
Harvester Park and Brockport Welcome Center (13 Water Street)	280.70	Primary	Foreground	No	Non-contributing (incompatible). Village-owned property and permitted canal land (Brockport Terminal) with contemporary building (Visitor Center—within NHL boundary), sculpture, parking lots, signs, and trees, opened 2005. No remnant of past canal-related use.

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
Holley Canal Park, aka Glens Park (access from East Avenue, Geddes Street, and Frisbee Terrace)	285.0	Primary	Foreground to background	No	Non-contributing (incompatible). Village of Holley park occupies former state canal lands in the East Branch Sandy Creek ravine that were transferred to the Village of Holley; small area bordering canal is on state canal land permitted to the village. While the park contains historic canal-related features (remains of old Erie Canal, Holley Canal Falls), park features including Victorian-style gazebo, lights, and restrooms, along with playground, pond with water fountain, and manicured lawn within view from the canal contrast with the historic utilitarian character of the canal setting (see also Holley Dock Wall under Buildings and Structures).
Holley Fireman's Park (55 North Main Street)	285.45	Secondary	Not visible (developed area)	No	Non-contributing (compatible). Village of Holley Park adjacent to canal but screened by woods. No visual or physical access to canal. Cell tower in park (see Utility Sites and Corridors).
Sans Souci Park - Erie Canalway Trailhead (4159 County Line Road)	283.85	Primary	Foreground to midground	No	Non-contributing (incompatible). Mid-sized paved parking area and maintained ornamental landscape with pavilion managed by Town of Clarkson under canal permit. Also includes track of woods. Park design contrasts with historic utilitarian setting of canal and layout reflects post-historic realignment of County Line Road and NY 31. Boat launch within NHL district.
Transportation Corridor					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canal Road, Hulberton, Town of Murray	288.5 289.25	Primary and Secondary	Foreground and not visible in areas	n/a	Contributing. Two-lane, asphalt-paved local road that roughly parallels the Barge Canal from Hulberton west to Fancher Road. Sections set back from canal. Predates construction of the Barge Canal.
State Street - East Canal Road, Village of Brockport, Town of Sweden	279.0	Primary	Foreground	n/a	Contributing. Two-lane, asphalt-paved local road that parallels the Barge Canal east of Brockport. Predates construction of Barge Canal.
West Canal Road, Town of Sweden	282.40–283.60	Primary and Secondary	Foreground and not visible in areas	n/a	Contributing. Two-lane, asphalt-paved local road that parallels the Barge Canal west

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					of Brockport. Predates construction of Barge Canal.
Utility Site / Corridor					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canal Road Utility Lines, Hulberton/Town of Murray	289.3	Primary	Foreground	n/a	Contributing. Utility lines installed pre-1963, on wood poles along Canal Road where it borders the Barge Canal. Reflects utilitarian character of canal and its setting.
Cell Tower, Holley Fireman's Park	285.45	Secondary	Midground	n/a	Non-contributing (incompatible). Single-pole cell tower camouflaged through design as a flagpole, visible from canal above tree line for distance east and west.
Power Transmission Line Crossing Brockport 74-W. Hamlin 82 substations National Grid 100/161 kV	283.95	Primary	Foreground	Public Service Commission	Non-contributing (incompatible). High voltage transmission lines on tall steel pole towers perpendicular to canal near Monroe County line, built after 1963. Scale and design out of character with rural canal setting.
South Embankment Utility Lines, Village of Brockport	281.5	Primary	Foreground	n/a	Unevaluated. Local power line on wood poles, Smith Street Bridge west along edge of SUNY Brockport campus, crosses canal west of Guard Gate 12. Date of construction not determined.
Archaeological Resource					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canal Borrow Pit, West Canal Road (Bochorski and Cottrell Properties), Town of Sweden	282.7	Secondary	Not visible	NYSCC FID 2373, 2374 (parcels)	Contributing. 1910 Barge Canal Location Map & Profile documented large borrow pit on south side of West Canal Road where it diverges from canal west of NY 31. Presently wetland. On state canal and private residential lots.
Canal Borrow Pit, West Canal Road (Hugelmaier Property), Town of Sweden	282.95	Secondary	Not visible	no	Contributing. 1910 Barge Canal Location Map & Profile documented borrow pit on south side of West Canal Road east of turning basin. Within wooded and residential lots.
Old Erie Canal Remnants across from SUNY Brockport / Guard Gate #12	281.7	Primary	Not visible	NYSCC FID 8 (parcel)	Unevaluated. 1910 Barge Canal Location Map & Profile documented remnant of Clinton's Ditch north of Barge Canal. Presently wooded; not

TABLE 2.2 – HISTORIC RESOURCE SURVEY DATA
LAND-CUT CANAL – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					evident in aerial photograph. State canal property.
Old Erie Canal, Holley Loop	285.0	Primary	Not visible	Described in NHL documentation, Section 7, page 154.	Non-contributing (landscape setting). State and Village of Holley property. Western part of Holley Loop (Clinton's Ditch) remained watered through construction of the Barge Canal; 1910 Barge Canal Location Map & Profile documents channel and proposed spillway from Barge Canal. Existing Holley Canal Park developed over Holley Loop alignment post-1980.
Quarries, Abandoned (Flooded), Hulberton Area, Town of Murray	286.5-288.0	Secondary	Background (screened)	NYSCC Prop ID 5640; Private lands	Contributing. Series of flooded quarries between Groth and Fancher roads that in part predate the Barge Canal, most flooded by end of historic period (USGS Kendall quad, 1951). Most screened from canal by hedgerows and woodlands. Some have been acquired by state and may serve as outflow from a spillway.
Stone Foundation of Hotel, Fancher Road	289.70	Primary	Foreground	No	Contributing. Stone foundation at foot of north canal embankment east of Fancher Road visible from canalside trail. Documented as "Hotel" on 1910 Barge Canal Location Map & Profile, on Orleans County Quarry Co property. Hotel removed during historic period.

VISUAL RESOURCE INVENTORY DATA (VIEWS FROM NHL DISTRICT)

This section provides a table that summarizes the data collected for the five inventoried viewpoints in the land-cut canal pilot area, including the scenic inventory value matrix (table 2.3, below) and a summary of the findings for each viewpoint.

TABLE 2.3. VISUAL RESOURCE INVENTORY – VIEWPOINT RATINGS - LAND-CUT CANAL

VIEW-POINT #	VIEW NAME	SCENIC QUALITY RATING	VIEW IMPORTANCE RATING	SCENIC INVENTORY VALUE
1	Kirby Orchard Farm Field*	C	5	L
2	East Ave Bridge with Holley Canal Park	A	2	M
3	Breach Pond (Widewaters)	B	4	VH
4	Main Street Lift Bridge and Downtown Brockport	B	2	VH
5	Hometowne Energy	C	5	L

* Viewpoint is beyond the study section but is included to represent an agricultural view.

VIEWPOINT #1. KIRBY ORCHARD FARM FIELD*

- Scenic Quality Rating: C
- View Importance Rating: 5

Landscape Character

The landscape surrounding the viewpoint is made up of dense woodlands which obscure the agricultural fields from view when nearing the viewpoint location. Open agricultural fields once dominated the landscape surrounding the canal but have been replaced by fewer farm fields with a more enclosed feeling.

Scenic Quality

The view from the canal looking north into the Kirby Farmfield received a scenic quality score of 30. While some rural farmland elements were present, overgrowth of trees and successional plants along the canal obstructed views of farm fields and agricultural buildings, though no inconsistent elements were present. Trees along the embankment obscured the panorama of the view in places. Elements such as damaged riprap and dying ash trees detracted from the quality of present elements. The view of the field did not have any viewpoints, but bold forms, lines and colors present in the canal embankment and vegetation added interest to the viewed landscape. Field and canal elements were somewhat disruptive

of one another in their placement, causing the scale of the foreground to be disproportionately larger to the viewer. Colors were harmonious.

View Importance

The view of the Kirby Orchard Farm from the canal received a relatively low View Importance rating of 13. It is not a designated viewpoint since it was recorded from the water; trail users could also pass by without taking much notice, aside from the open space in the otherwise mostly enclosed canal corridor. The viewed landscape is known locally but is not well known or advertised. The fields and orchards are partly obscured by the level of the embankment and unmanaged successional growth, especially when viewed from near the water level. Visitor duration and sensitivity are likely low since most viewers would be boaters traveling along the canal.



Viewpoint #1: Views of Kirby Orchard Farm east of Albion from on the Barge Canal, looking northwest across the fields and orchards at the east end of the farm (left), and looking northeast at the farm buildings on the west end of the farm (right), June 2022. (SUNY ESF)

VIEWPOINT #2. EAST AVE BRIDGE AT HOLLEY CANAL PARK

- Scenic Quality Rating: A
- View Importance Rating: 2

Landscape Character

The landscape surrounding this viewpoint is characterized by low density residential buildings, some suburban development, and a large public park. The village's historic core lies beyond view, where the towpath-era canal once ran.

Scenic Quality

The view of the East Avenue Lift Bridge with Holley Canal Park received a scenic quality score of 39.5 The area had many desirable elements, but some inconsistent elements such as the dock walls lacked historical integrity due to the addition of wood decking, and ornamental park structures and furnishings, which detracted from the space's historic character. The dock wall was in disrepair, with extensive

amounts of spalling. The bridge serves as a strong and striking focal point, holding the attention of the viewer but does not prevent viewers from observing the surrounding landscape. Forms and lines within the bridge and its surrounding landscape reinforce the directionality of the viewer and add visual interest. Whites, blues, and greens of the plant life and buildings, including a house with a portico east of the lift bridge, are strong and hold viewer attention. The viewed landscape is spatially well composed and harmonious in nature.

View Importance

This East Avenue Lift Bridge view received a relatively high score, with a View Importance Rating of 32. The bridge is one of the character defining features of the village and is an excellent demonstration of the Barge Canal's historic and scenic character. The canal park has spaces for boaters to dock. The park and lift bridge are well managed and maintained by the village, allowing the space and viewpoint to feel well cared for. Signs and interpretive kiosks can be seen alongside the canal prism, and information about the area can be viewed on the internet. Boaters are welcome to stop and stay at the viewpoint if they wish to rest and/or to enjoy the scenery.



Viewpoint #2: East Avenue (Holley) Lift Bridge from Holley Canal Park looking west along timber cover over concrete canal wall (left), and looking northwest from uncovered concrete terminal wall (right), June 2022. (SUNY ESF)

VIEWPOINT #3. BREACH POND (WIDEWATERS)

- Scenic Quality Rating: B
- View Importance Rating: 4

Landscape Character

The breach pond is a basin and wetland area north of Holley in the Town of Murray, along the south/west side of the Barge Canal. It was formed by the failure of the canal embankment prior to 1944. The breach pond is framed by woodlands,

some of which are on the remaining embankments, and an open agricultural field. This landscape is distinguished by its lack of development and built structures.

Scenic Quality

The view of the breach pond received a scenic quality score of 30.5, which is just between scores required to receive either a "C" or a "B." A "B" rating was decided upon assuming that the scoring system would round up rather than down in this case. Desirable natural and rural elements were present, though overgrowth of staghorn sumac obscured views of farm fields. There was one cellphone tower in the distance which was inconsistent with the landscape character type. Some debris and overgrowth could be cleared to improve conditions of the basin and the riprap. No main focal point was present, but the forms and lines of the space added some interest. The colors of the space were fairly limited and not altogether vivid. Spatial relationship, scale, and color harmony were all present but did not add or take away visual interest.

