
National Park Service
Cultural Landscapes Inventory
2010



Seneca Lock
Chesapeake and Ohio Canal National Historical Park

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Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on or eligible for listing on the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the NPS has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation, concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

The information contained within the CLI is gathered from existing secondary sources found in park libraries and archives and at NPS regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or

treatment guidelines for the cultural landscape.

Inventory Unit Description:

Seneca Lock is a component landscape of the Chesapeake and Ohio Canal National Historical Park (C&O NHP). The inventory unit consists of about 30 acres and is located at the mouth of Seneca Creek in Montgomery County, Maryland. The northern boundary of the project area is the northern boundary of the C&O Canal lands owned in fee. Its eastern boundary is several hundred feet east of the canal basin located adjacent to Lockhouse 24 at Mile 22.80. The western boundary is at Mile 23.65, the location of a section of berm-side sandstone retaining walls. These walls are located about three-tenths of a mile west of Culvert 35 (Bull Run Creek Culvert).

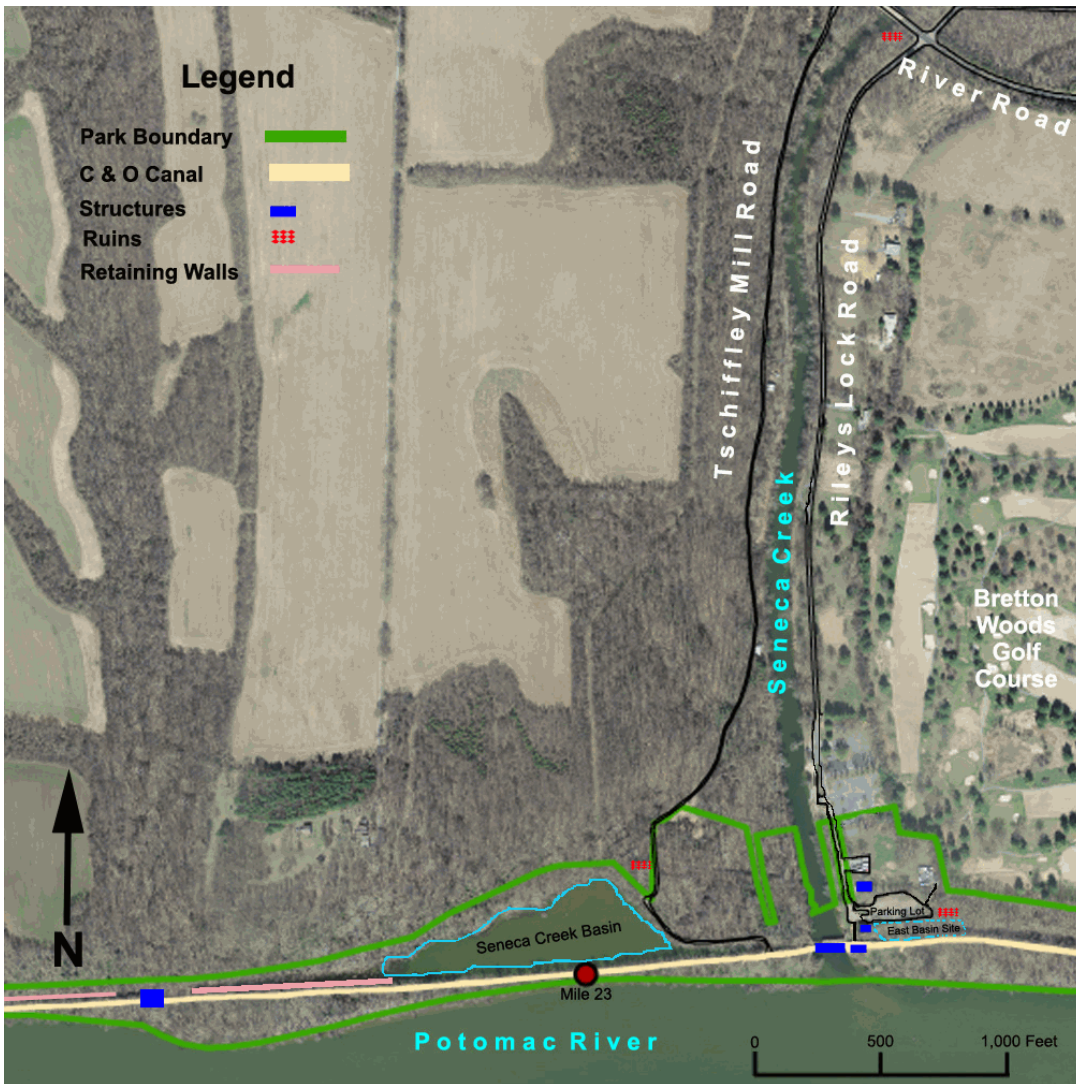
The National Register nomination was accepted by the Keeper on August 9, 1979. The Chesapeake and Ohio Canal is listed on the National Register under Criteria A and C for its architecture, engineering, commerce, transportation, conservation and military history. The period of significance is listed as 1828–1924. Although the C&O Canal is defined as a historic district having national significance, its National Register nomination does not adequately or completely document all of the contributing landscape features.

The period of significance for the Seneca Lock component landscape is the same as for the C&O NHP – 1828 to 1924 – the years that span the canal’s construction, operation, decline and final closure. Like the rest of the canal, Seneca Lock reflects the ascent of canal-based transportation and its ultimate decline in nineteenth-century America. Therefore, the landscape and its events have made a significant contribution to the broad patterns of history (National Register Criterion A). Illustrative of vernacular and industrial stone construction, the canal landscape also contains individual resources that embody the distinctive characteristics of a type, period or method of construction (Criterion C).

This CLI finds that the Seneca Lock cultural landscape retains integrity for its period of significance, 1828-1924 with all seven aspects of integrity represented. While there have been some changes to the landscape and the loss of some features, the overall integrity of Seneca Lock is high and the landscape invokes the historic significance of the property.

Although Seneca Lock exhibits strong integrity, the cultural landscape is in fair condition. This is largely due to the condition of the ruins and constructed water features that date to the period of significance. A major impact on the condition of the landscape is the state of the Seneca Aqueduct. Seriously damaged in 1971, this key structure, while stable needs to be repaired. Deferred maintenance has left other Seneca Lock structures in fair to poor condition and stabilization and repairs are needed.

Site Plan



*Map developed using Aerial Imagery: 2008, 6Orthography
Maryland State Highway Administration and GIS layers provided by NPS/NCR.*

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

This CLI represents a continuation of the documentation of component landscapes at Chesapeake and Ohio Canal National Historical Park. Both primary and secondary sources were consulted, and resources from both within and outside the National Park Service were utilized. In depth site investigations were conducted by the National Capital Region Cultural Landscape Program (CLP) for the Analysis and Evaluation section.

The report was written and researched by Martha Temkin, Regional Cultural Landscapes Inventory Coordinator (NCR). Sam Tamburro, Historian, Chesapeake and Ohio Canal National Historical Park provided valuable insight during the inventory process. Also, the following National Capital Region staff provided editing assistance: Maureen Joseph, Regional Historical Landscape Architect and Saylor Moss, Historical Landscape Architect.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	09/17/2010
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/27/2010

National Register Concurrence Narrative:

The State Historic Preservation Officer for the state of Maryland concurred with the findings of the Seneca Lock Cultural Landscape Inventory on September 27, 2010 in accordance with Section 110 of the National Historic Preservation Act. It should be noted that the "National Register Eligibility Concurrence Date" refers to this Section 110 Concurrence, and not the date of listing on the National Register.

Concurrence Graphic Information:

Seneca Lock
Chesapeake and Ohio Canal National Historical Park



United States Department of the Interior

NATIONAL PARK SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D.C. 20242

September 1, 2010

Memorandum:

To: Cultural Landscape Inventory Coordinator, National Capital Region
From: Superintendent, Chesapeake and Ohio Canal National Historical Park
Subject: Statement of Concurrence, Seneca Lock Cultural Landscape Inventory

I, Kevin Brandt, Superintendent of Chesapeake and Ohio Canal National Historical Park, concur with the findings of the Cultural Landscape Inventory for Seneca Lock including the following specific components:

MANAGEMENT CATEGORY: Must Be Preserved and Maintained

CONDITION ASSESSMENT: Fair

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's 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: indicates the inventory unit shows 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 character defining elements, will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit 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.

The Cultural Landscapes Inventory for Four Seneca Lock is hereby approved and accepted.


Superintendent, Chesapeake and Ohio Canal National Historical Park

9-17-10
Date

Concurrence memo signed by the CHOH Superintendent (acting) on 9/17/2010.



United States Department of the Interior

NATIONAL PARK SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D.C. 20242

September 1, 2010

Memorandum

To: Cultural Landscapes Inventory Coordinator, National Capital Region
From: State Historic Preservation Officer, Maryland
Subject: Statement of Concurrence, Seneca Lock Cultural Landscapes Inventory

I, J. Rodney Little, Maryland State Historic Preservation Officer, concur with the findings of Seneca Lock Cultural Landscapes Inventory as submitted on September 1, 2010.

J. Rodney Little
Maryland State Historic Preservation Officer

9-27-10
Date

Concurrence memo signed by the MD SHPO on 9/27/2010.

Geographic Information & Location Map

Inventory Unit Boundary Description:

Seneca Lock is a component landscape of the Chesapeake and Ohio Canal. The inventory unit consists of about 30 acres and is located at the mouth of Seneca Creek in Montgomery County, Maryland. The northern boundary of the project area is the northern boundary of the C&O Canal lands owned in fee. Its eastern boundary is several hundred feet east of the canal basin located adjacent to Lockhouse 24 at

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Mile 22.80. The western boundary is at Mile 23.65, the location of a section of berm-side sandstone retaining walls. These walls are located about three-tenths of a mile west of Culvert 35 (Bull Run Creek Culvert).

State and County:

State: MD

County: Montgomery County

Size (Acres): 30.00

Boundary UTMS:

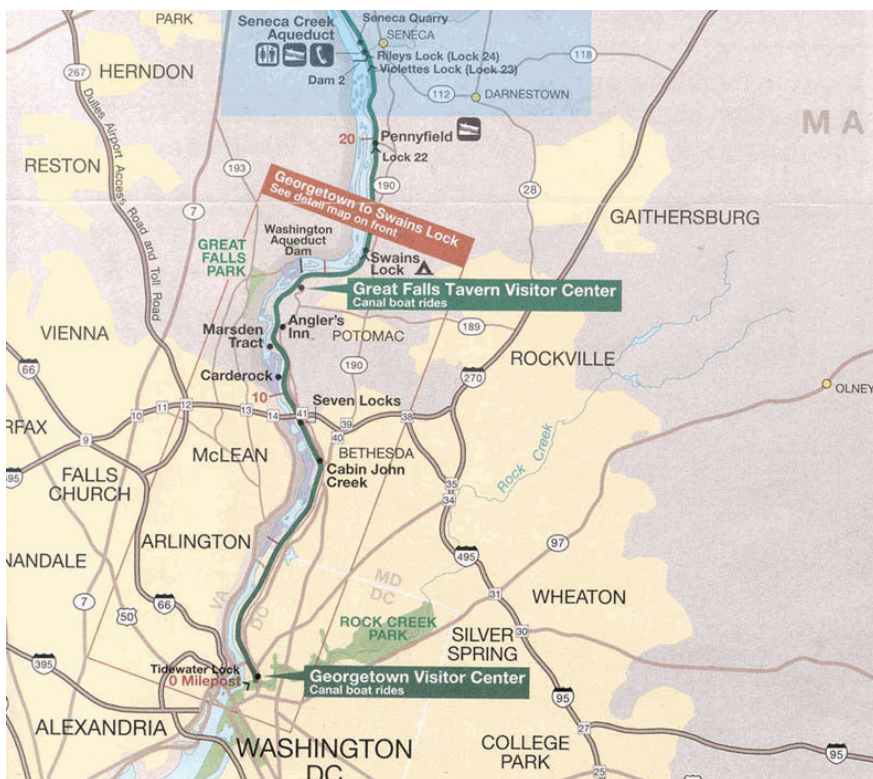
Source:	USGS Map 1:100,000
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	297,550
UTM Northing:	4,326,997
Boundary Datum Other:	Seneca Aqueduct point

Source:	USGS Map 1:100,000
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	297,700
UTM Northing:	4,327,025
Boundary Datum Other:	Eastern end of the project area.

Source:	USGS Map 1:100,000
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	296,547
UTM Northing:	4,326,992
Boundary Datum Other:	Western end of the project area.

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Location Map:



Section of C&O NHP map. Seneca Lock area is highlighted in blue at the top of the map.

Tract Numbers: 14-133 (portions of), 60-106, 07-100, 07-101, 07-102, 07-103, 07-104, 07-105, 07-106, 07-107, 07-108, 07-109, 07-111, 07-112, 07-113, 07-1114

Management Information

General Management Information

Management Category: Must be Preserved and Maintained

Management Category Date: 09/17/2010

Management Category Explanatory Narrative:

Seneca Lock is included in the National Register Nomination for the Chesapeake and Ohio Canal. The management category is 'Must be Preserved and Maintained' because it is listed in the National Register Nomination as nationally significant. The date of the management category is the date the CLI was approved by the CHOH Superintendent.

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: Unrestricted

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Description:

Adjacent lands contribute to the Seneca Lock cultural landscape in several ways. The red sandstone quarries and 19th-century stone-cutting building or mill that are located just north of the Seneca Creek Basin, between Mile 22.90 and Mile 23.65 were key elements of the industrial use of the site. Some of these historic features are located on property owned by the state of Maryland and part of Seneca Creek State Park. The views up Seneca Creek to the north and across the Potomac River also contribute as they are part of the recreational attraction of the area, as well as historic in nature. The NPS holds a scenic easement on 6.45 acres of land just north of the eastern basin, which is currently a golf course. This narrow stretch of property runs east almost to Dam 2 (Mile 22.22).

National Register Information

Existing NRIS Information:

Name in National Register:	Chesapeake and Ohio Canal National Historical Park
NRIS Number:	66000036
Primary Certification Date:	10/15/1966
Other Certifications and Date:	Additional Documentation - 8/19/1979

Significance Criteria:	A - Associated with events significant to broad patterns of our history
Significance Criteria:	C - Embodies distinctive construction, work of master, or high artistic values
Significance Criteria:	D - Has yielded, or is likely to yield, information important to prehistory or history

Period of Significance:

Time Period:	AD 1828 - 1924
Historic Context Theme:	Developing the American Economy
Subtheme:	Shipping and Transportation by Water
Facet:	Canals
Time Period:	AD 1828 - 1924
Historic Context Theme:	Expanding Science and Technology
Subtheme:	Technology (Engineering and Invention)
Facet:	Transportation
Time Period:	AD 1828 - 1924
Historic Context Theme:	Transforming the Environment
Subtheme:	The Industrial Revolution
Facet:	Degradation of Natural Environment

Area of Significance:

Area of Significance Category:

Engineering

Area of Significance Category:

Commerce

Statement of Significance:

The inventory unit, a component landscape of the C&O NHP, is located at the mouth of Seneca Creek, from approximately Mile 22.40 to Mile 23.65. The National Register nomination, authored by Philip S. Romigh and Barry Mackintosh, was accepted by the Keeper on August 9, 1979. The Chesapeake and Ohio Canal is listed on the National Register under Criteria A and C for its architecture, engineering, commerce, transportation, conservation and military history.

The period of significance for the Seneca Lock component landscape is the same as for the C&O NHP – 1828 to 1924 – the years that span the canal’s construction, operation, decline and final closure. Like the rest of the canal, Seneca Lock reflects the ascent of canal-based transportation and its ultimate decline in nineteenth-century America. Therefore, the landscape and its events have made a significant contribution to the broad patterns of history (National Register Criterion A). Illustrative of vernacular and industrial stone construction, the canal landscape also contains individual resources that embody the distinctive characteristics of a type, period or method of construction (Criterion C). In addition, the Seneca Lock cultural landscape has yielded or is likely to yield, information important to prehistory or history (Criteria D).

The principle areas of the canal’s historical significance are architecture, engineering, commerce, transportation, conservation and military history. All of these areas of significance also apply to the cultural landscape, with the addition of archeology. The canal and its associated structures serve as an excellent example of nineteenth-century canal-building technology and engineering. This is especially true at Seneca Lock, where the Seneca Aqueduct was the first to be built along the canal and the only one in which the lock and aqueduct are incorporated into one structure. Many canal structures, such as lockhouses and culvert face walls, were also architecturally treated with aesthetic features added for visual enhancement. The canal served as a major commercial trade route in the Potomac River valley during the mid-nineteenth century, conveying a significant amount of food, fuel and building materials. It also led to the creation of numerous businesses along its path. At Seneca Lock these included stone quarries, grist mills, a feed store and several warehouses. The Seneca Lock landscape was also impacted by several military operations during the Civil War in which canal and other structures were damaged or destroyed. The Seneca Lock project area has also been the site of human habitation from prehistory, through the early colonial day, the Canal era and on into the present. Each of these historic periods has potentially left behind archaeological resources.

The Seneca Lock cultural landscape is historically significant in the same ways as the rest of the C&O Canal, but there is an additional element of significance. The area was the site of red sandstone quarrying which may date to the pre-Revolutionary War era. The quarries at Seneca not only supplied

the building stone for many locks and other structures along the C&O Canal, it was also where stone for George Washington's Pawtomack Canal on the Virginia side of the river was dug. In addition, the Seneca quarries supplied the stone used in the building of the Smithsonian Castle and many other historic buildings in Washington D.C. and other cities.

State Register Information

Identification Number: M:17-63
Date Listed: 01/05/1977
Name: Seneca Historic District

Chronology & Physical History

Current and Historic Use/Function:

Primary Historic Function: Commerce/Trade-Other
Primary Current Use: Outdoor Recreation

Current and Historic Names:

Name	Type of Name
Seneca Lock	Both Current And Historic
Rileys Lock	Both Current And Historic
Seneca Landing	Historic

Ethnographic Study Conducted: No Survey Conducted

Chronology:

Year	Event	Annotation
AD 1608 - 1609	Explored	John Smith explores the Potomac River, and maps the Chesapeake Bay and environs, including Seneca. (Offutt, 1997)
AD 1731	Land Transfer	A land patent of 1,086 acres near Seneca Creek granted to Richard Brightwell as "Brightwell's Hunting Quarter." The patent began at the mouth of Seneca Creek and continued about 4 miles west towards what is now Edward's Ferry. (Sween, 1993 MCHS)

AD 1732	Land Transfer	“Seneca Ford” and adjoining property “Mill Road” are surveyed for Cornelius Elting. The naming of the Mill Road property suggests the presence of a mill on Seneca Creek by this time. While it is not clear exactly where this first mill is located, research suggests that a mill was in existence where River Road crosses Seneca creek from at least the early 19th century and probably earlier. (http://senectrail.s457.sureserver.com/seneca.htm) Note: The mill is not on National Park Service property. Further references in this chronology to a mill at Seneca refer to this location unless otherwise noted.
AD 1754	Established	It is noted in the Maryland Gazette that James Perry and John Bond run a copper mine along Seneca Creek; however, no modern geological studies show copper appearing in the area. (http://www.senecatrail.ingo/history.htm)
AD 1775	Land Transfer	Abraham Ferree, a son-in-law to Cornelius Elting, conveys Seneca Ford to his son-in-law, George Graff. (http://senectrail.s457.sureserver.com/seneca.htm)
AD 1778	Land Transfer	George Graff sells Seneca Ford to Charles Beaty, Bernard O’Neill, and William Deakins. In 1790, the tract is advertised as ‘situated on the mouth of Seneca Creek and the boat navigation of the Patowmack’. (http://senectrail.s457.sureserver.com/seneca.htm)
AD 1781	Land Transfer	After the Revolutionary War, the property of Loyalist Daniel Dulany Jr is confiscated and sold. Lots 2 through 7 of the land are bought by Robert Peter, Mayor of Georgetown, and lots 1 and 8 are bought by William Deakins of Georgetown, a member of the Committee of observation and friend of George Washington. (Seneca Historic District NR, 1977:6)
AD 1784	Planned	George Washington believes it is crucial to better link the Ohio Valley with the rest of the colonies to encourage allegiance and loyalty and that the Potomac route is far superior to the New York Lake Erie route being supported by other states. (http://www.nps.gov/grfa/historyculture/canal.htm)

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AD 1784 - 1802	Established	Largely through the influence of George Washington, in October 1784, the Virginia Assembly passes an act officially incorporating the 'Pawtomack Company', and in November 1784, the charter is affirmed by the Maryland Assembly. The purpose of the company is to open the Potomac River to navigation. From 1785-1802, the company proceeds with construction of canals around the falls of the Potomac, completing the locks at Great Falls on the Virginia side in 1802. (http://www.nps.gov/grfa/historyculture/canal.htm)
AD 1785	Established	A quarry at Seneca is established in part to supply stone for the building of the Potomac Canal locks. (Seneca Quarry NR 1973)
AD 1785 - 1802	Built	The Pawtomack Company constructs the skirting canal along the Virginia side of the Potomac River to bypass Little Falls and Great Falls and builds the locks at Great Falls. The first major quarrying of Seneca sandstone is used to built these locks. A contract was let to a Mr. John Henry to quarry and cut 18,000 feet of stone from Peter's Quarry at Seneca. The amount of stone in this contract was later reduced because not enough stone could be extracted from 'within the fence of Thomas Peter'. (Kapsch, 2007:98, 103)
AD 1787	Established	John Garrett lays out a town on the west side of Seneca Creek and gives away lots as lottery prizes in the same year. The town was to be named Newport, but it was never successfully developed. (Sween 1993 MCHS)
AD 1794	Built	William Smith, Samuel Williams, and Thomas Beall now run the Seneca Ford Mill. At this time it runs two pairs of Burrs and one pair of country stones, on the Seneca. (http://senectrail.s457.sureserver.com/seneca.htm)
AD 1802	Land Transfer	Robert Peter dies, leaving his Seneca properties to his sons, Thomas, George and David. (Seneca Historic District NR, 1977:) The brothers own properties that stretch west from Seneca Creek at least as far as Beaver Dam Creek (1894 Canal Survey Map) and develop marble and sandstone quarries. Thomas Peter, who is married to Martha Custis, granddaughter of Martha Washington, owns property between Seneca Creek and Bull Run (within this CLI project area). (Seneca Historic District NR, 1977:)