View Importance

This view of the breach pond received a somewhat low view importance rating of 16. The viewpoint is not publicly known, marked, or publicized as a space to stop along the canalway trail, although the pond is a prominent open space along the now mostly enclosed canal corridor. It is an apparent attraction for those in small craft such as canoes. There is a private dock on the far side. Viewers from the trail probably do not stop here for a long duration, except perhaps to pick from wild cherry trees growing along the trail.





Viewpoint #3: The breach pond north of Holley from the Erie Canalway Trail looking southwest with the agricultural field and cell tower in the background (left) and looking southeast to woodlands and wetlands with two visitors in a canoe (right), June 2022. (SUNY ESF)

VIEWPOINT #4. MAIN STREET LIFT BRIDGE AND DOWNTOWN BROCKPORT

- Scenic Quality Rating: B
- View Importance Rating: 2

Landscape Character

The Main Street Lift Bridge is within the historic core of the Village of Brockport, and highlights buildings and structures from the Barge Canal's historic period. The Main Street Historic District forms the primary viewshed and contains a number of character-defining 19th century brick buildings.

Scenic Quality

The view of the Main Street Lift Bridge and downtown Brockport received a scenic quality score of 35.5. The view retains many scenic and historic structures such as the lift bridge and Main Street buildings, but the southwest side of the viewed landscape lacks desirable features (back side of modern buildings). Some inconsistent elements such as power lines and a cell tower detract from the historic character of the view. Historic structures such as warehouses are missing from the scene as well. The quality of elements is fair, with spalling present along the dock wall. The Main Street Lift Bridge and the historic town center serve as strong focal points for the space, but the cell tower pulls away some attention. Forms, lines, and colors of the bridge and town buildings add visual interest to the viewed landscape. Spatial elements in the southeast portion of the viewed landscape are well organized and scaled, but the southwest section (with modern buildings) is disproportionate and disorderly. The colors of the space are compatible and pleasing to the eye but returning the color of the lift bridge to its historic black would increase vividness and harmony.

View Importance

The View Importance Rating for the Main Street Lift Bridge and downtown Brockport is 37. The bridge is a character-defining feature pf the Barge Canal and the backdrop of historic buildings in the village reflects development patterns dating back to the original Erie Canal. The view and viewpoint are well noted and advertised both within the town and through external media. An informational kiosk is present at the viewpoint, and just to the east is the Brockport Welcome Center (Harvester Park) along the former canal terminal.



Viewpoint #4. The Main Street Lift Bridge and downtown Brockport looking south (left) and southeast (right) from the Erie Canalway Trail, June 2022. The bridge control tower, a defining feature of the view, is just off the left of the right photo.

VIEWPOINT #5. HOMETOWNE ENERGY, TOWN OF SWEDEN

- Scenic Quality Rating: C
- View Importance Rating: 2

Landscape Character

The landscape framing the Hometown Energy industrial site, located just east of the Village of Brockport, is a mixture of unmanaged wooded areas and low-density residential housing.

Scenic Quality

The view of Hometowne Energy received a scenic quality score of 25. Some desirable landscape character elements for a canal-related industrial landscape were present, though they clashed with the surrounding suburban scenery. Quality of elements was somewhat fair with dying grasses, overgrown riprap, and rusted steel. The industrial structures act as focal points for the scene but poorly retain the focus of the viewer. The whites, greens and reds of the landscape were bold but not distinguished. Elements of the viewed landscape seem somewhat disorganized and do not follow any discernible pattern. Scale of the features seems somewhat out of proportion, with the framing foliage being nearly as dominant as the industrial space. Colors were incompatible with the surrounding landscape, seeming out of place and even abrasive.

View Importance

The Hometowne Energy viewpoint received a View Importance Rating of 14. No interpretive services or viewpoint publicity are present for this location, though a window of trees is kept cleared and maintained. The industrial facility being viewed advertises its services and may be viewed online, but without interpretive signage, the public would not readily recognize this as an important view. This suburban industrial site existed within the period of significance as an oil depot along the canal.





Viewpoint #5. Hometowne Energy west of Brockport from the Erie Canalway Trail, June 2022; detail at right. (SUNY ESF)

3. CANALIZED RIVER PILOT AREA INVENTORY DATA

This chapter contains landscape inventory data collected within the canalized river pilot area (Lock E-13 to St. Johnsville Terminal, Montgomery County) using the Cultural Landscape Inventory method for the Barge Canal National Historic Landmark (NHL) district, the Historic Resource Survey method for the setting of the NHL district, and the Visual Resource Inventory method for views from the NHL district. This data is not complete or final. It reflects the pilot scope and limited research undertaken for this project. The primary purpose of this data is to illustrate results of the pilot inventory methods.

CULTURAL LANDSCAPE INVENTORY FEATURE DATA (NHL DISTRICT)

The inventory data in this section is for landscape *features*, which are distinct resources associated with broad patterns defined as landscape *characteristics* in the NPS *Guide to Cultural Landscape Reports* (see chapter 1 for findings on landscape characteristics). For each landscape feature, data collected included: 1. Feature name; 2. Location—mileage along the canal); 3. Whether the feature is a NHL resource (Building, Structure, Object, Site); 4. If the feature is captured in a New York State Canal Corporation or NYS Department of Transportation inventory; 5. Evaluation of how the feature contributes to the historic character of the Barge Canal landscape (contributing, non-contributing, or unevaluated if insufficient information is available). The narrative description of each landscape characteristic and how it has changed since the historic period

Notes about the NHL district inventory data:

- Canal mileage should correspond to the National Historic Landmark district measurements along the centerline of the canal. However, the GIS data for this was not available. Mileage in the tables for non-NHL documented resources thus refers to mileage along the Erie Canalway Trail, which has a different starting point (about 1-2 miles difference).
- Features already inventoried in the National Historic Landmark documentation as resources do not include an explanation of how they contribute to the historic character of the Barge Canal.
- For the New York State Canal Corporation inventories (Canal Infrastructure Management System, GPI Trail Data), only a general reference to the source is provided for each landscape feature (NHL district inventory). Due to limited scope of this project, correlation with a specific NYSCC inventory unit (STRUCTURE ID and FID) was not specified.

- Non-historic Small-Scale Features (mostly related to Erie Canalway Trail and park areas) are grouped according to type or location.
- Due to the limited project scope, an evaluation of how features contribute to the historic character of the Barge Canal (compatible or incompatible) was not completed for all inventoried features. This information is important to inform future management.

Abbreviations:

BIN – Bridge Identification Number (NYSDOT)
CIMS – Canal Infrastructure Management System (NYS Canal Corporation)
GPI Trail Data – Empire State Trail Inventory
NHL – National Historic Landmark (Barge Canal historic district district)
NYSCC – New York State Canal Corporation
NYSDOT – New York State Department of Transportation
n/a – Not available

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY)
CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT

Natural Systems and Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Riverbank Woods	Multiple	No	CIMS (Embankment Integrity Program)	Contributing and Non-Contributing. Many of the woods along the canal/river banks grew up after 1963. Bank riprap not presently maintained. Woods alter the historic open spatial character of the canal landscape in areas, but is compatible with the overall historic wooded setting.
Mohawk River	Continuous	No (but part of canal)	CIMS	Contributing. Character-defining feature of the Barge Canal landscape.
Abeel Island	67.7-68.4	No	No	Contributing. Long, wooded state-owned island in Mohawk River west of Fort Plain.
Spatial Organization				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Canajoharie Terminal Area -Riverfront Park: Outside NHL boundary (terminal wall within). See HRS inventory Data, Park and Conservation Land.				
Lock E-13 Grounds (Mohawk Valley Welcome Center Area)	53.1	No	No	Contributing. The grounds of Lock E-13 are still discernable, extending from the lock chamber south to the powerhouse near the Thruway, but the area has been substantially altered through redevelopment as a Thruway rest stop.
Lock E-14 Canal Park Area	61.0	No	No	Contributing. Park established post-1963, but maintains open space on island that existed historically; more enclosed today due to growth of trees along edges.
Lock E-14 Lock Grounds	61.0	No	Yes	Contributing. Maintained landscape area along lock chamber, lock house, and access road. Expanded in area with addition of adjacent canal park post-1963.
Lock E-15 Canal Park: See HRS Inventory Data, Park and Conservation Land (mostly outside NHL District)				
Lock E-15 Lock Grounds	64.0	No	No	Contributing. Maintained landscape area along lock chamber, lock house, and access road. Expanded in area with addition of adjacent canal park post-1963.
St. Johnsville Terminal Area (Municipal Marina Area): Outside NHL boundary (terminal wall within). See HRS Inventory Data, Park and Conservation Land.				
Land Use				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Lock E-14 Canal Park	61.0	No	No	Non-contributing. Recreational use of island on south side of lock chamber introduced post-1963.

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY) **CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT**				
Lock E-15 Canal Park	64.0	No	No	Non-contributing. Recreational use of area west of lock chamber introduced post-1963.
Nelliston Boat Launch (DEC)	63.7	No	State agency agreement	Non-Contributing.
NYS Thruway Mohawk Valley Welcome Center	53.1	No	State agency-authority agreement	Non-contributing. Permitted/granted area on Lock E-13 grounds.
Village of Canajoharie Permit – Canajoharie Terminal Area / Riverfront Park	60.5	No	NYSCC permit	Non-contributing. Recreation use introduced post-1963 on former terminal area. Extends beyond NHL boundary.
Village of St. Johnsville Permit – St. Johnsville Terminal / Municipal Marina	69.4	No	NYSCC permit	Non-contributing. Recreation use introduced in 1956 on former terminal area. Although this change in use occurred during the historic period, it is unrelated to the significance of the Barge Canal. Extends beyond NHL boundary.
Water Trail Boat Launches	Multiple	No	n/a	Non-Contributing.
Vegetation				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Lock E-13 Lock House Herbaceous Beds	53.12	No	No	Unevaluated. Date of origin not determined. Plantings are consistent with lockkeeper tradition.
Lock E-13 Powerhouse Norway Spruce Grove	53.12	No	No	Contributing. Large, mature trees; windbreak (on north side of building), typical planting at powerhouses.
Lock E-14 Canal Park Cottonwood Trees	61.0	No	No	Contributing. Pre-date 1963, probably as volunteers.
Lock E-14 Access Road Trees	61.0	No	No	Non-contributing (post-1963).
Lock E-14 Canal Park Walnut Row	61.0	No	No	Non-contributing (post-1963). Trees alter historic open spatial character.
Lock E-14 Arborvitae Windbreak	61.0	No	No	Contributing. Planted pre-1963 as windbreak hedge along north side of grounds adjacent to railroad. (visible on 1959 aerial).
Lock E-15 Specimen Maples	64.0	No	No	Contributing. Two large, mature sugar maples in present picnic area, date of origin pre-1963 not known. Appear to be on 1959 aerial.
Lock E-15 Powerhouse Norway Spruce Grove	64.0	No	No	Contributing. Large, mature trees; Contributing. Large, mature trees; windbreak (on north and west sides of building), typical planting at powerhouses.
St. Johnsville Municipal Marina (Terminal) Trees	69.4	No	No	Non-contributing. Detract from utilitarian character of terminal area.
Riverfront Park (Canajoharie Termina)l Trees and Shrubs	60.5	No	No	Non-contributing. Detract from utilitarian character of terminal area.