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AD 1812	Land Transfer	Thomas Peter, son of Robert Peter, receives 333 and 1/2 acres near Seneca Creek when his father dies. (Sween, 1993 MCHS)
AD 1825	Land Transfer	By 1825, Washington Bowie owned "part of 'Seneca Ford' and Mill thereon" plus 280 acres of "Middle Plantation," "Thomas Discovery" and some islands in the Potomac. The mill is on the north side of River Road and is later moved to the other side. By 1860, it has 5 running stones. (http://senectrail.s457.sureserver.com/seneca.htm)
	Established	The Chesapeake & Ohio Canal is chartered following the first C& O Canal Convention. The rights to the Potomac River originally granted to the Potomac Canal Company are transferred to the C& O Canal Company. (C& O Canal NR, 1979:7)
AD 1828	Abandoned	The Pawtomack Canal is abandoned. (http://www.nps.gov/grfa/historyculture/canal.htm).
	Built	On July 4, groundbreaking occurs for both the Chesapeake & Ohio Canal in the Washington, DC area and for the Baltimore & Ohio Railroad in Baltimore. (Unrau, 2007:637)
	Built	Construction of the Seneca Aqueduct begins in 1828. The contract is awarded to Holdsworth and Isherwood on October 28. (Unrau, 1976:7-8)
AD 1828 - 1829	Established	Seven post offices are established along the canal route, with one at Seneca Mills. (Unrau, 2007:189) The postmaster is a Mr. David Traister. It later moved to a store located in a house near Lock 24, operated by Frederick Allnutt. By 1901, the Post Office is located in Allnutt's new store on River Road. (Sween, 1993 MCHS)
AD 1829	Land Transfer	Sometime between 1812 and 1829, Thomas Peter transfers some of his land holdings along the Potomac River near Seneca Creek to his son John Parke Custis Peter. When the canal company begins to purchase land near Seneca Creek in 1829, John P.C. Peter already owns land between Bull Run and Seneca Creek. (Montgomery County, MD Land Records)

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AD 1829 - 1830	Land Transfer	Land for the canal right-of way within the Seneca Lock area, is obtained in 1830. On the east side of Seneca Creek the property was owned by two descendents of Elizabeth Threlkend, Mary Grayson and Jane Cox. Cox was the wife of the mayor of Georgetown. On the west side of the creek, the land was owned by John Parke Custis Peter. Both parties refuse for the better part of two years to sell to the canal company and it isn't until 1830 that the land was purchased via condemnation hearings. Under the terms of Peter's deed, the canal company is given the right to quarry 20,000 cubic yards of earth and 5,500 perces of stone from a quarry located on Peter's adjacent property. The earth was to be extracted with 27 months and the stone within 3 years. (Unrau, 1976:5-6; Montgomery County Land Records)
AD 1829 - 1833	Built	Between 1829 and 1833, eighteen locks were constructed all or partially of red sandstone from the quarries at Seneca. Of these, fifteen were constructed solely of sandstone. The Seneca Aqueduct (Aqueduct 1) was also built using this stone. (Unrau, 2001:159-160)
AD 1829 - 1832	Built	In October of 1828 the contract for Lock 24 is let to Holdsworth and Isherwood. In March, 1829 construction begins and by March, 1832 construction of the lock is completed. (Unrau, 2001:230)
AD 1829 - 1830	Built	The contract for the construction of the Lockhouse at Lock 24 is let to Holdsworth and Isherwood in 1828. Construction begins in November, 1829 and the building is completed in April, 1830. This lockhouse is identified as Lockhouse No. 16 in the Canal company records. (Unrau, 2007:245)
AD 1829	Damaged	The canal is damaged by an August freshet. Seneca is among the harder hit sections. This the first flood event to damage the canal. (Unrau, 2007:189)
AD 1830	Inhabited	Two engineer residencies covering the canal between Georgetown and Point of Rocks are established. The first extends from the Tide Lock in Georgetown to Section No. 40 (just past Seneca) and the second from there to Point of Rocks. The office of the first resident engineer, Thomas F. Purcell, is located near Seneca Creek. (Unrau, 2007:193)

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AD 1830 - 1840	Built	A house known as the Quarry Master's House is built on the hill overlooking the quarries and the stone cutting building. Built of red sandstone, the house is noted as 'an integral member of the [Seneca] quarry complex.' (MHT Inventory 1979). The two and one-half story structure has two rooms on each floor a fireplace in each west room and a gable roof with two dormers. This building is not located on National Park Service (NPS) property. (NR 1973:2)
AD 1831	Built	The contract for the construction of the aqueduct wing walls is awarded to Obidiah Gordon in March. This construction was not included in the original contract. (Unrau, 1976:19, 2). Also in March a contract for an iron railing on the towpath side of the aqueduct is let to Gideon Davis. (Unrau, 1976:24)
	Established	The canal between Little Falls and Seneca Falls (Lock 23) is opened to navigation. (Unrau, 2007:193)
	Established	Packet boats began operating from Georgetown to Seneca Falls. As the canal opened further west, these pleasure boats began to take passengers further and by 1836 service extended to Williamsport. The Seneca area was a popular destination point as was Great Falls and Harpers Ferry. (Unrau, 2007:338-341)
AD 1832	Built	The Seneca Aqueduct is completed in the spring of 1832. The wingwalls and railing were completed later that year. (Unrau, 1976:6, 26)
AD 1833 - 1834	Established	By the end of 1833, water had been admitted into the canal at Harpers Ferry (Dam No. 2) and had reached Seneca Lock. In April of 1835, 64 miles of the canal was completed. (Unrau, 2007:202, 204)
AD 1833	Established	A quarry (possibly the Potomac Red Sandstone Company) signs a contract with the Canal company for 1,250 inches of water at 50 cents per inch per annum (National Register, Seneca Quarry 1973:5)
AD 1833 - 1834	Inhabited	A lockkeeper is installed at Seneca Lock after the canal opens to this point. The name of this first lockkeeper is unknown. There has been a lockkeeper in charge of Lock 23 and Guard Lock 2 since 1830. (Unrau, 2007:786)

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AD 1836	Damaged	A major flood cause serious damage to the canal, including six breaches between Seneca and Little Falls. (Shaffer, 1997:8) Navigation was disrupted between Georgetown and Harpers Ferry for several weeks (Unrau, 2007:210)
AD 1837 - 1870	Built	A stone-cutting mill was built by the Seneca Sandstone Company at the northeast corner of the canal basin located west of the aqueduct. (Unrau, 2007:164) There is some confusion as to the exact date of this structure's construction. The 1865 Donn map does not show this building, but the National Register Nomination says it was built circa 1830 and doubled in size sometime after. Further research is needed. Note: This building, now a ruin is located outside the NPS boundary.
AD 1839 - 1850	Inhabited	Charles H. Shanks is the lockkeeper for Lock 24 and remains until at least 1842. In 1845 John Wells becomes the lockkeeper and remains until at least 1850. (Unrau, 2007:Chapter 9 - Appendices E-K)
AD 1843 - 1847	Damaged	Several flood events occurred during these years, but damage to the Seneca Lock area consisted largely of breaches which were quickly repaired. (Unrau, 2007:282-290)
AD 1847 - 1848	Built	The Smithsonian 'Castle' is built with Seneca sandstone (NR 1973:3.) The building's architect, James Renwick, visits the quarries at Seneca and stone is contracted from the Bull Run Quarry. (Kapsch, 2006 Quarry map)
AD 1850	Built	The C& O Canal is completed and navigable from Cumberland to Georgetown, 184 and .40 miles. On October 10, it formally opens with a ceremony replete with speeches, a military band, and cannon salutes. (Unrau, 2007:226)
AD 1852	Damaged	In April the most severe flood to date occurs leaving the canal in 'shambles' below Seneca. (Shaffer, 1997:23) It took nearly 10 weeks to restore full navigation. Several improvements were made along the canal to counter effect the effects of future flooding. One of these was the construction of new waste wiers along levels where overflow was an issue. This included the stretch between Seneca and Dam 2. (Unrau, 2001:294)

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AD 1855	Land Transfer	Upton Darby and his father, John, become the new owner of the Seneca Mill. They purchase from the heirs of Francis P. Dodge 'all that part...of 'Thomas Discovery' and part of 'Seneca Ford or Forks', at or near the mouth of Seneca Creek, containing 93 and 1/2 acres.' They owned and operated the mill as John Darby and Son. Later, Upton ran the mill with his son Ernest H. Darby. It remained in the Darby family until 1900. (Upton Darby House and Poole's General Store MHT Inventory Form, 1978)
AD 1855 - 1900	Reconstructed	Darby's Mill at Seneca burned twice during his ownership. Both times it was rebuilt. (http://senectrail.s457.sureserver.com/seneca.htm)
AD 1855 - 1865	Built	A narrow-gauge railway was built to carry flour and other mill products from the mill down to the Darby's warehouse, located on the eastern canal basin adjacent to Lock 24. (http://senectrail.s457.sureserver.com/seneca.htm) It is not known precisely when the railway and warehouse was built, but it appears on an 1865 map. (1865 Donn Map)
AD 1857	Damaged	A succession of floods nearly puts the canal out of business with a February ice freshet and three spring floods. It takes until August to restore navigation to the entire canal. (Shaffer, 1997:30-36)
AD 1861 - 1865	Military Operation	The Civil War effectively makes the Potomac River a physical barrier between the North and South, and the C&O Canal and B&O Railroad become objects of many Confederate raids. (Unrau, 2007: Ch.11)