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY)
CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT

Circulation				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Access Roads --Lock E-13 South (from NY 5S) --Lock E-13 Dam E9 North (from NY 5) --Lock E-14 (Spring Street) --Lock E-15 -Canajoharie Terminal (Riverfront Park) --St. Johnsville Terminal (Municipal Marina)	Multiple	No	CIMS	Contributing. E-13 access road bisected by Thruway off-ramp. Canajoharie Terminal access road redesigned as part of Riverfront Park. Spring St. north of railroad released to municipal ownership.
Lock E-14 Access Road (Spring Street) Sidewalk	63.4	No	CIMS?	Unevaluated.
Lock Sidewalks --E-13 --E-14 --E-15	Multiple	No	CIMS?	Contributing (concrete walks along lock chambers and to buildings), Unevaluated (other sidewalks) Additional research needed to evaluate other walks.
NYS Thruway Ramp (Mohawk Valley Welcome Center Entrance Drive)	55.4	No	No	Non-contributing.
Public Parking Areas --E-13 --E-14 --E-15 --St. Johnsville Terminal (Municipal Marina) --Canajoharie Terminal (Riverfront Park)	Multiple	No	CIMS? Village facilities	Non-Contributing. Small parking areas existed for canal staff pre-1963, but larger current lots reflect public recreational use.
Riverfront Park Walks (Canajoharie Terminal)	62.8	No	No	Non-contributing. Alignment and ornamental pavement incompatible with historic utilitarian character of Barge Canal.
St. Johnsville Municipal Marina (Terminal) Walks	69.4	No	No	Non-contributing. Concrete sidewalk along access road and concrete/asphalt along terminal wall, presumed municipal additions.
Topography				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Embankment - West of Lock E-16	071.0-071.2	No	CIMS	Contributing.
Additional survey needed to identify other historic topographic features				
Buildings and Structures				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Boat Launch --St. Johnsville Marina	69.4	No	CIMS	Non-contributing. Recreational structure possibly built pre-1963, but unrelated to significance of Barge Canal.

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY) **CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT**				
Bridges, Girder --NY 10 (Canajoharie) --Bridge Street CR61	Multiple	Yes	CIMS, NYSDOT BIN#	Non-contributing.
Bridges, Truss --NY 80 (Fort Plain)	66.3	Yes	CIMS, NYSDOT BIN#	Contributing.
Culverts (locks)	Multiple	Yes	CIMS	Contributing.
Garage --E-15	66.9	Yes	CIMS	Unevaluated (NHL: non-contributing; appears to pre-date 1963; vinyl sided).
Guide Walls --Lock E-13 --Lock E-14 --Lock E-15	Multiple	No	CIMS	Contributing.
Lock Cabinas --E-13 (2) --E-14 (2) --E-15 (2)	Multiple	Yes (part of locks)	CIMS	Contributing.
Lock Electrical Control Cabinets --E-13 (1) --E-14 (2)	Multiple	No	CIMS	Contributing.
Lock Chambers --E-13 --E-14 --E-15	Multiple	Yes	CIMS	Contributing.
Lockhouses --E-13 --E-14 --E-15	Multiple	Yes	CIMS	Contributing (E-14), Non-contributing (Lock E-13, E-14, post-1963).
Lock E-15 Canal Park Sheet Piling Retaining Walls	67.1	No	CIMS?	Non-contributing. May date to improvement of canal park, post-1963.
Mohawk Valley Welcome Center Building	53.1	No	Unevaluated	Non-Contributing (post-1963) In style of Barge Canal terminal freight house.
Moveable Dams and Spillways --#9, E-13 --#10, E-14 --#11, E-15	Multiple	Yes	CIMS	Contributing.
Powerhouses --Lock E-13 --Lock E-14 --Lock E-15	Multiple	Yes	CIMS	Contributing.
Riverfront Park (Canajoharie Terminal) Buildings and Structures --Floating dock --Pavilion --Pergolas --Retaining walls/seat walls	62.9	No	No	Non-contributing. Post-1963 features that detract from the historic utilitarian character of the Barge Canal (permitted area).
St. Johnsville Terminal Buildings --Marina Shop --Shed --Lighthouse	69.4	No	No	Non-contributing. Post-1963 buildings within former terminal area. Municipally maintained (permitted area).

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY)
CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT

Sheds --E-13 --E-14 Storage --E-15 Storage	Multiple	Yes	CIMS	Non-contributing (post-1963)
Terminal Walls - Canajoharie - St. Johnsville	60.55 69.4	Yes	CIMS	Contributing. Include ladders integral with walls.
Tributary Mouth Reinforcement	Multiple	No	No	Unevaluated. Stonework at mouth of creeks where they meet the Mohawk River. Not field checked to determine if still extant (part of original construction). Not visible during navigational season.
Washwalls (bank armor or riprap)	Continuous	No	No	Contributing. Not visible during navigational season. Not maintained.
Views and Vistas				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
St. Johnsville Marina (Terminal)	70.0	No	No	Contributing. View from terminal across terminal basin and Mohawk River to wooded hillsides; changes since 1963 include loss of open fields on hillsides, and addition of recreational features in the fore-and-mid ground.
Mohawk River and Canajoharie from Lock E-14 Canal Park	60.9	No	No	Contributing. View from field of canal park (island) with river, moveable dam, Thruway in foreground; village rooftops in midground; and wooded ridge in background. No apparent major changes since 1963.
Downriver View Near Sprakers	57.5	No	No	Contributing. View east with wooded banks and wooded ridges of the Noses in the distance. Changes since 1963 include loss of views across farmland on the valley floor due to growth of woods.
Upriver View of the Noses	54.0	No	No	Contributing. View west with the wooded hillsides of the Noses in the near distance, and wooded banks. Changes since 1963 most likely include loss of expansive views across farmland on the valley floor due to growth of woods.
Constructed Water Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Canajoharie Terminal Basin	62.9	No	No (part of navigable waterway)	Contributing. Widewater in Canajoharie Creek at terminal wall.
Lock E-14 Approach Prism	63.5	No	CIMS? (part of navigable waterway)	Contributing.

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY) **CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT**				
Lock E-15 Boat Slip	67.0	No	No	Non-contributing. Presumed recreational boat slip psto-1963, supported by steel piling.
St. Johnsville Terminal Basin	69.4	No	No (part of navigable waterway)	Contributing. Widewater in Mohawk River.
Small-Scale Features				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
Buoys	Multiple	No (mentioned in documentation)	No	Contributing. Mark the navigational channel; changes to buoy design since historic period not documented.
Snubbing Posts: --St. Johnsville Terminal (5) --Canajoharie Terminal (4) --Lock E-15 (21) --Lock E-14 (40) --Lock E-13 (33)	69.48 64.0 61.0 53.12	No	No	Contributing. Three types/standard designs: tall post on wall; outlying tall post on concrete pad (added 1920s), squat post (few—type found along land-cut canal). Distinctive small-scale features of the Barge Canal.
Lock Gate Railings --E-13 --E-14 --E-15	Multiple	No	?	Unevaluated. Painted metal pipe railings on narrow walkway on top of lock gates.
Lock Chamber Railings --E-13 --E-14 --E-15	Multiple	No	?	Non-contributing. Highly visible ball-joint pipe railings painted blue and yellow at Lock E-15 detract from historic character; simple pipe railings at E-14 less intrusive.
Lock Flagpoles --E-13 (2) --E-14 (1)	Multiple	No	?	Unevaluated.
Lock Light Standards: --Lock E-15 (3) --Lock E-14 (3)	64.0 61.0	No	?	Contributing / Non-contributing. Standard mast-arm style, distinctive historic features of Barge Canal. E-14 has 2 non-historic replacement standards. Drop pendant luminaires (ca. 1950s) replaced on some. Lights appear to have been removed from E-13.
Lock Canal Park Small-Scale Features (E-14, E-15) --Picnic tables --Barbecues --Split-rail fences --Waste receptacles	61.0, 64.0	No	No	Non-contributing. Inconspicuous overall; some features detract from historic utilitarian character of landscape
Mohawk Valley Welcome Center Small-Scale Features --Mast-arm lights (8) --Picnic Tables --Tugboat --Anchor --Playground equipment --Split-rail fences --Waste receptacles	55.4	No	No (NYS Thruway)	Non-contributing. Detract from historic utilitarian character of Lock E-13 grounds.

TABLE 3.1 – CULTURAL LANDSCAPE INVENTORY DATA (LANDSCAPE FEATURE INVENTORY) **CANALIZED RIVER – NATIONAL HISTORIC LANDMARK DISTRICT**				
St. Johnsville Municipal Marina Small-Scale Features (see also Snubbing Posts) --Marina sign --Coachman --Benches --Picnic tables --Boat hook-ups --Flagpoles --Interpretive sign	69.4	No	No	Non-contributing (within permitted area, former St. Johnsville Terminal). Some features may predate 1963 (marina opened in 1956), but unrelated to the historic significance of the Barge Canal.
Riverfront Park Small-Scale Features (see also Snubbing Posts) --Benches --Bollards --Fences/railings --Waste receptacles	61.0	No	No	Non-contributing (within permitted area, former Canajoharie Terminal). Ornamental features that detract from the historic utilitarian character of the Barge Canal.
Archaeological Sites				
Feature Name	Location (Canal Mileage)	NHL Resource	Canal Corp. Inventory	Feature Contribution
None identified.				

HISTORIC RESOURCE SURVEY DATA (SETTING OF NHL DISTRICT)

The inventory data in this section is for occurrences (parallel to CLI landscape features) of landscape types adjacent to the National Historic Landmark (NHL) district using the Historic Resource Survey (HRS) method adapted for this pilot project. For each occurrence, table 3.2 lists: 1. Occurrence name; 2. Location (mileage along the canal); 3. Adjacency to the canal (primary or secondary); 4. Visibility from the canal (foreground, midground, or background); 5. Other inventory data on the occurrence; and 6. Evaluation of whether the occurrence contributes to the historic setting of the Barge Canal (contributing, non-contributing, unevaluated if insufficient information).

Notes about HRS data for adjacent landscapes:

- Canal mileage should correspond to the National Historic Landmark district measurements along the centerline of the canal. However, the GIS data for this was not available. Mileage in the tables thus refers to mileage along the Erie Canalway Trail, which has a different starting point (about 1-2 miles difference).
- Woodlands and hedgerows are not individually inventoried.
- Foreground visibility is defined as what is closest to the viewer on the canal or canalside trail. The viewer can easily make out details in the landscape and see clearly what the objects or structures are. The midground is when lines and objects can be identified. The background is everything in the distance, generally when details are not discernable.
- Due to the limited project scope, an evaluation of how occurrences contribute to the historic setting of the Barge Canal (compatible or incompatible) was not completed for all inventoried occurrences. This information is important to inform future management.
- Occurrences in some instances were evaluated as contributing to the historic setting of the Barge Canal even though they are not visible from the canal, due to proximity or historical association, or potential for visibility in leaf-off conditions.

Abbreviations:

CIMS – Canal Infrastructure Management System (NYS Canal Corporation)
GPI Trail Data – Empire State Trail Inventory
n/a – Not available
NHL – National Historic Landmark (Barge Canal historic district district)
NR – National Register of Historic Places
NYSCC – New York State Canal Corporation (GIS data, PROP ID—Property Identification #)
NY CRIS: New York State Historic Preservation Office, Cultural Resource Information System
USN: Unique Site Number assigned to properties in NY CRIS.