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AD 1863	Military Operation	On June 24, General 'Jeb' Stuart brought the war to Seneca Lock. In an attempt to connect with Confederate troops marching toward Pennsylvania, Stuart's troops cross the Potomac River just below Seneca Creek and seized the canal from Lock 23 to the Seneca Aqueduct. Twelve canal boats were commandeered, two transporting Union soldiers and the rest carrying grain. Before heading off to Rockville with the prisoners and cargo, Stuart ordered nine boats burned, the gates at Lock 23 and Guard Lock 2 destroyed and the towpath embankment breached. It took only until June 30 for the damage to be repaired and the canal to open again between Seneca and Georgetown. (Unrau, 2007:749)
AD 1864	Military Operation	During Lieutenant General Jubal Early's summer march on Washington, Confederate raiding parties destroyed the gates at Lock 24, as well as causing further damage west to Lock 29. Navigation was not completely restored until September. (Unrau, 2007:759-760)
AD 1865 - 1867	Restored	In April of 1865, restoration and improvement work on the canal begins in earnest and is completed by 1869. At this time, the canal was said to be '...fully recovered from all damages growing out of the war. The whole line is now in thorough, complete and safe condition.' (Unrau, 1977:774-775)
AD 1870 - 1877	Damaged	Several serious floods occur during this period. In the Seneca area, damage is generally in the form of prism breaches. The November 1877 flood, the worst in 150 years, leaves the entire canal a 'wreck' and ends the season. Due to a warm winter, the damage was well enough repaired to allow for navigation to resume in April, 1878. This was only one month later than normal. (Unrau, 2007:302-307)
AD 1870 - 1875	Maintained	By 1870, the C& O Canal Company pays off a good percentage of its debt and, has five years of unprecedented profits. In spite of the damage caused by various flood events between 1870 and 1877, this is the 'Golden Era' of the C& O Canal. The canal prism, towpath, locks, weirs and bypass flumes are regularly maintained. (Unrau, 2007:478)

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AD 1871 - 1872	Built	Two warehouses are built near Lock 24. A lease was granted to John Darby for 'as much land as may be necessary to erect a warehouse on (the) berm side at Mouth of Seneca'. A fifteen-year rent-free lease was granted to James H. Gassaway, America Dawson, Samuel Dyson and others to build a warehouse at Seneca. These warehouses were used for 'freighting grain'. They were located on the berm side of the eastern canal basin. (Unrau, 2007:694).
AD 1873 - 1874	Restored	The berm-side parapet and spandrels of the Seneca Aqueduct are rebuilt. (Unrau 1976:vi)
AD 1873	Restored	The roof and upper floor of the Lockhouse at Lock 24 burned. It is assumed that repairs were made shortly thereafter. (Unrau, 1978:25)
	Built	In January, E. M. Lowe leased land at Seneca Lock for a feed store. The building was moved from the Virginia side of the river and reconstructed on the towpath side of the canal. It was located almost directly across Lock 24 from the Lockhouse. (Unrau, 20017:832)
AD 1879	Built	A telephone system is installed along the canal. At the time, it was the longest in the world. The closest telephone to Seneca Lock was at the Seneca Feeder Lock near Lock 23. (Unrau, 491, 593)
AD 1880	Restored	In June, 1880 a report to the canal's stockholders states all parts of the canal that were damaged in the 1877 flood have been 'thoroughly repaired and strengthened' and that that it was in better condition than it had been since 1860. (Unrau, 2007:308)
AD 1886	Damaged	Three spring freshets cause much damage to the canal. Repairs are largely completed by that summer. (Unrau, 2007:312-311)

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AD 1889	Damaged	The same rains that cause the 'Johnstown Flood' wreak destruction along the entire canal. In the Seneca area, Lock 24 was damaged and a break in the towpath, just west of Seneca Creek was 150 feet long and 4 feet below the bottom. The canal company was unable to raise the money needed for repairs, sending it into receivership. The B& O Railroad eventually emerges as the majority owner. As long as they keeps the canal profitable, they prevent the sale of the route, thereby blocking competitor railroads. (Unrau, 2007:313-315).
AD 1890 - 1893	Restored	After being largely abandoned for eighteen months, the B& O Railroad begins to repair the damage to the canal from the 1889 flood. The canal was not completely rewatered until August 1891 and did not open for navigation until the following month. Repairs continued through the following spring. (Unrau, 2007:316)
AD 1890 - 1924	Damaged	Several freshets occur during this time, but none cause serious damage and the railroad is able to keep the canal repaired and operating. (Unrau, 2007:317)
AD 1890	Maintained	Canal records show that two storehouses or granaries are located near Lock 24. One is leased by William A West. (Unrau, 2007:694). These are likely the same warehouses built in the early 1870s. The West family owned property adjacent to the canal on the east side of Seneca Creek. (1865 Martenet and Bond Map of Montgomery county)
AD 1892 - 1924	Inhabited	John Riley becomes the last lockkeeper at Seneca. (Kytle 1983:226)
AD 1893	Destroyed	The Seneca Stone Company paid \$833.33 for the use of water power provided by canal water. This was probably the power used to operated the stone cutting building at Seneca. (NR 1973:5)
AD 1900	Abandoned	The Seneca Stone Company ceases commercial operations at Seneca. The stone cutting building is abandoned. (Seneca Quarry NR, 1973)
	Land Transfer	Ernest Darby, the son of Upton Darby, sells the mill under disclosure proceedings to Wilson B. Tschiffely. The Tschiffely family operates the mill until 1931, when it closes. (Upton Darby House MHT Inventory form, 1978:1)

AD 1913	Built	A recreational cabin is built by the 'Seneca Camp Club' at the mouth of Seneca Creek, on the upstream side, between the canal and the river. The club consisted of a group of young people from Montgomery County who wished to have a summer retreat. They leased the land from the canal company for \$10 dollars per year. The building is two-stories with an outside kitchen and lean-to for the chef. It is sold (date unknown) and then operated as power boat station. (MCHS 1959, 1971) The building remains in place until at least 1939 (DSC TIC 412-80704). Further research is needed to determine when it was demolished.
AD 1924	Damaged	A major flood occurs, the worst in thirty-five years. Flood damage in the Seneca area is not recorded, but the high water causes serious damage to the entire canal. (Shaffer 1997)
	Abandoned	Following the 1924 flood, the C& O Canal is abandoned by the B& O Railroad which only rewaters the Georgetown Level (the lower five miles from the river inlet at Lock 5 to Georgetown). The railroad company does enough repair work overall to suggest that the canal could be put back into operation if business warranted, but it was only technically going concern. This was effectively the end of the C& O Canal. (Unrau, 2007:317-318)
AD 1936	Destroyed	The most devastating flood in the history of the Potomac Valley occurs in the spring. There is no record of the damage between Lock 5 and Seneca Creek, but most of Dam No. 1 was destroyed down to its foundation and much of the now-abandoned canal was wrecked. Just above the Seneca Aqueduct there was a major break. Repairs were made to the dam at Little Falls and to the banks in the Georgetown Level, so that the Georgetown businesses would receive their water power. (Unrau, 2007:319,321)

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AD 1938	Land Transfer	The Federal Government purchases the entire C& O Canal from the B& O Railroad. The government had been thinking about taking over the canal since the 1924 flood. Early ideas for the site included turning it into a highway. After years of negotiations with the railroad the deed is acquired by the government on September 28, 1938. The NPS becomes the managing agency with the lower 23 miles of the canal administered as part of the National Capital Parks system. Plans for the canal include restoring the first 22 miles (approximately between Georgetown and Lock 23). (Mackintosh, 1991:11-20)
AD 1938 - 1940	Restored	In 1941, the Civilian Conservation Corps (CCC) begins restoration of the canal and lock system from Georgetown to Lock 23 (Violette's Lock). Two CCC camps were established near Carderock and all the enrollees were African-American. The canal locks and other structures were repaired and/or replaced and the canal was rewatered up to the Inlet Lock near Lock 23, by the fall of 1940. (Mackintosh, 1991:21-38)
AD 1942	Destroyed	Much of the reconstruction work done by the CCC is undone by an October flood. Due to the outbreak of World War II the previous year, little canal repair work was done until after it's end in 1945. (Mackintosh, 1991:46-48)
AD 1948 - 1950	Planned	A reconnaissance study to determine the advisability of constructing a parkway along the route of the Chesapeake & Ohio Canal is initiated. The report on the joint survey and study by the Bureau of Public Roads and the National Park Service is completed in 1950. The Washington Post endorses the parkway development in a January 1951 editorial. (Mackintosh, 1991:49-67)
AD 1951	Planned	In response to the parkway plans, Supreme Court Justice William O. Douglas invites the Washington Post editors to join him and other interested groups on a walking tour of the towpath to call public attention to the C & O Canal conservation movement. Starting out on the towpath ten miles east of Cumberland Justice Douglas and his party reach Seneca in seven days. They reached Georgetown the next day. This is the beginning of the effort to make the entire length of C& O Canal a national historic park. (Mackintosh, 1991:68-71)

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AD 1956 - 1960	Restored	Towpath continuity from Georgetown to Cumberland was a primary NPS goal. It is not clear when it was first established, but with few exceptions such as the Widewater area, it was probably achieved no later than the early 1960s. (Mackintosh, 1991:119, 154)
AD 1956	Destroyed	The abandoned Tschiffley Mill is destroyed by fire. It remains today as a ruin located outside the NPS boundary. (Hahn, 1999:57)
AD 1952 - 1959	Built	The NPS builds a "Concession Building" (DSC TIC 412-80706). The structure appears to stand where the feed store was located. It was demolishe sometime after 1962.
AD 1957 - 1966	Restored	During this period, the NPS proceeds with recreational development along the canal as well as the restoration of several locks, lock houses and aqueducts. (Mackintosh, 1991:120) Further research is needed to determine what work was completed in the Seneca area, but the parking lot had been constructed by 1966. 1966 photos show two wooden outhouses located just north of the parking lot on the West property and the concessions building located across from the lock house. (CHOH Building File: Lock 24)
AD 1960 - 1969	Built	The park develops the hiker-biker campground system. The closest to Seneca Lock is the Horsepen Branch Hiker-Biker Overnighter at Mile 26, about three miles upstream. (Mackintosh, 1991:155)
AD 1961	Established	On January 18, President Dwight D. Eisenhower proclaims the canal from Seneca to Cumberland a national monument, thus giving the entire canal official status as part of the national park system. (Mackintosh, 1991:90)
AD 1971	Conserved	Chesapeake & Ohio Canal National Historical Park is established by a law signed by President Nixon on January 8. The C&O Canal National Monument (established in 1961) and the canal property from Seneca to Rock Creek, totaling 5,250 acres was now a national park. (Mackintosh, 1991:101-102)