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA
CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Outlying State Canal Land

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Upland Disposal Sites: UDS 3-2 to 3-34	Multiple locations	Secondary	Not Visible	NYSCC	Unevaluated. Location of individual UDS tracts not determined.

Ridge and Valley

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Big Nose and Little Nose	61.7-56.2	Secondary	Midground	New York Natural Heritage Program (ecological communities)	Contributing. The Noses are the most prominent landforms in the pilot area and form a water-level break that made the Erie Canal possible. The Big Nose (North of the Canal), had been blasted to prepare for the construction of the New York Central Railroad. Little Nose south of canal.
South Bank Ridges (Canajoharie)	62.43-63.1	Secondary	Midground	No	Contributing, visible from canal at a forty-degree slope just south of Canajoharie.

Woodland, Hedgerow

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Canalside Woodlands	Multiple	Primary	Foreground	No	Contributing and non-contributing (compatible). Although most of the existing woodlands were not present during the historic period, deciduous woodlands are characteristic of the canal's historic setting.
Canalside Hedgerows	Multiple	Primary	Foreground	No	Contributing and non-contributing (compatible). Wooded borders or hedgerows are characteristic of the historic period, but their extent is not known. Some wooded borders screen post-historic development.

Water Body, Wetland

Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Timmerman Creek	72.90	Primary	Foreground	No	Contributing. The lands adjacent to this creek have not undergone significant change since the historic period.
Zimmerman Creek	72.35	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed since the historic period due to the growth of woodlands on either side of the creek, screening views.

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
Mother Creek	69.60	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed since the historic period due to the growth of woodlands along the eastern edge of the creek, screening views from boaters facing west.
Caroga Creek	68.90	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed since the historic period due to the growth of woodlands to the east, screening views of the creek from boaters facing west.
Otsquago Creek	66.30	Primary	Foreground	No	Contributing. The lands adjacent to this creek have not undergone significant change since the historic period.
Canajoharie Creek	62.80	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed since the historic period due to the growth of woodlands to the east, screening views of the creek from boaters facing west, and the development of Riverfront Park to the west.
Flat Creek	59.70	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed significantly since the historic period due to growth of woodlands on historically open land, screening views of the river.
Lasher Creek	57.50	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed significantly since the historic period due to growth of woodlands on historically open land, screening views of the river.
Yatesville Creek	56.25	Primary	Foreground	No	Contributing. The lands adjacent to this creek have changed significantly since the historic period due to growth of woodlands on historically open land, screening views of the river.
Alplaus Kill River	55.90	Primary	Foreground	No	Contributing. The lands adjacent to this river have changed significantly since the historic period due to growth of woodlands on historically open land, screening views of the river.
Agricultural Field, Orchard					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Town of Minden – South of Canal					
Veit Farms Realty LLC Farm Fields (St. Johnsville Road)	68.20 - 68.30	Primary	Not Visible	No (aside from property/tax records)	Contributing. These fields remain important open space and have not undergone significant change since the historic period. Woods along canal, screening fields from view, existed historically.

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA
CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

Veit Farm Fields (Palatine Bridge)	67.20 to 67.80	Primary	Foreground – Not Visible	No	Contributing. These fields remain important open space and have not undergone significant change since the historic period. Woods along canal, screening fields from view, existed historically.
Town of St. Johnsville – North/East of Canal					
Fawley Farm Fields State (NY 5 East)	68.10-68.80	Primary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to the growth of woods within the property. Woods along the canal, screening fields from view, existed historically.
Hosletter Farm Fields (7024 NY 5 East Fort Plain, NY 13339)	67.02- 67.08	Primary	Foreground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from the canal. The fields have not undergone significant change since the historic period. Woods along the canal, screening fields from view, existed historically.
Young Farm Fields (335 Paris Road, Fort Plain, NY 13339)	66.60-67.00	Primary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to the growth of woods within the property and growth of woods along the canal that screen views.
Johnson Farm Fields (141 Old Mill Road, Fort Plain, NY 13339)	66.35-66.60	Primary	Foreground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to the growth of woods within the property and growth of woods along the canal that screen views.
Logan Farm Fields (338 Nellis Road, Fort Plain, NY 13339)	65.90-66.30	Primary	Foreground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to the growth of woods within the property and growth of woods along the canal that screen views.
Town of Palatine – North/East of Canal					
Lasher Farm Fields (6529 State NY 5, Fort Plain, NY 13339)	64.4	Secondary	Not Visible	No	Contributing. This hay field on hillside near Lock E-15 contributes to the larger setting of the canal but is not visible from it. The field has changed since the historic period due to growth of woods along the eastern and northeastern property lines and addition of residence.
Bowman Farm Fields (6483 NY 5, Fort Plain, NY 13339)	64.30-64.43	Secondary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to growth of

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA
CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					woods along the canal that screen views.
Holdings LLC Delnero Farm Fields (NY 5, Fort Plain, NY 13338)	64.25-64.30	Secondary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to decrease in extent and growth of woods along the canal that screen views.
State of New York Agricultural Fields (directly east of Montgomery County Sewer District)	62.90-62.95	Secondary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to growth of woods along the northern property line and growth of woods along the canal that screen views.
Dygert Farm Fields (243 Dygert Street, Palatine Bridge, NY 13428)	61.75-62.90	Primary	Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed since the historic period due to growth of woods along the northern property line and growth of woods along the canal that screen views.
Town of Root – South of Canal					
Mead Farm Fields (244 Hilltop Road, Sprakers, NY 12166)	57.40 - 59.10	Primary	Foreground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed due to the growth of woods along the northern property line and growth of woods along the canal that screen views.
Town of Mohawk – North of Canal					
Kanatsiohareke Inc. Farm Fields (4934 NY 5, Fonda, NY 12068)	55.70 - 56.90	Primary	Foreground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed due to significant growth of woods on the eastern half of the property, resulting in decrease of extent, as well as growth of woods along the canal that screen views.
Jones Farm Fields (NY 5)	54.48 - 55.20	Primary	Foreground	No	Contributing. These fields remain important open space open to the canal, but have changed due to growth of woods along the canal on the property's eastern half.
New York Central Line Inc. Farm Fields (directly east of 347 Reservoir Road, Fonda, NY 12068)	54.13 - 54.48	Primary	Foreground	No	Contributing. These fields remain important open space along the canal, but have changed due to growth of woods along the banks that partly screen views.
Jones Jr. Farm Fields (NY 5)	52.95 - 53.80	Secondary	Midground – Not Visible	No	Contributing. These fields contribute to the larger setting of the canal but are not visible from it. They have changed due to

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA
CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT

					growth of woods along the canal that screen views.
Farmstead / Rural Residential Property					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Town of Minden					
Dump Road (#201)	71.50	Secondary	Not Visible	No	Contributing. Ca. 1825, Federal-era brick house along old Erie Canal, near old Lock 33. Screened by trees between road and Barge Canal.
Town of St. Johnsville					
Fort Klock Restoration, 7214 NY 5	70.3	Secondary	Midground (screened)	National Historic Landmark #72000859	Contributing. 18th century fortified Dutch stone house and outbuildings close to canal, across railroad. Screened from canal by woods. Period of significance: 1750, 1775-1783.
Dump Road, #201	71.50	Secondary	Not visible	No	Contributing. Ca. 1825, Federal-era brick house along old Erie Canal, near old Lock 33. Screened by trees between road and Barge Canal.
Hamlet					
No occurrence adjacent to canal (Sprakers along old canal alignment south of river, but not visible due to topography and woods)					
Village					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Village of Canajoharie					
Canajoharie Historic District (State and National Register listed) -101 Erie Blvd -75 Erie Blvd -68 Church Street -56 Montgomery Street	62.50-63.60	Secondary	Midground NY CRIS:	NY CRIS: Project Number: 14PR03713NR Number: 14NR06580	Contributing. Rooftops and taller buildings visible from canal and Lock E-14 canal park. 870 contributing resources. Period of significance ca. 1750-1958.
Village of Fort Plain					
Fort Plain Historic District (State and National Register listed)	66.10-66.65	Secondary	Background	NY CRIS: Project Number:12PR05432 NR Number: 12NR06342	Contributing. Rooftops visible from Lock E-15; village not visible from canal directly north of village. 539 contributing resources; additional under boundary increase 2022. Period of significance ca. 1786-1938.
Village of Nelliston					
Nelliston Historic District (State and National Register listed)	66.20-67.10	Secondary	Background	NY CRIS: Project Number: 90NR01557Project	Contributing. Largely screened from canal by woods along railroad and topography. # of contributing resources and period of significance n/a.

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
				Number:90P R05 789	
Village of Palatine Bridge					
Palatine Bridge Historic District (State and National Register listed)	62.60-63.55	Secondary	Midground	NY CRIS: Project Number:19P R02 128 NR Number: 19NR00029	Contributing. Screened from canal by trees along railroad and by topography. 212 contributing resources. Period of Significance ca. 1739-1966.
Village of St. Johnsville					
St. Johnsville Village Historic District (State and National Register listed)	71.50-72.40	Secondary	Midground	NY CRIS: NR Number: 17NR00117P roje ct Number 17PR08724	Contributing. Industrial area of village historic district forms backdrop to St. Johnsville Terminal. Core of village not visible from canal due to woods and topography. 663 contributing resources. Period of significance: ca.1800-1957.
Suburban Residential Area					
No occurrence adjacent to the canal.					
Suburban Industrial and Commercial Areas					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
JBL Enterprise Scrap and Recycling, 103 Otsquago Club Road, Fort Plain	64.73	Primary	Foreground	No	Noncontributing (incompatible). Located at edge of the Erie Canalway Trail at Lock E15. No apparently relationship to canal. High visibility from trail and Lock E-15's picnic area.
Longhorn Trucking Company, 6605 NY-5, Fort Plain	67.80	Secondary	Background	No	Noncontributing (incompatible). Large white warehouse on ridge visible from Lock E-15.
Quarry, off NY 5, Palatine Bridge	62.7	Secondary	Not visible	No	Unevaluated due to lack of historic documentation. Surface mine across railroad from canal, upriver from Lock E-14. Screened by border of woods along railroad.
Institutional Campus					
No occurrence adjacent to canal.					
Park and Conservation Land					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Fort Clock Historic Restoration Conservation Land	70.4-70.6	Primary	Foreground	No (not part of Fort Klock National Historic Landmark)	Contributing. 19.2 acres of wooded and marsh land between railroad and Barge Canal (former state canal lands, PROP ID 4162-B).