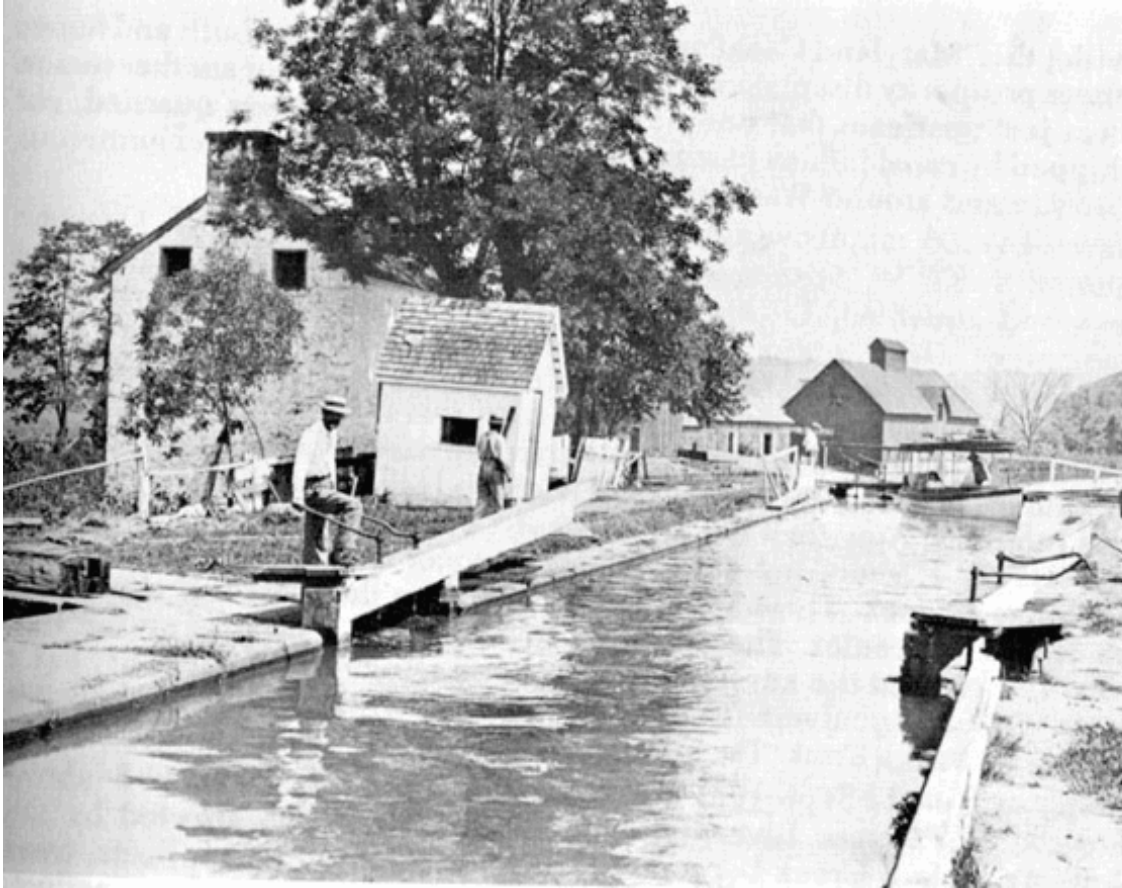
	Damaged	In September, heavy rains cause Seneca Creek to rise about eight feet above the Potomac River. The flood waters carry debris from upstream and trees, boats and even houses were trapped against the arches of the aqueduct. The entire western arch was destroyed, leaving only five upper courses of stone in the upstream flume wall. (Unrau, 1976:33)
AD 1971 - 1972	Altered	The damaged section of the aqueduct is stabilized by the NPS. Steel pipes were positioned between the exposed faces of the abutment and pier to prevent further deterioration. The faces of breaks are covered in 'shotcrete'. (Unrau, 1976:11)
AD 1971		A wooden bridge is built to span the missing arch of the aqueduct in order to maintain towpath continuity. (Wilderman 1980:1)
AD 1972	Eroded	In June, major flooding caused by Hurricane Agnes results in numerous towpath breaks along the canal. Other damage includes eighty-six damaged culverts, damage to all the aqueducts and to locks, lock houses. Debris is scattered along the towpath and prism. The NPS estimates it would take \$34 million dollars make repairs throughout the park. (Shaffer, 1997:89) It is not known what specific damage occurred at Seneca.
AD 1975	Established	Local Girl Scout troops begin to offer 'living history' demonstrations on weekends at the lockhouse at Lock 24. (Mackintosh, 1991:159)
AD 1977	Explored	Underwater investigations occur in 1977 and 1972 to determine the extent of the damage to the submerged sections of the aqueduct. Serious structural problems are discovered and confirmed by another investigation in 1980. Immediate stabilization is recommended.
AD 1979	Excavated	Archaeological investigation of the floor of Lock 24 reveals that only about one foot of fill had accumulated and that while some of the artifacts found date to the 19th century most of what was found is recently discarded bottle glass. It is also discovered that the lock floor is made of wood, was repaired several times and is in fair condition. (Wilderman 1980:13)

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AD 1980	Planted	The Girl Scouts submit a planting plan for the area around the lock house. It includes sunflowers, day lilies, hollyhocks, evergreen ferns and hostas, shadblow and japanese quince. It is unclear how much of the plan was implemented. (CHOH Building Files Mile 22.80 Lockhouse No. 24)
AD 1984 - 1985	Eroded	Floods in 1984 and 1985 again cause heavy damage, with the upper portion of the canal most affected. Due to steps taken after the 1972 flood, masonry structures were less affected, but the towpath was eroded for miles with over thirty breaks in the embankment. Repairs were made quickly however, with most completed by the end of the year. (Shaffer 1997:99-100). Again, It is not known what specific damage occurred at Seneca.
AD 1991	Altered	The wooden pedestrian bridge that allows pedestrians to cross Seneca Creek over the break in the aqueduct is rebuilt.
AD 1992	Altered	The NPS installs a new roof on the lock house at Lock 24.
AD 1996	Eroded	Two floods, the first caused by snowmelt and heavy rains and the second caused by Hurricane Fran, damage the canal. (Shaffer 1997:1) Further research is needed to determine if there was damage in the Seneca area.

Physical History:

1828-1924



Lock 24 circa 1900. Note watch house, Lockhouse and warehouses. (Hahn 1997)



Lock 24 looking west. Note feed store to the left of the boat. (early 20th century, CHOH Photo Files)



*Lock 24 and Seneca Aqueduct looking east. Note feed store and shed on the river side.
(circa early 20th century, CHOH Photo Files)*



Seneca Aqueduct looking northwest. Note the iron fence and wooden fence along the river side. (circa early 20th century, CHOH Photo Files)

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

This section provides an evaluation of the physical integrity of the cultural landscape of Seneca Lock, a component landscape of the Chesapeake & Ohio Canal National Historical Park, by comparing landscape characteristics and features during the period of significance (1828 - 1924) with the current condition. Landscape characteristics are the tangible and intangible aspects of a landscape that allow visitors to understand its cultural value. Collectively, they express the historic character and integrity of a landscape. Landscape characteristics give a property cultural importance and uniqueness. Each characteristic or feature is classified as contributing or non-contributing to the site's overall historic significance.

Landscape characteristics comprise landscape features. Landscape features are classified as contributing if they were present during the property's period of significance. Non-contributing features (those that were not present during the historical period) may be considered "compatible" when they fit within the physical context of the historic period and attempt to match the character of contributing elements in a way that is sensitive to the construction techniques, organizational methods, or design strategies of the historic period. Incompatible features are those that are not harmonious with the quality of the cultural landscape and, through their existence, can lessen the historic character of a property. For those features that are listed as undetermined, further primary research, which is outside the scope of this CLI, is necessary to determine the feature's origination date. Landscape characteristics and features, individually and as a whole, express the integrity and historic character of the landscape and contribute to the property's historic significance.

This section also includes an evaluation of the property's integrity in accordance with National Register criteria. Historic integrity, as defined by the National Register, is the authenticity of a property's identity, evidenced by the survival of physical characteristics that existed during the site's historic period. The National Register recognizes seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Several or all of these aspects must be present for a site to retain historic integrity. To be listed on the National Register a property, must not only be shown to have significance under one of the four criteria, but also retain integrity.

Landscape Characteristics and Features

Contributing landscape characteristics identified for Seneca Lock are natural systems and features, spatial organization, topography, views and vistas, circulation, vegetation, buildings and structures, constructed water features, small scale features and archaeology

The natural systems of the Seneca Lock cultural landscape remain relatively unchanged since the period of significance. The Potomac River, Seneca Creek and their flood cycles, continue to influence the project area.

The spatial organization closely resembles the layout from the period of significance. The Seneca

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Lock cultural landscape is still organized in a linear fashion, oriented to the canal and also to Seneca Creek. While there has been some loss of features, especially structures relating to the quarry and the mill, the spatial organization of the landscape mostly adheres to its historic configuration.

The historic topography of the project area is intact. There have been no significant changes to the predominantly level flood plain on the eastern side of Seneca Lock or to the steep hillsides where the quarries were located on the western side.

The land use of the Seneca Lock cultural landscape has changed since the period of significance. The commercial use that was predominant in the historic period has given way to one that is wholly recreational.

The views and vistas at Seneca Lock have been altered by the increase in vegetation, especially along the river and the canal banks. The views and vistas in the period of significance would have been much more open, looking out over the river, up and down the canal and Seneca Creek. In addition, vegetation obscures the view of the quarry faces and the warehouse ruins and berm-side road.

The property retains the majority of its historic circulation patterns. The canal towpath and prism, Seneca Basin and Rileys Lock Road, all of which date to the period of significance, remain in their historic locations. A berm road, which led to Lock 23 and then on to River Road, remains as a trace and the eastern canal basin remains as a ruin. And while the use of circulation is primarily related to recreation and not commerce, the integrity of circulation at Seneca Lock remains high.

The types of vegetation found during the period of significance within the Seneca cultural landscape are still largely present today, with the exception of the vegetable garden that would have been maintained by the lockkeeper. The most notable change in vegetation is not so much in type but in quantity. The areas alongside the towpath and berm, while tree-lined were not a thickly vegetated during the period of significance. This is especially true on the west side of Seneca Creek, where the quarries were located.

Almost all the constructed water features from the period of significance remain. These include the prism, Lock 24, Seneca Aqueduct and Wastewear, Culvert 35, the Seneca Creek Basin and the smaller basin located east of the lockhouse. All of these were constructed by the Canal Company, with the exception of the Seneca Creek Basin, which was a largely natural feature utilized by the canal and the quarries. A Guard Dam which started at Dam 2 (Mile 22.22) and continued along the berm side of the prism up to Seneca Lock is no longer completely extant. The prism through the Seneca Lock area is no longer watered and therefore these various water features are no longer functional, but they retain their integrity of workmanship and location.

Some buildings and structures from the period of significance are found within the project area. They include the lockhouse, West House, the warehouse ruins and several retaining walls.

The small scale features of the Seneca Lock cultural landscape have very limited integrity. With the

exception of the iron aqueduct fence remnant, none are extant.

While there has been some archaeological research in the Seneca Lock area, further investigation is needed. This is especially true of the area just north of the Seneca Basin and berm, where the quarries, tramway and workers housing were located. The project area is likely to contain significant archaeological resources.