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
Lock E-15 Canal Park Area (extends into NHL district)	64.0	Primary	Foreground	No	Contributing. Park established post-1963 but maintains open space west of lock that existed historically.
Mohawk Valley Welcome Center – NYS Thruway	53.12	Primary	Foreground	Thruway Authority facilities	Non-contributing. Thruway rest stop developed in Lock E-13 area in ca. 2019. Contains buildings and other features that evoke canal history. Divides canal powerhouse from lock.
Riverfront Park 143 Church Street Former Canajoharie Terminal	63.00	Primary	Foreground	Village of Canajoharie facilities	Non-contributing (terminal wall contributing to NHL). Park built between 1997 and 2005 in former canal terminal area. Park on permitted canal lands and extends into NHL district (terminal wall). Existing walks, walls, benches, pergolas, and plantings conceal character of historic terminal.
Saint Johnsville Municipal Marina (1 Marina Drive) Former St. Johnsville Terminal	69.5	Primary	Foreground	Village of St. Johnsville facilities	Non-contributing (terminal wall contributing to NHL). Marina established 1956 within NHL period of significance on former St. Johnsville Terminal area but does not reflect historic significance of the Barge Canal. area. Marina shop, shed, and miniature lighthouse may post-date 1963. Marina on permitted canal lands and extends into NHL district (terminal wall).
Transportation Corridor / Facility					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
North of Canal					
CSX Railroad (New York Central)	Continuous	Primary and Secondary	Foreground	n/a	Contributing. The railroad was established in 1853; its main line at its height contained 6 tracks along the northern side of the Mohawk River.
Marina Drive, St. Johnsville Former terminal access road	71.94-72.16	Secondary	Midground	No	Contributing as part of former barge canal infrastructure. Marina Drive is the former access road to the St. Johnsville Terminal. It was modified/expanded post-1963, including addition of a parking lot on the east side.
Old Station Road, Nelliston	65.59-66.61	Secondary	Not visible	No	Contributing. Pre-1963 road parallel to canal. Road has been extended now leading to Elks Lodge.
South of Canal					
Dump Road	69.08-72.10	Secondary	Not visible	No	Contributing. Pre-1963 residential road South of Bridge Street
Access Trail	67.81-71.30	Secondary	Not Visible	No	Contributing. Pre-1963 road that connects to Dump Road, leads to

TABLE 3.2 – HISTORIC RESOURCE SURVEY DATA CANALIZED RIVER – SETTING OF NATIONAL HISTORIC LANDMARK DISTRICT					
					Enlarged Erie Canal Lock #33 of the original Erie Canal.
Erie Canalway Trail	68.20-70.45	Secondary	Background	GPI Trail Data	Non-contributing. Built post-1963, underpass at Thruway. Remote from NHL district, mostly on former railroad grade.
Otsquago Club Road	66.45-68.20	Primary	Not visible	No	Contributing. Pre-1963 asphalt road maintained by the Village of Fort Plain. Part of Erie Canalway Trail.
New York State Thruway	55.40-66.45	Primary / Secondary	Foreground and Midground	NYS Thruway Authority	Contributing, reflects next generation of transportation through Mohawk Valley. Construction of the Thruway through the Mohawk Valley was completed in 1954.
Utility Site / Corridor					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Transmission Lines – Clinton ERCC 366 – Canajoharie 312	63.2	Primary	Foreground and Midground	NYS Public Service Commission	Unevaluated (appears to predate 1963).
Montgomery County Sewer District (#1-2), 28 Old Station Road, Nelliston	66.1	Primary	Midground	n/a	Non-contributing. Post-1963. Partly screened by thin band of woods along riverbank.
Village of Canajoharie Wastewater Treatment Plant, 63 Incinerator Road	62.7	Primary	Not visible	n/a	Non-contributing. Post-1963. Screened by woods (in leaf).
St. Johnsville Wastewater Plant, 35 Marina Drive	71.9	Primary	Not visible	n/a	Non-contributing. Opened in 1973. Screened by woods.
Archeological Resource					
Occurrence Name	Location (Canal Mileage)	Adjacency to Canal (NHL District)	Visibility from Canal (NHL District)	Other Inventory Data	Contribution to Historic Setting
Old Erie Canal Lock 33 [also connecting prism]	71.27	Secondary	Midground	NY CRIS NR Number: 01NR01840	Contributing. National Register listed; described but not counted in Barge Canal NHL district documentation. Visible from Barge Canal at a minor opening in woods opposite lock. Not along Erie Canalway Trail.

VISUAL RESOURCE INVENTORY DATA (VIEWS FROM NHL DISTRICT)

This section provides a table that summarizes the data collected for the five inventoried viewpoints in the land-cut canal pilot area, including the scenic inventory value matrix (table 3.3, below) and a summary of the findings for each viewpoint.

TABLE 3.3. VISUAL RESOURCE INVENTORY – VIEWPOINT RATINGS – CANALIZED RIVER

VIEW #	VIEW NAME	SCENIC QUALITY RATING	VIEW IMPORTANCE RATING	SCENIC INVENTORY VALUE
1	St. Johnsville Municipal Marina	C	4	L
2	Lock E-14 Canal Park	B	2	VH
3	River View Facing East	A	5	M
4	View of The Noses Facing West	B	3	H

VIEWPOINT #1. ST. JOHNSVILLE MARINA

- Scenic Quality Rating: C
- View Importance Rating: 4

Landscape Character

The landscape of the marina is characterized by a densely wooded area to the south and west, a campground park to the east, and a railroad and industrial area to the north. This section historically would have been cleared of unmanaged vegetation, and the terminal area (marina) would have had a working character instead of the present recreational character. The truss bridge that historically carried Bridge Street across the Barge Canal formed a strong focal point to the southwest, but the existing non-historic plate-girder bridge is less visually prominent.

Scenic Quality

The view from the St. Johnsville Marina received a scenic quality score of 26.5. Many desirable elements of the landscape character are present. Power lines are visible and obstruct the natural setting of adjacent forested lands. The overall quality of the space was lacking; the marina wall and riprap require repairs, and vegetation grows between cracks in the terminal. A bridge, gazebo, and miniature lighthouse were identified as focal points, but are inconsistent with the historic character of the landscape. The space has a noticeably weak composition; the space was organized into one small and claustrophobic room with the canal prism beyond barely in view. Some elements were inconsiderate of scale or color

harmony, such as the miniature lighthouse painted white and purple, and the bright yellow caution border along the top of the terminal wall.

View Importance

The total view importance score for the St. Johnsville Marina is 16.5. The viewpoint is predominantly known to locals but is not well advertised beyond. Mowing and trimming of the grounds occurs, but overall maintenance is not at a high level. One interpretive kiosk on canal history is present at the viewpoint. The viewed landscape is not well noted for its view, nor does it contain designated areas or themes that relate to the Barge Canal's character. Visitation is mostly done by locals staying in the adjacent campground, and activities are relatively independent from the view. The total view importance score was 16.5.



Viewpoint #1: View from St. Johnsville Marina facing east (toward the campground (left) and southwest toward the Bridge Street bridge and peninsula with miniature lighthouse (right), July 2022. (SUNY ESF)

VIEWPOINT #2. CANAJOHARIE AND MOHAWK RIVER FROM LOCK E-14 CANAL PARK

- Scenic Quality Rating: B
- View Importance Rating: 2

Landscape Character

The landscape viewed from Lock E-14 canal park located in the Village of Palatine Bridge is a unique composite of several different landscape types, including a transportation corridor and urban, industrial, and recreational lands. To the south, the foreground provides views of Lock E-14 and the Mohawk River viewed above successional growth along the banks. A village landscape can be made out in the midground and background of the view. Some sections of large features can be seen of historic buildings such as the Reformed Church, Community Bible Church, and the Beechnut Factory. Roads and rooftops can be seen intermittently through the tree cover. A wooded ridge frames the background. Most desirable scenic features are present, but the historic NY 10 Barge Canal truss bridge that

connected Canajoharie and Palatine Bridge has been replaced with a less visually prominent girder bridge.

Scenic Quality

The total scenic quality score for this area is 31.5. The Lock E-14 dam serves as a strong focal point, but the panoramic nature of the viewshed allows for multiple points of interest to detract from the dam. Forms and lines of the dam structure, Thruway, and churches add visual interest to the scene. There seemed to be no clear structure or organization of elements, but elements seemed to be well-scaled. Colors of industry within the village (notably yellow and bright blue on the Richardson plant) were incompatible and clashed with the surrounding landscape.

View Importance

This view received an importance score of 33.5. The locks and dams of the Barge Canal are well-publicized and known about, both through public knowledge and channels of external media. The space is well managed and maintained. No interpretive signs or formal services are offered, but the lock staff is incredibly sociable and eager to talk about the canal. Features within the viewed landscape such as the Canajoharie industries and the dam complex demonstrate the historic physical and industrial character of the canal, though the existing NY 10 girder bridge does not represent this. Viewers are likely to stay in the park near the viewpoint for some time. Viewers would be highly sensitive to changes or incompatible elements.



Viewpoint #2: View from the Lock E-14 canal park looking east toward NY 10 bridge with Canajoharie rooftops to the right (left), and south at the Lock E-14 moveable dam with the Thruway and a factory building in the distance (right), July 2022. (SUNY ESF)

VIEWPOINT #3: RIVER VIEW NEAR SPRAKERS FACING EAST

- Scenic Quality Rating: A
- View Importance Rating: 5

Landscape Character

The character of the landscape overall is natural and wooded, with woodlands extending along the banks, as viewed from a boat on the Mohawk River/Barge Canal. The landscape is overall enclosed. In the far distance, The Noses are visible. Historically, the views would have been more expansive across farmland on the river flats that extended to the edge of the river. The hamlet of Sprakers may have been visible to the south.

Scenic Quality

This viewpoint received a total scenic quality score of 42.5. The view downriver had all desirable elements, no inconsistent elements, and was in fairly good condition aside from some dead trees (probably ash). The natural character of the space was unimpeded by external visual intrusions. The linear nature of the space created a strong general focal area downriver, but no clear point was defined; The Noses are too far distant to form a strong focal point. The curves and shapes of the winding riverbank, valley ridges, and foliage as well as the vivid greens of the space created strong visual interest. Elements within the space were well organized and flowed together harmoniously.

View Importance

This viewpoint received a total view importance score of 10. The viewpoint itself is not publicized, nor is it managed as a designated viewpoint along the canal prism. No interpretive services exist. It is consistent with the character of the canalized Mohawk River. Few people to none are likely to stop or stay in this space, since most would be boaters traveling along the canal, but the character of the scenery in general is important to the viewer experience. Viewers may be sensitive to visual intrusions, but would likely not give them much thought if they were just passing through.



Viewpoint #3: View east down the Barge Canal / Mohawk River near Sprakers in the towns of Root and Mohawk showing wooded banks and ridges, July 2022. (SUNY ESF)

VIEWPOINT #4: VIEW OF THE NOSES FACING WEST

- Scenic Quality Rating: B
- View Importance Rating: 3

Scenic Quality

Big Nose and Little Nose in the towns of Root and Mohawk form the eastern gateway to the narrow portion of the Mohawk Valley. The viewpoint looking west from near Lock E-13 received a scenic quality score of 33.5. Viewed from a boat on the Barge Canal, the corridor through The Noses allowed a view of the natural landscape, some agricultural fields, and transportation corridors on either side of the Mohawk River. Most desirable elements were present. Some inconsistent elements such as power lines and solar panels were present but did not detract from the view. The elements were in fair condition, though some erosion in the riverbank and existing riprap was present. The Little Nose in the midground acted as a strong focal point. Lines of the Thruway south of the river and the railroad north of the river added visual interest and accentuated the qualities of The Noses. Some pattern was present in the spatial character, though it was not completely clear. Overgrowth along the riverbanks detracted from the perceived scale of The Noses. Colors generally worked well together.