The Seven Aspects of Integrity

1. Location is the place where the cultural landscape was constructed. Seneca Lock occupies its historic location along the Potomac River and Seneca Creek. The community is centered on the Chesapeake & Ohio Canal and the canal prism, towpath, lock, aqueduct and lockhouse all remain in their original historic location. The cultural landscape retains its historical integrity of the location for the entire period of significance (1828 – 1924).
2. Design is the combination of elements that create the form, plan, space, structure and style of a cultural landscape or historic property. The significant structures on the property are extant and their arrangement within the Seneca Lock cultural landscape has not changed since the historic period. This original configuration, along with the area's structural authenticity, affords a high level of integrity. The same is also true of the circulation in the project area.
3. Setting is the physical environment of a cultural landscape or historic property. The setting at Seneca Lock, with its linear nature, and orientation to the canal and Seneca Creek, remains. There have been changes, such as the loss of some historic structures, especially those related to quarrying and the lack of water in the canal. Despite these changes, the property's cultural landscape retains integrity of setting for the period of significance.
4. Materials are the physical elements of a particular period, including construction materials, plants and other landscape features. The integrity of the materials at Seneca Lock is high. The extant buildings and structures are composed of their original materials. The integrity of the plant materials is compromised primarily by the presence of invasive species and the increase in vegetation between the towpath and the river and in the now-dry prism.
5. Workmanship includes the physical evidence of the craft of a particular period. The buildings, structures and constructed water features all show evidence of the workmanship of the period of significance. Above all, the fact that all of the significant canal-era structures are still standing is a testament to the integrity of the workmanship.
6. Feeling is the property's expression of the aesthetic or historic sense of a particular period. Seneca Lock continues to evoke the feeling of a canal community, albeit one in ruin. The presence the canal company structures (Seneca Basin, aqueduct, lock, lockhouse, towpath and prism) contributes to the integrity of feeling as does the location of the historic circulation patterns. The loss of the quarrying and milling activities and related structures, as well as the lack of water in the prism, do negatively

impact the feeling of this landscape, however, leaving it with limited integrity.

7. Association is the direct link between an important historic event or person and a historic property. The C&O Canal was one of the most impressive engineering feats of the nineteenth century. Building a shipping route that would connect the eastern seaboard to the trans-Allegheny west was a venture begun by George Washington in the late eighteenth century. Although the canal met with many difficulties, took 22 years complete and never did reach all the way to the Ohio River Valley, it was a remarkable accomplishment and an important part of commercial and industrial history of the United States.

Conclusions

This CLI finds that the Seneca Lock cultural landscape retains integrity to its period of significance, 1828-1924. While there have been some changes to the landscape and the loss of some historic features, the overall historic integrity of the property is high.

Landscape Characteristic:

Natural Systems and Features

Seneca Lock is found in the Piedmont plateau region, above the major falls of the Potomac River – Little Falls and Great Falls. A secondary falls is located less than two miles east of Seneca Lock – Seneca Falls. This is the site of Dam 2, Lock 23 and an intake lock. The fall line, which begins at Little Falls, marks the boundary between the coastal plain and the Piedmont plateau (Pennyfield Lock CLI 2004). The Seneca Lock landscape includes several different natural environments. These are primarily flood plain, but in some areas upland and swamp environments occur.

The primary natural component and feature of Seneca Lock is the Potomac River. The river determined the placement of the canal overall, determined how successful a venture it was and in the end, was its downfall. The flood cycle of the Potomac River had and continues to have a significant impact on the project area. Since the construction of the canal at Seneca, severe flooding has affected it many times. It took the canal company almost 2 years to repair the damage caused by the 1889 flood and the flood of 1924 sent the canal into receivership and ultimately led to its closure.

Water drains from the inland portions of the site, following the land's natural contours and carving stream beds as it flows. Seneca Creek, a major tributary of the Potomac River, has a fairly extensive inland watershed. Its basic watershed covers 28% of Montgomery County, about 82,500 acres and it has 72 miles of major stream channels, with an average flow of 62 million gallons per day (<http://www.senecatrail.info/history.htm>). It was the first creek along the canal route large enough to require an aqueduct instead of a just a culvert. Another smaller creek, Bull Run Creek, is located near the western boundary of the project area and is carried under the prism and towpath via a stone culvert which is eight feet wide, with a four foot radius. There is another unnamed stream which continues to feed the triangular Seneca Basin, and empties into Seneca Creek. This stream and the adjacent marsh land allowed the canal company to widen the canal prism just west of Seneca Creek for use as a turning basin and

loading area for stone from the adjacent quarries.

Another important natural feature of the Seneca Lock landscape is an area of sandstone cliffs that begin on the west side of Seneca Creek and stretch up river to the western boundary of the project area and slightly beyond. They are part of Triassic era bedrock that runs from Virginia into Maryland and then up the coast to Connecticut (Ballif 1968:1). Quarrying of this stone began prior to the American Revolution (Unrau 2007: 164). In the 1780s, the Seneca area quarries provided stone for the Pawtomack Canal locks, built on the Virginia side of the Potomac River (Seneca Quarry National Register Nomination 1973:8). Stone for C&O Canal structures was also obtained from these quarries as well as for such prominent area buildings as the Smithsonian Castle (Unrau 2001:164).

The sandstone cliffs west of the creek stand in sharp contrast to the flat flood plain which is located east of the creek and extends north almost to River Road and east beyond Lock 24. This area was apparently prone to flooding from Seneca Creek so the canal company constructed an earth and dry-laid stone Guard Dike. It began on the riverside below Lock 24 and the Inlet Lock, crossing over to the berm side near there and then continuing more than one-half mile to Lock 24.

At the outset of canal construction in 1828, the riverbanks and floodplain were probably forested and would have been heavily impacted by canal construction. While there were trees along both sides of the towpath then, the floodplain at Seneca Lock is now more wooded than it was at the end of the historic period (1924), and the riverbank has a full canopy of trees. Also the area west of Seneca Creek would not have been heavily vegetated during the period of quarry operations, roughly 1780-1900. The prism, now no longer watered, is also now overgrown with trees and undergrowth.

Except for the increase in tree cover and other vegetation, there has been little change to the natural systems of the project area since the end of the period of significance.

Character-defining Features:

Feature:	Sandstone Cliffs
Feature Identification Number:	145927
Type of Feature Contribution:	Contributing
Feature:	Seneca Creek
Feature Identification Number:	145929
Type of Feature Contribution:	Contributing
Feature:	Potomac River
Feature Identification Number:	145931
Type of Feature Contribution:	Contributing

Topography

The historic topography of the area remains largely intact, with virtually no change since the period of significance.

The topography of the Seneca Lock project area consists of a mostly level flood plain terrain. The elevation is mostly between 100 and 300 feet above sea level. There are few high points and these barely exceed 300 feet. The high points are located in the quarry area west of the creek.

The construction of the canal had a minimal effect on the topography of the area. What effect the quarrying is hard to gauge, as maps showing topography post-date the quarry period, but there was some effect. Except for those changes caused by the quarry operations, the topography of the area is largely the same as during the period of significance.

Spatial Organization

Historic Condition

Although somewhat influenced by topography and natural systems, the primary organizing feature of the Seneca Lock cultural landscape during the period of significance was the location of the C&O Canal. The spatial organization of the Seneca Lock cultural landscape was generally linear and parallel to the canal. This can be seen in the placement of the lockhouse at Lock 24 and the warehouses that were located along the berm side of the eastern canal basin as well as the feed store located on the river side across from the lock. A road parallel to the canal and east of Seneca Creek was located on the berm side of the prism, running along the top of the Guard Dike down to Lock 23.

Seneca Creek also had an effect on the area's spatial organization. As early as 1732, a mill was located on Seneca Creek at its intersection with River Road (located outside the project area). The products of this mill were generally sent down Seneca Creek and then east towards Georgetown and Washington DC via the river and after it was built, the C&O Canal. In the mid-1800s a small-gauge railway was built along the west side the creek to transport grain to the warehouses then located on the basin east of Lock 24. This route became a road (Tschiffley Mill Road) in the early 20th-century. Also, recreational cottages and other structures were located perpendicular to the canal, but parallel to the creek. Few of these fall within the project area, however, and most date to the latter part of the period of significance or later. The quarry operations also had some influence on the spatial organization but since they too ran parallel to the river their influence was the same as the placement of the canal.

Further research is needed to determine the number and type of structures that were located within the project area before the canal structures were added. The land had been primarily in agricultural use, except for the late 18th-century development of the quarry. Fences, a tavern, a 'plank house', a blacksmith's shop and at least a few other structures are known to have existed prior to the canal company's purchase of the property in the early 1830s. These structures were all found on the west side of Seneca Creek on John P.C. Peter property and are noted in acquisition and conveyance documents (Montgomery County Land Records, Liber

BS 2, Folio 608, Liber BS 3, Folio 25, Liber BS 3, Folio 192, 193).

As with the more general spatial organization of the area, circulation features were also dominated by the east-west linear the placement of the canal, as were land use, vegetation and views and vistas.

Current Condition

The spatial organization has been little altered since the end of the period of significance. The Seneca Lock project area is primarily owned and managed by the National Park Service and the spatial organization remains linear and oriented to the canal. As in the historic period, there is some orientation to Seneca Creek, primarily in the recreational use of the creek for fishing and boating.

The current interpretive focus of NPS management, which centers on the canal and the use of the towpath as a hiking or biking path, reinforces this pattern.

Analysis

Despite some changes in spatial organization, the property retains a high level of integrity for this feature.

Land Use

Historic Condition

Before the development and construction of the canal, land use in the Seneca Lock area was primarily agricultural; The first European settlers of the eighteenth century primarily grew grain and raised some livestock (cattle, sheep and pigs) (Wheelock 2007:19). These early farms also often included pasture, a managed woodlot and a small orchard. This pattern of land use continued into the nineteenth century and agricultural innovations such as the use of soil amendments like imported guano and lime and new kind of agriculture tools and machinery, improved crop yields (Wheelock 2007:19).

However, due to the presence of Seneca Creek and the sandstone quarries in the area, industrial and commercial land uses were also present prior to the construction of the canal. A mill was located on Seneca Creek near River Road by 1732 and continued to operate under various owners until the early 1930s (<http://senecatrail.s457.sureserver.com/seneca.htm>.) It is likely that this was a grist mill, but by 1865 a saw mill was also located here (Martenet and Bond Map 1865). Products were transported from the mill down Seneca Creek, to the Potomac River and then east, via river or road, often as far as Georgetown. Sandstone quarrying began in the late 18th century and continued until around 1900. The stone was also transported to market first via the creek and river and then via the canal (Ballif 1968:2-5).

When the canal company began to build the lock and aqueduct at Seneca, the industrial and commercial aspects of the area's land use increased. Land acquisition began in the 1829, as did the construction of Lock 24, the lockhouse and the aqueduct. The canal was opened for navigation to Seneca Lock by 1833. Beginning in 1829, the project area would have been a busy construction site and once the canal was open, it became an even busier shipping center.

In the early 1870s, two warehouses and a feed store were built at Seneca Lock (Unrau 2007: 694, 832).