View Importance

This viewpoint received a view importance score of 25. While the specific viewpoint on the Barge Canal is not publicly known of or managed, the viewed landscape of The Noses is a hallmark feature of the Mohawk Valley region. Boaters traveling along the canal likely make it a point to come and visit this area just to view The Noses. Viewers will likely not stay fixed within the viewpoint, but take it slowly as they travel through to observe the features of the landscape. Sensitivity to changes or intrusions along the landscape is high.



Viewpoint #4: View of the Noses from near Lock E-13 looking southwest to Little Nose (left) and due west with Big Nose at right (right), July 2022. (SUNY ESF)

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APPENDICES

A. SAMPLE INVENTORY FIELD FORMS

The following three paper forms were used by the ESF team in the field to record data for the Cultural Landscape Inventory (Barge Canal National Historic Landmark District) and the Historic Resource Survey (Lands adjacent to the National Historic Landmark District / setting of district).

- Mile Segment Summary Form (2 pages; with tally and notes about landscape features within NHL district and adjacent landscape types and occurrences).

- Mile Segment Character-Condition Form (1 page; notes on overall landscape characteristics and physical condition of Barge Canal landscape / NHL district and its setting).

HB DB = HULBERTON DRAW BRIDGE

ERCA Barge Canal Pilot CLI
Mile Segment Summary Form

Team JOE, SIELA, JOHN Start Mile 289 GPS Beginning _____
Dates(s) 6/28/2022 @ 1:30 PM End Mile 288 GPS End _____

Buildings and Structures	Total #	Predominant Type(s)/Notes
Bridges	1	DRAWBRIDGE @ HULBERTON
Walls	III	RETAINING WALL @ HOUSE EAST OF HB DB WALLS ALONG CANAL EDGE EAST OF HB DB
Earthen Embankments		
Locks		
Culverts	1	1 CONCRETE CULVERT EAST OF HBTON DB
Other? HOUSES/BUILDINGS	1 GROUP OF HOUSES ON CANAL RD.	CANAL RD. HOUSES =SEC ADJ.

Vegetation	Total #	Predominant Species
Specimen Trees/ PLANTS	III	AT HULBERTON — 2 CLUMPS OF IRIS, LILAC, MAPLE TREE (ORNAMENTAL
Planted Strip	1	CORIOPSIS / LAVENDAR STRIP @ HULBERTON DRAWBRIDGE AREA (RATHER OVERGROWN)

Circulation	Total #	Name of Trail/Notes
Erie Canalway Trail		
Other Trail		
Walks/Steps		
Roads	1	E HULBERTON EAST ACCESS ROAD ON NORTH SIDE
Parking Lot		

Small-Scale Features	Total #	Predominant Type(s)/Notes
Signs		
Monuments and Markers		
Fences	III	TIMBER FENCE ALONGSIDE HOUSE NORTH OF ~~HULBERTON~~ SIDE; EAST OF HULBERTON DB
Gates	1	* DECIDED NOT TO CREATE POINTS ON FIELD MAPS FOR GATES
Benches / PICNIC TABLES	II II	2 PICNIC TABLES @ HULBERTON 2 BENCHES ~~ON~~ EAST HULBERTON DRAWBRIDGE (TOWARD MILE MARKER 288)
Trail Kiosk Area		
Other? BOLLARD / CLEATS	III 1	1 BOLLARD + ONE CLEAT (RING TIE-OPS) @ HULBERTON

Views and Vistas	Total #	Locations of Notable Views
Panoramic		
Framed/Filtered		
Other?		

Natural Systems/Features	Check Dominant Types	Notes
Hardwood Forest		
Successional Fields/Veg.		
Wetlands/Swamp		

ERCA Barge Canal Pilot CLI
Mile Segment Summary Form

Team _____ Start Mile _____ GPS Beginning _____
Dates(s) _____ End Mile _____ GPS End _____

Adjacent Lands	Check Dominant Types	Notes
Agricultural/ Orchard		
Rural Residential		
Suburban Residential		
Vacant Land		
Industrial		
Commercial		
Wild, Forested, Conservation Lands		
Public Parks		
Wetlands	√	

OTHER STRUCTURES	#	NOTES
CONCRETE DISCHARGE OUTLET	1	CONCRETE; ⊓ shape NEAR ~~DR~~ 1000 FT SOUTH OF DRAWBRIDGE
PRIVATE DOCK	1	

SITES / LAND USE	#	NOTES
HULBERTON HAMLET		INCLUDES DRAWBRIDGE + PICNIC AREA, SEVERAL HOMES + BUSINESSES, SMALL ROAD
LAND USE CHANGE @ HULBERTON DRAW-BRIDGE PICNIC AREA		USED TO BE INDUSTRIAL — NOW PICNIC AREA
SPOILS DUMPING AREA	1	EAST OF HB DB ON NORTH SIDE
SPOILS BERM/PILE	1	SOUTH OF DUMPING AREA ON NORTH SIDE OF CANAL — ≈ 6-8' TALL + PRETTY LONG!

General Notes:

LAYOUT OF CANAL = GENERALLY WINDY / CURVING

CANAL RD. HOUSES LINE START OF MILE 289 — SEC. ADJ. GROUPED FEATURE

LOOKS LIKE THERE MIGHT BE HULBERTON SHOPS CLOSE TO HULBERTON DRAWBRIDGE + BIKE SHOPS — CANAL MAINTENANCE AREA — CHECK NHL FOR THIS (PRIMARY ADJ.) — LOOKS MODERN, ESP. IN BUILDING STRUCTURE (METAL + CONCRETE BLOCK)

HULBERTON = HAMLET

DRAWBRIDGE @ HULBERTON HAS 3 LIGHTS TO DIRECT BOAT TRAFFIC

PROPERTY JUST PAST HULB. DB (TOWARDS MILE 288) ENCROACH ON NORTHERN SIDE ENCROACHES INTO NHL PROP.

AMBIGUOUS / POROUS BOUNDARY BTWN NHL PROPERTY + PRIVATE PROPERTY

ACCESS ROAD EAST OF HULBERTON DB HAS ADOPT-A-TRAIL SIGN — MAINTAINED BY KENDALL LAWN CHAIR LEDGS

ABANDONED ACCESS RD EAST OF HULB. DB

PLANT SPECIES — SUMAC, SUGAR MAPLE, COTTONWOOD, BLACK LOCUST

ENCOUNTERED SPOILS DUMPING AREA EAST OF HB DB (TOPO FEATURE)

*TALK ABT HOW TO MAP MOWED OPEN SPACE ALONG CANAL EDGE — DO WE MAP OR JUST DESCRIBE IN A GRAPHIC?

ERCA Barge Canal Pilot CLI

Mile Segment Character-Condition Form

Overall Character of Segment

The field team that inventoried the segment should collectively complete the questions that follow. Indicate all answers that apply.

1. The surrounding landscape is generally....
- ○ scenic.
- ● marred by Industrial and dead Ash.

2. The surrounding terrain is generally....
- ● flat.
- ○ hilly.
- ○ steep.
- ○ Other _____.

3. This segment generally tracks....
- ○ through a plain.
- ○ through a valley.
- ● through a forest.
- ● Other Forested Low-Density

4. The surrounding vegetation has created ____conditions along the canal trail:
- ○ closed and shady.
- ● open and sunny.
- ● both. (South side is shady)

5. Road grades are generally....
- ● level.
- ○ gradual, gently rolling.
- ○ hilly.

* Redman Rd. Bridge elevated.

6. The canal alignment is generally....
- ● straight.
- ○ gently curving.

7. Views from the canal are...
- ○ many.
- ● some.
- ○ few if any.

8. The best view(s) is/are of:

View of Grand Canal throughout. View of college buildings from afar. Some homes.

9. The most interesting structures are:

Redman Rd. Bridge, Non-Cont.

10. Other comments:

Forested regions full of dead ash trees. Industrial park behind screen is loud, easily heard.

Redman Trailhead has a bike repair.

Rip rap in Fair to Poor condition. Along the road beyond Redman, new rip rap installed.

Team _____

Date 6/30/22

Segment Name:

Start Mile: 283

End Mile: 282

Overall Condition of Segment

Select only one.

☐ **Good:** no clear evidence of major negative disturbance and deterioration by natural and/or human forces. Its cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

☑ **Fair:** clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the landscape characteristics will cause the segment to degrade to a poor condition.

☐ **Poor:** shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

B. SAMPLE VISUAL RESOURCE INVENTORY FORMS

The following paper forms were used by the ESF team to complete the Visual Resource Inventory of select viewpoints in the two pilot area. The forms were adapted from standard National Park Service VRI forms to better fit with the conditions of the Barge Canal. The three forms include:

- Viewpoint Identification Worksheet, identified by the inventory team as "Field Form 1" (2 pages).

- View Description & Scenic Quality Data, and Scenic Quality Individual Rating Data, identified by the inventory team as "Field Form #2" (4 pages).

- View Importance Data, identified by the inventory team as "Field Form #3" (3 pages)

Appendix B - VRI Field Form #1

Field Form 1

NYS Barge Canal Visual Resources Inventory

Viewpoint Identification Worksheet

Date: 6/24/22

Staff: Joseph Perez, Jack Ansen, Siela Zembsch, Allison Perry

Number: Assign each viewpoint a number. Format: Division Name-V[iew]_mileage#, e.g., Erie-V_157.3

Name: Give the viewpoint a name. This should be related to the viewpoint location, such as a lock, bridge, or other feature.

Rationale: Provide a brief description of the reason(s) for selecting the viewpoint. View identification is restricted to views from the canal (including bridges that cross it) and the canal-side trail.

Access: Provide the general level of access to the viewpoint according to the ratings below.

1. Access for the general public is very easy via motor vehicle or on foot, such as from a bridge, and is open at all times.
2. Getting to the viewpoint requires about 10 -20 minutes of walking along the canal-side trail, or access to a canal facility (such as a lock) that is not open at all times.
3. Getting to the viewpoint will require boating on the canal.
4. Access to the viewpoint is not open to the general public or requires permission of Canal Corporation personnel, such as views from lift bridge control tower or from a canal maintenance yard.

Priority: Prioritize the viewpoint according to the following general criteria. The purpose of assigning priority is to determine the most effective use of limited staff and stakeholder/volunteer resources. It is not an assignment of the importance of the viewpoint. It is anticipated that all viewpoints will be inventoried.

A. The highest priority viewpoints are those where there may be an immediate threat to the view from a proposed project or from land management or development decisions.
B. These viewpoints are not likely subject to changes in the view in the near future, but land management or development could affect the view.
C. These are viewpoints that are currently somewhat protected from visual intrusions and if needed could be included in the inventory at a later time.

No.	Name	Type	Rationale	Access	Priority
278.58	Sweden-Walker Bridge Trailhead	Rural / Agricult.	Entryway to site would be a common viewpoint	1	C
280.85	N. Main St. Bridge	Commercial	Historically Significant Bridge, Common view.	1	A
281.73	Bench @ Guard Gate 12	Commercial / Suburban	Good reference for view importance Data	2	B
283.15	Wetland Area w/ Private Dock	Wetland / Forested	Canal enlarges at the point and has hardwood wetlands, clearly visible	2	B
285.34	East Ave Bridge	Public Park / Suburban	Historic Structure, Scenic Viewpoint	1/3	B
288.53	Hulberton Bike Shop	Commercial / Forested	Scenic Viewpoint w/ Social media Posts.	1	C

1

Appendix B - VRI Field Form #1

NYS Barge Canal Visual Resources Inventory

Viewpoint Identification Worksheet

No.	Name	Type	Rationale	Access	Priority
294.56	Albion West Sandy Creek Mill	Industrial/ Suburban	Current Waste Weir that was once Woods and Sprague Mill.	2	A
295.17	Albion Maintenance Shop	Industrial/ Forest?	Contributing Structure w/more industrial focus than other viewpoints.	1	B

2

Appendix B - VRI Field Form #2

Field Form 2

NYS Barge Canal Visual Resources Inventory

View Description & Scenic Quality Data

Viewpoint No.: 2

Observation Data

NYS Barge Canal Division:	Date: 7/19/2022	Time: 4:18 PM
Viewpoint Name: Eastern tip of Lock E14 Canal Park	Viewpoint Number: 2	
Viewed Landscape Name (if needed): Canal; thruway; Canajoharie		
Evaluator/Recorder: Siela Zembsch		
Viewpoint Coordinates: ☐ UTM, Zone: ☐ Lat./Long.	/	
View Geometry Bearings (☐ Magnetic or ☐ True N)	Left: E	Center: S / Right: W

Weather: ☐ Sunny/Clear ☐ Mostly Sunny ☐ Partly Cloudy ☐ Mostly Cloudy ☐ Cloudy/Overcast ☐ Cirrus

Observer Position: ☐ Looking down at scene ☑ Looking at eye level ☐ Looking up at scene

Photo Record

Photographer:	Camera/Lens 1:	Camera/Lens 2:

Camera	Photo Number(s)	Pano	Notes

Landscape Description

View Type: ☑ Panorama ☐ Feature ☐ Framed ☐ Focal ☐ Enclosed ☐ Canopied

Landscape Character Type:

Urban	Hamlet	Industrial	Suburban Residential	Suburban Commercial	Transportation Corridor	Recreational	Rural	Natural / Unmanaged

Are seasonal/ephemeral effects (e.g., wildflower displays, snow, haze) important to the scenic quality of the view? ☑Yes ☐No

If yes, please describe: deciduous vegetation; water levels

Notes:

Extent of Distance Zones

Foreground: lawn of eastern tip of Lock E14 canal park; successional growth

Middleground: Canal; Lock E14 mule bridge

Background: thruway + Canajoharie urban/industrial landscapes, hills

Landscape Elements

	Distance				Distance				Distance				Distance		
Landform*	F	M	B	Landcover*	F	M	B	Land Use*	F	M	B	Structures*	F	M	B
Mountains				Development				Natural Areas		√	√	High Rise - Residential			
Hills			√	Barren				Timber				Low Rise - Residential			
Valleys				Forest - Deciduous		√		Grazing/Rangeland				High Rise - Commercial			√
Ridges				Forest - Evergreen				Agriculture				Low Rise - Commercial			
Cliffs/Bluffs				Forest - Mixed			√	Mining				Farm Buildings			
Ravines				Forest – Plantation				Industrial			√	Misc. Industrial (Factories, etc.)			√
Plains				Shrub/Scrub				Office/Retail				Power Plants			√
Beaches				Grassland				Urban Residential				Wind Turbines			
Sand Dunes				Pasture/Hay				Suburban Residential				Solar Facilities			
Islands				Cultivated Crops				Rural Residential				Communication Towers			√
Headlands				Wetland/Bog				Transportation				Oil/Gas Wells			
Water		√		Lake/Pond				Parks/Recreation	√			Local Roads			
Constructed				River/Stream		√		Urban Center				Highways			√
								Small Town				Transmission/Substations			√
								Energy Generation			√	Unidentifiable Structures			

Appendix B - VRI Field Form #2

Prominent Design Elements

FORMS

Descriptor	Elements
Rolling	hilltops; tree canopy
Blocky	industrial buildings + misc buildings
Rugged	
Angular	misc buildings; churches
Conical	smokestack; church steeple
Pyramidal	church steeple
Rounded	top of Lock Elf truss bridge
Circular	
Flat	water; park lawn

LINES

Descriptor	Elements
Vertical	smokestack; steeples; trees along canal; signs; telecommunication towers
Horizontal	bridges; roads; retaining wall along highway
Curving	
Undulating	vegetation along embankment
Angular	steeples
Diagonal	lines in Lock Elf truss bridge/dam;
Broken	
Irregular	vegetation

COLORS

Color	Elements
green	vegetation
gray	riprap; chimney; wall; etc.
white	sky; building paint; Richardson logo
yellow	details on Lock Elf truss bridge

TEXTURES

Descriptor	Elements
Smooth	Canal water
Rough	riprap
Medium	
Coarse	riprap
Fine	
Patchy	vegetation
Stippled	
Random	
Uniform	
Ordered	

View Description

Looking south toward Richardson Factory + other structures from eastern tip of Canal Park

Scenic Quality (From Pages 3+4)

Scenic Quality Factor	Rating	Rationale
Landscape Character Integrity		
Landscape Character Elements		
Inconsistent Elements		
Quality and Condition of Elements		
Integrity Total		
Vividness		
Focal Points		
Forms/Lines		
Color Vividness		
Vividness Total		
Visual Harmony		
Spatial Relationship		
Scale Relationship		
Color Harmony		
Harmony Total		
TOTAL		

SCENIC QUALITY	☐E (9-15)	☐D (16-23)	☐C (24-30)	☑B (31-38)	☐A (39-45)

Appendix B - VRI Field Form #2

ERIE CANALWAY National Heritage Corridor

New York State Barge Canal Visual Resources Inventory

Scenic Quality Individual Rating Data

Viewpoint No.:

YS Barge Canal Division:	Date:	Time:	Your Name:
Viewpoint Name:			Viewed Landscape Name (if needed):

Landscape Character Type (Canal Setting; circle all that apply)

City/Village Center	Industrial Complex	Canal Facility	Suburban Residential	Suburban Commercial	Transportation Corridor	Towpath Canal Remnant	Recreation	Rural (Farmland)	Natural / Unmanaged

LANDSCAPE CHARACTER SCENIC INTEGRITY

Landscape Character Elements

Identify the degree to which the full range of important desirable landscape character elements, e.g., natural features, land use types, structures, is plainly visible in the view.

			RATING
Few scenic elements are plainly visible and/or many elements are missing. (1)	Some scenic elements are present, but some elements are missing. (3)	Most or all scenic elements are plainly visible. (5)	4

Rationale: All scenic elements are visible.

Inconsistent Elements

Identify the degree to which inconsistent elements, e.g., agricultural fields in an urban landscape or industrial facilities in a natural landscape, are plainly visible in the view.

			RATING
Many or major inconsistent elements are plainly visible and may be dominant features. (1)	Some inconsistent elements are plainly visible. (3)	Only a few, minor inconsistent elements are plainly visible. (5)	4.5

Rationale: The Bridge St bridge, a historic truss bridge, has been replaced with a bridge that's no longer compatible.

Quality and Condition of Elements

Assess the quality and condition of all landscape elements, including natural and human-made features. Do not lower the rating for historic elements, if their condition is appropriate to setting.)

			RATING
Most elements are of poor quality and/or are in poor condition. Natural appearing elements look very unhealthy, seriously damaged, or in poor condition from pollution, or the presence of debris or litter. Built elements appear to be of poor quality, or are in an advanced state of disrepair. (1)	Most elements are of fair quality and/or in fair condition. Some natural appearing elements do not look healthy, have some damage visible, or have some pollution, debris, or litter evident. Some built elements may be of lower quality, are of unfinished construction, or not well cared for. (3)	Most elements are of high quality and in good condition. Most natural appearing elements look healthy, undamaged, clean, and free of debris. Built elements are of high quality with appropriate materials, designs, and finishes; and appear to be well cared for. (5)	4

Rationale: Most elements are in good condition, though deteriorating industries (Beech Nut Factory) and overgrown riprap lower the score

LANDSCAPE CHARACTER SCENIC INTEGRITY TOTAL RATING 12.5

3

2022

Appendix B - VRI Field Form #2

VIVIDNESS				
Focal Points	Identify the degree to which focal points attract visual attention.			
	The view has weak focal points, or does not have any features that attract and hold attention. (1)	The view has a moderately strong focal point, or has multiple focal points and attention is focused on each one roughly equally. (3)	The view has one very strong focal point that attracts and holds visual attention. (5)	**RATING** 3
Rationale: Panoramic viewpoint; has multiple points of interest, such as dam, industries, + Bridge St. bridge				
Forms & Lines	Identify the degree to which landforms, lines, structures, or water elements add interest to the view.			
	Landforms, lines, structures, and water elements are weak, poorly defined, or insignificant. These elements add little interest. (1)	There are one or more moderately bold and distinct landforms, lines, structures, or water elements that add interest. (3)	There are very bold and distinct landforms, lines, structures, or water elements that add strong visual interest. (5)	**RATING** 4
Rationale: Lock Elly dam and Car ajohane buildings beyond (such as churches) are bold + distinct structures, yet industries + railway retaining wall + riprap detract from view				
Color Vividness	Identify the degree to which the view includes bold colors, and prominent textures or moving elements. Texture and movement are secondary considerations for this component.			
	Colors are generally muted and there are minimal textures or moving elements. (1)	There are moderately bold colors, textures and/or prominent moving elements. (3)	There are very bold or striking colors, textures, and/or moving elements. (5)	**RATING** 3
Rationale: There's a variety of colors, but not a great variety — blue + white of industry is pretty monochromatic				
Are seasonal/ephemeral effects (e.g., wildflower displays, snow, haze) affecting the scenic quality of the view? ☐Yes ☐No If yes, please describe: deciduous trees; water level				
			VIVIDNESS TOTAL RATING	10

VISUAL HARMONY				
Spatial Relationship	Identify the degree to which the spatial arrangement of landscape elements makes the view seem structured, ordered, and balanced.			
	The arrangement of elements appears random or chaotic, and the view has little evident order, discernable pattern, or balance between elements. (1)	The arrangement of elements shows some structure or discernable pattern, but one or more elements seem out of place, making the view appear somewhat disordered or unbalanced. (3)	The arrangement of elements appears to have an easily discernable structure, pattern, and organization that make the view seem well ordered and balanced. (5)	**RATING** 2
Rationale: The view lacks discernable pattern; clusters of buildings + industries appear somewhat random				
Scale Relationship	Identify the degree to which the sizes of landscape elements, relative to each other and to the view as a whole, make the view seem well-proportioned and balanced.			
	One or more elements appear substantially larger or smaller than desirable, and seem significantly out of scale with other elements or the view as a whole. (1)	One or more elements appear somewhat larger or smaller than desirable, and seem out of scale with other elements or the view as a whole. (3)	The elements are in excellent size proportion to one another and to the view as a whole, making the view seem well-proportioned and balanced. (5)	**RATING** 4
Rationale: View could benefit from features' scale being more balanced — ex. - replaced bridge is smaller than desirable				
Color Harmony	Identify the degree to which the view includes a range of compatible colors and pleasing color contrasts where they occur.			
	One or more major colors clash strongly and unpleasantly with the overall color scheme of the landscape, and /or there is a very limited range of colors. (1)	One or more major colors is somewhat incompatible with the overall color scheme of the landscape, and /or there is a somewhat limited range of colors. (3)	The visual elements of the landscape display a wide range of compatible colors or pleasing color contrasts. (5)	**RATING** 3
Rationale Blue of roof + industry is very bold + incompatible				
			VISUAL HARMONY TOTAL RATING	9
			SCENIC QUALITY TOTAL RATING	31.5