Recreational use was also present at Seneca Lock during the period of significance. Packet boats, used for a day long-pleasure cruise, began to operate from Georgetown to Seneca Falls (Lock 23) in 1831 and as the canal pushed westward so did the packet boats. The Seneca area was a popular destination point as were Georgetown and Harpers Ferry. (Unrau 2007:388-341). John Riley, lockkeeper at Seneca from 1892 until the closing of canal in 1924, rented rooms in the lockhouse to visitors and rented out rowboats for 50 cents a day (Kytel 1983:229).

By the early 20th century, recreational cabins began to be built in the Seneca Lock area (Seneca Camp Club Article: MCHS 1959). Fishing, canoeing and picnicking were common pastimes in the area and more houses and summer homes were built near the river and north along Seneca Creek, especially on the west side (USGS Map 1908).

During the period of significance, Seneca Lock was a commercial hub for the canal. Stone from the quarries and flour and wheat from the mill were shipped down Seneca Creek and via the canal to Georgetown, and Washington D.C. Goods began to come from further west through Seneca as the canal construction continued pushed west. The most productive period of the canal era was between 1870 and 1889. After the enormously destructive flood of 1889, the canal company could not recover financially and the B&O Railroad took over as the primary stockholder. The canal was finally repaired and reopened for business in 1891, but it never regained the productivity of the previous two decades. The canal limped along, barely profitable for the next 23 years, until the massive flood of 1924. The B&O Railroad then decided it would no longer repair and maintain the canal above the Georgetown level, effectively closing it down for good.

Most of the commercial and industrial use of the project area ended with the closing of the canal west of Dam 1 in 1924 (Unrau 2007:317-318). The canal at Seneca Lock was abandoned after the 1924 flood. Industrial use in the area began to slow with the closing of the sandstone quarry in the early 1900s (Seneca Quarry National Register Nomination 1973:5). The mill, owned by the Tschiffley family since 1900, remained in operation until the early 1930s, but after the closing of the canal, mill products were most likely shipped via road or to towns above Great Falls by river. The warehouses built on the berm side of the eastern basin were in ruins by late 1939, when the NPS surveyed the Seneca area (DSC TIC 412_80704). The feed store, located across from Lock 24 was demolished sometime after the 1920s. A 1939 NPS map (DSC TIC 412_80704) notes a summer house in the same location. This structure became a concession building sometime after the NPS took over the property (DSC TIC 412-27002). It had been demolished by 1966 (DSC TIC 412-80729).

Recreational use at Seneca Lock continued after the closing of the canal, with the exception of the packet boat excursions.

Current Condition

The land use of the project area is now wholly recreational. While there was some recreational use during the period of significance, it became the only land use once the canal at Seneca Lock ceased to operate 1924. Along Seneca Creek and largely outside the current park boundary, a community of cabins and summer cottages developed. Ray Riley, son of the last lockkeeper at Seneca said that area had turned into a resort after 1924. The area between River Road and the Potomac River, on either side of Seneca Creek became known as Seneca Village. By 1947 there were at least 50 structures located there and by the early 1970s the number was at least 65 (The Sentinal, August 30, 1979). Most were found along the west side of the creek (1971 NPS Tract Maps, Sections 7 and 60). Many of these properties were severely impacted in the 1971 Seneca Creek flood that also damaged the aqueduct. The majority of the area affected by the flood was purchased by either the state of Maryland or by the NPS. By the mid-1980s all of the recreational structures located on property owned by the NPS had been demolished (CHOH Building Files). Those located on state land were also demolished and by 1979, only 20 house remained (The Sentinal, August 30, 1979). Today, the area is no longer referred to as Seneca Village and is part of the city of Darnestown. Only two structures remain in use on the west side of Seneca Creek and the area no longer has the feel of summer resort.

However, the Seneca Lock area remains a popular Montgomery County recreational site. It is used by hikers and bikers of the C&O Canal, fishers and boaters on Seneca Creek and the Potomac River and picnickers who use the tables and grills set up by the park along the river on either side of the creek. It is also a popular birding location, especially the marshy area near Seneca Basin. In 1975, local Girl Scout troops began to offer 'living history' demonstrations in the lockhouse (Mackintosh 1991:159). The NPS currently leases the West House to Calleva, an outdoor educational program.

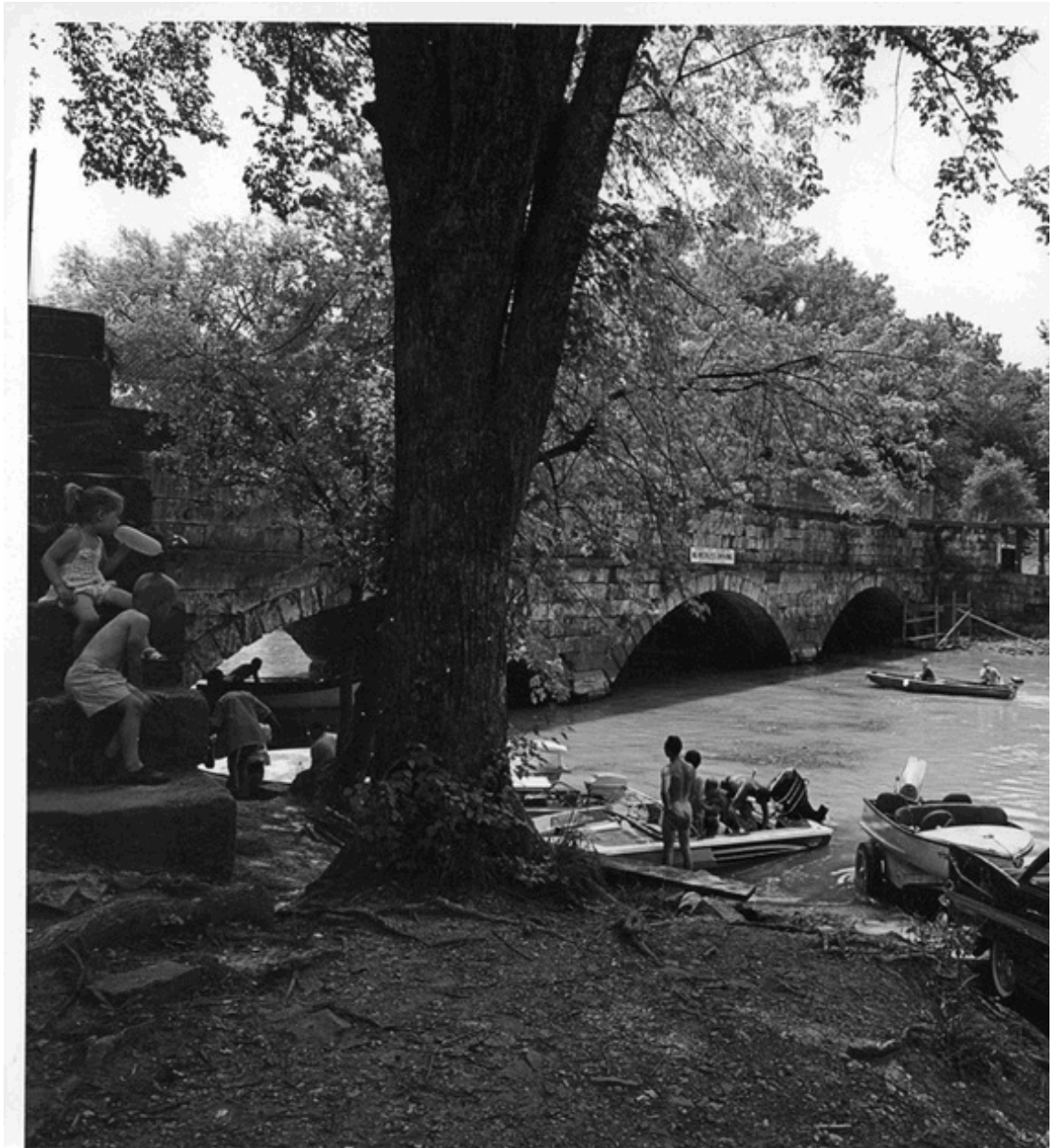
Analysis

While the remaining canal structures (lockhouse, lock, aqueduct, basin, towpath and prism) suggest the commercial aspect of land use within the project area both commercial and industrial land use in the Seneca Lock area is gone. Only recreational use, which was also present during the period of significance, continues. These changes mean that the Seneca Lock cultural landscape retains minimal integrity of land use.

Character-defining Features:

Feature:	Recreational Land Use
Feature Identification Number:	145933
Type of Feature Contribution:	Contributing

Landscape Characteristic Graphics:



Recreational Use at Seneca Lock, circa 1950. (CHOH Photo Files)

Circulation

There are several important historic roads within the project area. These include the canal towpath, Rileys Lock Road and Tschiffley Mill Road. All of these date to the period of significance. Historic maps, which date to the period before the first mapping done by the Canal Company in 1827, show no evidence of roads through the project area. However this may be due to the lack of detail in these late 18th and early 19th-century documents. River

Road, which is located north of and outside the project area was, and remains, the main east-west road in the vicinity of Seneca Lock. Starting as the road from Georgetown to points west, it was one of the first public roads in the Montgomery County area and in 1782, the road was extended from Watts Branch to Seneca Bridge (Pennyfield Lock CLI 2004:7). A road along the river probably existed prior to the late 18th century, but further research would be necessary to confirm this. Rileys Lock Road and Tschiffley Mill Road both begin at River Road and head south, where they end near the mouth of Seneca Creek.

Other historic circulation features include the prism, a berm road that ran along the Guard Dike east to Lock 23 and a narrow gauge railroad on the west side of the creek, that ran from the mill on River Road down to the canal (This route later became Tschiffley Mill Road). A second narrow-gauge railroad that ran parallel to the river also west of the creek was used to transport stone to the stone-cutting building or mill from quarry faces located just to the west (Maryland Historic Trust Inventory 17-53, Seneca Stone-Cutting Mill 1973:3). The canal prism is also considered a circulation feature, but is described more completely in the Constructed Water Feature section

Rileys Lock Road, Tschiffley Mill Road, the canal towpath and prism all remain in their original locations and with the exception of the now dry prism, maintain their historic function. The two narrow-gauge railroads are gone, but the berm road remains as a trace though the vegetation that has grown up along the berm side of the canal prism. In spite of the loss of a few historic features, circulation at Seneca Lock retains a high degree of integrity.

Historic Condition

Towpath, Mile 22-23 and Mile 23-24 (LCS 46584 and 46586)

The portion of the towpath that runs through the project area consists of part of Mile 22-23 and part of Mile 23-24. They were probably constructed at the same time as the other canal structures (1828-1831). The towpath was an eight-foot wide constructed berm or one carved from the hillside, located on the river side of the canal and sloped to drain toward the river. Constructed of stone rubble and about two feet above the prism water level, it was used as a path for the mules that pulled the canal boat along the prism.

Berm Road

This road ran along the top of Guard Dike which was built along the berm side of the canal prism in order to protect the canal from the flooding of Seneca Creek. The topography to the north of the canal prism between Locks 23 and 24 is so flat, that a berm higher than water line level of the prism was needed. On the 1865 Donn map, it appears as a continuation of what became known as Rileys Lock Road. This road began at River Road and went south along the east side of Seneca Creek. On the historic map, it then turns east, continuing along the berm side of the canal prism until it met up with the southern end of Violette's Lock Road near Lock 23 and Dam 2.