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Appendix B - VRI Field Form #3

Field Form 3

New York State Barge Canal Visual Resources Inventory

Viewpoint No.: 2

View Importance Data

NYS Barge Canal Division: Erie (NW) Viewpoint Name: Date:

Viewed Landscape Name:

Recorder: Evaluators:

VIEWPOINT DESCRIPTION

VIEWPOINT TYPE

Viewpoint Value Type(s) (Choose all that apply): ☑ Scenic ☑ Historic/Cultural ☐ Other

Viewpoint Spatial Type (Choose one): ☐ Point ☐ Linear ☑ Area

VIEWPOINT SUBTYPE (Complete for selected viewpoint value type)

New York State Barge Canal National Historic Landmark District

	Resource Name/Description
☑ Canal prism (on water)	
☐ Erie Canalway Trail	
☐ Other trail	
☐ Lock	
☑ Lock park	
☐ Canal crossing (bridge)	
☐ Canal wharf	
☐ Other canal facility	
☐ Municipal canal park	
☐ Interpretive wayside	
☐ Natural feature	
☐ Other	

VIEWED LANDSCAPE DESCRIPTION

Designated Scenic/Natural Components within Viewed Landscape (Choose all that apply)

	Resource Name/Description
☑ New York State Barge Canal	
☐ New York State DEC land	
☐ Other conserved natural area	
☐ New York State Park	
☐ National Monument	
☐ National Nat. Landmark	
☐ National Rec. Area	
☐ NHL ?	
☐	
☐ Other	

☐ Component(s) not present

Appendix B - VRI Field Form #3

Designated Historic/Cultural Components within Viewed Landscape (Choose all that apply)
☐ National Historic Trail
Resource Identification No.: _____ Resource Name: _____
Describe:
☑ National Historic Landmark (Other than Barge Canal)
Resource Identification No.: _____ Resource Name: _____
Describe: Dam + Lock + Beech Nut Fact.
☑ Historic Property (SR/NRHP-listed): ☐ Site ☐ District ☑ Building ☐ Structure ☐ Object ☐ TCP
Resource Identification No.: _____ Resource Name: _____
Describe: Beech Nut Factory
☑ Historic Property (SR/NRHP-eligible) ☐ Site ☐ District ☐ Building ☑ Structure ☐ Object ☐ TCP
Resource Identification No.: _____ Resource Name: E-14 Dam
Describe:
☐ Identified Cultural Landscape
Resource Identification No.: _____ Resource Name: _____
Describe:
☐ New York State or National Heritage Areas (other than Erie Canalway NHA)
Resource Identification No.: _____ Resource Name: _____
Describe:
☐ Traditional Cultural Property (not evaluated for, or listed on NRHP; but identified by cultural group)
Resource Identification No.: _____ Resource Name: _____
Describe:
☐ Other
Resource Identification No.: _____ Resource Name: _____
Describe:
☐ Component(s) not present

Non-Designated Components within Viewed Landscape (Choose One)	
☐ Nationally/regionally significant scenic, historic, cultural, or scientific feature or landmark	☐ Component(s) are not present
Describe:	

Appendix B - VRI Field Form #3

VIEW IMPORTANCE RATING		
Importance Factors	Rating	Rationale
Viewpoint Importance		
Viewpoint Publicity	4	Locks + Dams Publicized
Viewpoint Management	4	Well maintained Space, Successional growth needs tending
Viewpoint Interpretive Services	2	Lock-Keepers are very informative, No other Interp.
Viewpoint Total	16	
Viewed Landscape Importance		
Viewed Landscape Publicity	3.5	Publicized but not to full extent
Designated Areas	4	Bridge in view, Not all town or Bridge historic
Interpretive Themes	4	Dam w/in view, but bridge is gone
Viewed Landscape Total	11.5	
Viewer Concern		
Visitation	~~N/A~~	3
View Duration	~~N/A~~	4
Viewer Sensitivity	5	
Viewer Concern Total	5	
VIEW IMPORTANCE TOTAL	33.5	

VIEW IMPORTANCE RATING	☐5 (9-15)	☐4 (16-23)	☐3 (24-30)	☑2 (31-38)	☐1 (39-45)

26.5 33.5 -10 (N/A)

RATINGS	Scenic Quality	View Importance	SCENIC INVENTORY VALUE (from matrix below)	VH
	B	2		

Scenic Inventory Value Matrix

Scenic Quality Rating	View Importance Rating 1	2	3	4	5
A	VH	VH	VH	H	M
B	VH	VH	H	M	L
C	H	H	M	L	L
D	H	M	L	VL	VL
E	M	L	VL	VL	VL

C. SAMPLE MAPS

The following two drawings are examples of mapping Cultural Landscape Inventory data (Barge Canal NHL district) and Historic Resource Survey data (adjacent lands, setting of NHL district) for a section of the land-cut pilot area in the Village of Brockport. These maps are illustrative and do not reflect actual GIS data output.

Drawing 1: Sample NHL District Landscape Features Map.

Drawing 2: Sample Adjacent Landscapes Occurrences Map.

Pilot Cultural Landscapes Inventories

New York State Barge Canal

Sample NHL District Landscape Features Map

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

in partnership with
Center for Cultural Landscape Preservation
SUNY College of Environmental Science and Forestry
www.esf.edu/la/cclp

SOURCES

1. NHL District Maps, 2016
2. ESRI ArcGIS aerial imagery, ca. 2000
3. NYSCC GPI Trail Data, 2021
4. Field inventory, 2022

DRAWN BY

Chris Koudelka, Allison Perry, and John Auwaerter
Illustrator Adobe CS, 2022

LEGEND

National Historic Landmark Resources

- Contributing Resource
- Non-Contributing Resource
- NHL district boundary (approximate)

Cultural Landscape Characteristics Key

- S/O = Spatial Organization
- Spatial area limits
- C = Circulation
- L/U = Land Use
- V = Vegetation
- T = Topography
- CWF = Constructed Water Feature
- B/S = Buildings and Structures
- V/V = Views and Vistas
- SSF = Small Scale Features

NOTES

--Map is for illustrative purposes and does not represent spatial (GIS) data output.
--Feature data shown aside from NHL resources was generated by a pilot project and may not be comprehensive.
--Landscape featured mapped on this drawing correlate to the inventory data in table 2.2 (chapter 2).
--Canal prism is shown dewatered (winter conditions).
--See drawing 2 for adjacent landscapes.

0 150 300 Feet

Drawing 1

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Pilot Cultural Landscapes Inventories

New York State Barge Canal

Sample Adjacent Landscapes Occurences Map

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

in partnership with
Center for Cultural Landscape Preservation
SUNY College of Environmental Science and Forestry
www.esf.edu/la/cclp

SOURCES

1. NHL District Maps, 2016
2. ESRI ArcGIS aerial imagery, ca. 2022
3. NYSCC Barge Canal Lands-GPI Trail Data, 2021
4. Field inventory, 2022

DRAWN BY

Chris Koudelka, Allison Perry, and John Auwaerter
Illustrator Adobe CS, 2022

LEGEND

- NHL district boundary (approximate)
- Occurrence Point
- Occurrence Polygon
- Outlying state canal lands (Barge Canal Lands)
- Woodlands and Hedgerows
- Village
- Suburban Residential Area
- Suburban Commercial and Industrial Areas
- Institutional Campus
- Park and Conservation Lands

NOTES

--Map is for illustrative purposes and does not represent spatial (GIS) data output.
--Occurrence data shown was generated by a pilot projct and may not be comprehensive.
--Landscape types and occurrences correlate mapped on this drawing correlate to inventory data in table 2.2 (chapter 2).
--Pilot area shown on this map does not cover all adjacent landscape types.
--Canal prism is shown dewatered (winter conditions).
--White mask denotes approximate limits of surveyed adjacent landscapes
--See drawing 1 for NHL district landscape features.

0 300 600 Feet

Drawing 2

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D. LIST OF CONTACTS

The following individuals were contacted to obtain historical data, existing conditions and mapping/GIS data (on land uses, state-funded projects, and resource inventories in the two pilot inventory areas), and information on Barge Canal operations, facilities data, and projects.

Bell, Rochelle. Senior Associate Planner, Monroe County Planning & Development. RBell@monroecounty.gov

Beyer, Paul. State Director of Smart Growth, New York State Department of State. Contact for NYS Local Waterfront Revitalization Program—state-funded projects along the canal. Paul.Beyer@dos.ny.gov

Carter, James. Historic Preservation Program Analyst, New York State Historic Preservation Office (NYS Office of Parks, Recreation and Historic Preservation), Survey and National Register Unit. Contact for projects that have been reviewed under Sections 14.09 and 106, and upcoming survey and National Register work. James.Carter@parks.ny.gov

Conrad, Nicholas. Information Resources Coordinator, New York Natural Heritage Program (SUNY ESF in partnership with NYS Department of Environmental Conservation). Information on rare and endangered species in two pilot areas. Nick.Conrad@dec.ny.gov

DeLuca, Jaime. Director, Technical Services, New York State Canal Corporation. Contact for canal GIS data. jaime.deluca@canals.ny.gov

Flanigan, Amie. Project Archivist, Erie Canal Museum. archives@eriecanalmuseum.org

Hay, Duncan. National Park Service Historian (retired); author, New York State Barge Canal National Historic Landmark nomination. Main contact for Barge Canal history and sources.

Hughes, Rebecca. Executive Deputy Director, New York State Canal Corporation. Primary project contact at the Canal Corporation. Rebecca.Hughes@nypa.gov

Kehoe, Jeffrey. Agricultural Protection Planner, New York State Department of Agriculture and Markets. Information on agricultural districts in pilot areas. jeffrey.kehoe@agriculture.ny.gov

Kuttesch, Alex. Senior Planner/GIS Specialist, Montgomery County Planning & Economic Development. County GIS data and agricultural districts. akuttesch@co.montgomery.ny.us

Lengel, Matthew. Director, Asset Management & Inspection, New York State Canal Corporation. Main contact for information on canal facilities, operations, and maintenance. Matthew.Lengel@canals.ny.gov

Lippa, Todd. Principal Engineering Technician, Division Canal Engineer West. Provided video footage of the canal and information on operations and maintenance. Todd.Lippa@canals.ny.gov

Meyer, Mark. Visual Resource Specialist, National Park Service. Information on integrating historic values into the NPS Visual Resource Inventory. Mark_Meyer@nps.gov

Radliff, Bob. Executive Director, Erie Canalway National Heritage Corridor. Project lead and source of information on the heritage corridor and canal communities. bob_radliff@eriecanalway.org, bob_radliff@partner.nps.gov

Rockwell, Stephanie. Mapping Technologist 2, New York State Canal Corporation. Provided Canal Corporation GIS data. stephanie.rockwell@canals.ny.gov

Schillinger, Jackie. Senior Communications Strategy Manager, New York State Canal Corporation. Contact for Canal Corporation involvement with communities. Jacqueline.Schillinger@canals.ny.gov

Waldorf, Jessica. Chief of Staff & Director of Policy Implementation, NYS Department of Public Service. Contact for information on power utilities—transmission lines, solar farms, etc. Jessica.Waldorf@dps.ny.gov

National Park Service
U.S. Department of the Interior

National Park Service
Olmsted Center for Landscape Preservation
Boston, Massachusetts
www.nps.gov/oclp