This was probably not a purpose-built road, but one that developed as a pathway from Lock 24 east to Lock 23. It would have been much quicker to go along the prism, rather than go all the way up to River Road and then down again on Violette's Lock Road. While the towpath was also certainly used to travel between the locks, it was company property and there may have been access issues. The Berm Road first appears on the 1865 Donn map, but it probably came into use earlier in the 1830s when the canal was first built.

Rileys Lock Road

This road began at River Road, heading south to the mouth of Seneca Creek. It does not appear on the 1827 Canal Survey map (Geddes and Roberts Survey Map 1827)), but this map was narrowly focused on property the canal company needed to purchase so this is not proof that the road did not exist at that time. The earliest map examined for this CLI, that shows Rileys Lock Road dates to 1865 (Donn Map 1865). On that map it continues east along the berm side of the canal prism (See Berm Road above). Further research is needed to determine more precisely when this road came into use. It became known as Rileys Lock Road, named after the last lockkeeper at Seneca, John C. Riley, who operated Lock 24 between 1892 and 1924 (Kytte 1983:25).

Mill Narrow-Gauge Railway

A narrow-gauge railway was built by Upton Darby circa 1865 (Donn Map 1865; Seneca Ford Mill History). This railway ran along the west side of Seneca Creek, beginning at the mill near River Road, then south towards the river. It skirted to the west of the swampy area between Seneca Basin and the creek and terminated at the northernmost point of the basin. Further research is necessary to determine how long it was in operation.

Quarry Narrow-Gauge Railway

This rail or tramway ran parallel to the river on the west side of Seneca Creek. It does not appear on any of the historic maps examined for this project. Stone from the quarries along the river, probably between Bull Run Creek and Seneca Creek were brought to the stone-cutting building or mill via the railway in mule-drawn gondolas (Maryland Historic Trust Inventory 17-53, Seneca Stone-Cutting Mill 1973:3). If it was related to the stone-cutting building it was probably built between 1830 and 1880.

Tschiffley Mill Road

This road began at River Road near the mill, and ran south along the west side of Seneca Creek. It appears to follow the path of the circa 1865 narrow-gauge railway. The earliest map it appears on, of those examined for this report, is a 1908 USGS map.

Current Condition

Towpath, Mile 22-23 and Mile 23-24 (LCS 46584 and 46586)

Today the towpath is an earthen path and remains in its historic location. The towpath material

is harder-packed on the sides than in the center; as a result, a grassy median strip exists today. It is generally coarse dirt with some loose gravel. Its current use is as a pedestrian or bike path.

Berm Road

The Berm Road remains extant as an overgrown trace that begins just east of the parking lot behind the lockhouse. It follows the berm side of the now defunct canal prism, passing the warehouse ruins and leading to Lock 23. It still appeared on a 1908 USGS map as a secondary unpaved road, but probably went out of use sometime after 1924 when the canal and the warehouses ceased operations. Further research is needed to determine a more precise date.

Rileys Lock Road

Rileys Lock Road is now paved with asphalt and ends just beyond the NPS parking lot north of the lockhouse. The remaining section which ends at the wooden steps leading up to the towpath is dirt and treated by the NPS as a trail. It remains in its historic location.

Tschiffley Mill Road

Tschiffley Mill Road is now paved with asphalt. Where it meets NPS property, there is a metal locked gate and beyond there it is a dirt road. It continues to its termination point near the northernmost point of the Seneca Basin and remains in its historic location.

Mill Narrow-Gauge Railway

This railway is no longer extant. Tschiffley Mill Road now follows its path.

Quarry Narrow-Gauge Railway

This railway is no longer extant, but there is a hard-to-follow path or trace that runs west from the terminus of Tschiffley Mill Road towards Bull Run Creek. This may be the line of the railway, but further research is needed to determine its location and whether it was located on NPS property.

Parking Lot

The NPS built a paved parking lot in the area behind the lockhouse and between it and the West House property. Further research is needed to determine more precisely when it was built but it was sometime after 1939 and before 1962 (DSC TIC 412-80704, CHOH Photos from Building Files, Lockhouse 24). It was probably built in the late 1950s or early 1960s which is when the lockhouse was rehabilitated. Within the parking lot, there is a small road that leads to the canoe storage enclosure located east of the West House.

Boat Launch

A small boat launch can be seen in photos taken at Seneca Lock in the 1950s (CHOH Historic Photos, File 472). Located just below the eastern wingwall of the aqueduct, across the street from the parking lot, it remained until at least the mid 1960s but is no longer extant (CHOH Building Files, Mile 22.82 Lockhouse 24). Further research is necessary to determine when it

was built and when it was finally removed.

Analysis

The portions of the historic roads and the canal towpath within the project area remain in their original locations. The berm road also remains in its original location although it is now only a trace. The only major circulation features that are non-extant are the two narrow-gauge railways and it is not clear if the quarry railway was on park owned property. Overall, the circulation of the Seneca Lock cultural landscape has high integrity. (Note: Only that portion of Rileys Lock Road and Tschiffley Mill Road located on NPS property is considered contributing)

Character-defining Features:

Feature: Berm Road Trace

Feature Identification Number: 145935

Type of Feature Contribution: Contributing

Feature: Canal Towpath Mile 22-23

Feature Identification Number: 145939

Type of Feature Contribution: Contributing

IDLCS Number: 46583

LCS Structure Name: Mile 022-023, Canal Prism

LCS Structure Number: 022.01

Feature: Canal Towpath Mile 23-24

Feature Identification Number: 145937

Type of Feature Contribution: Contributing

IDLCS Number: 46586

LCS Structure Name: Mile 023-024, Towpath

LCS Structure Number: 023.00

Feature: Rileys Lock Road

Feature Identification Number: 145941

Type of Feature Contribution: Contributing

Feature: Tschiffley Road

Feature Identification Number: 145949

Type of Feature Contribution: Contributing

Seneca Lock
Chesapeake and Ohio Canal National Historical Park

Feature: Parking Lot

Feature Identification Number: 145996

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Towpath, looking west, Mile 23-24. (NPS/LCS,2005)



Looking north along Rileys Lock Road. Seneca Creek is to the right. (CLP, 2010)

Vegetation

During the period of significance two basic types of vegetation existed. Native vegetation and planted vegetation. This last category includes purposely planted vegetation such as trees, shrubs, vines, flower and vegetables.

Current Condition

Native Vegetation

The floodplain vegetation along the Piedmont and Appalachian portions of the Potomac River is generally that of a second or third growth eastern bottomland forest. The dominant tree species are sycamore (*Platanus occidentalis*), elms (*Ulmus* spp.), silver maple (*Acer saccharinum*), box elder (*A. negundo*), and green ash (*Fraxinus pennsylvanica*). Less common are birch (*Betula* spp.), oaks (*Quercus* spp.), cottonwood (*Populus deltoides*), yellow poplar or tulip tree (*Liriodendron tulipifera*), locust (*Robinia pseudoacacia*), hickory (*Carya* spp.), walnut (*Juglans nigra*), beech [*Fagus grandifolia*], cedar [*Juniperus virginiana*] and pine (*Pinus* spp.), although these may dominate in certain areas due to climatic or soil conditions. Common understory trees and shrubs include dogwood (*Cornus florida*), sumac (*Rhus* spp.), hornbeam (*Carpinus caroliniana*), mountain laurel (*Kalmia latifolia*), spicebush (*Lindera benzoin*), and redbud (*Cercis canadensis*). Introduced species include tree of heaven (*Ailanthus altissima*), princess tree (*Paulownia tomentosa*), and white mulberry (*Morus alba*), which have become naturalized. Although all of these species are not necessarily present in the Seneca Lock area, they are typical of the floodplain environment (Four Locks Cultural Landscape Inventory: 2008)

Historic Condition

During the period of significance, the Seneca Lock area was much less wooded than it is now. While there were trees along the towpath on both the river and the berm sides, they were much less dense than today (CHOH Historic Photos: Seneca Lock). Also, the quarry area west of Seneca would have been cleared of trees and most other vegetation so the rock faces could be accessed.

Current Condition

The main difference between the native vegetation between now and the period of significance was the quantity and density of trees and understory vegetation. There are also probably more invasive species present today.

Planted Vegetation

Historic Condition

The board of the C&O Canal approved a resolution in 1830 requiring that at least one acre attached to each lock would be set aside for use as a garden. The lock tenders would then be able to raise vegetables and chickens, hogs and cows (Unrau 1977:786).

Historic photos of the lockhouse show shade trees and low shrubs, but it is likely that other decorative vegetation was also planted. Historic period trees may have included hackberry,

black locust, black walnut, and oak.

Current Condition

The vegetable garden is now gone from the Seneca Lock area. The only decorative plantings that are extant are day-lilies and hostas planted near the door on the south elevation. These may be the remnants of plantings made by the Girl Scouts in the early 1980 (Memo from CHOH Buildings files: Seneca Lockhouse, April 21, 1980). There are two shade trees in front of the south elevation of the lockhouse, between the house and the lock. While these particular trees do not date to the period of significance and are therefore not contributing, photos from the 1920s show shade trees in this location so these two trees are compatible to the vegetation of the landscape.

Analysis

With the loss of the site's former functions, its vegetative outlines have softened and lost distinction. The floodplain along the river side of the canal as well as the area along the berm side is also more forested than historically. The lack of water in the prism also leads to increased vegetation as annual vegetation and trees have grown up there. Plantings that would have been in place when the lockhouse was occupied such as the vegetable garden and decorative plantings are no longer extant. Thus there is a fair degree of change. A mitigating factor in evaluating vegetative integrity is the fact that native species predominate in the area, protecting this site from the added problem of a large number of invasive trees and shrubs. Therefore, in spite of the loss of some historic features, the vegetation of the Seneca Lock landscape retains moderate integrity.

Character-defining Features:

Feature: Treeline along river&berm sides of canal

Feature Identification Number: 145951

Type of Feature Contribution: Contributing

Feature: Shade Trees in front of the Lockhouse

Feature Identification Number: 146005

Type of Feature Contribution: Non Contributing

Feature: Decorative Plantings near the Lockhouse

Feature Identification Number: 146149

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Canal in the vicinity of Seneca Lock, looking east. (Circa early 20th century, CHOH Photo Files)

Buildings and Structures

The Seneca Lock cultural landscape contains historic buildings and structures, most of them associated with the C&O Canal or the community that arose as a result of the building of the canal. In addition to the buildings that remain, there are also some that are no longer extant in the landscape, not even as ruins. They include a lockkeeper wait house, a feed store, and a house used by the Section Manager or Engineer.

In spite of the loss of some of the Seneca Lock buildings, the remaining structures are in their original locations, maintain the integrity of their original construction and contribute to the overall integrity of the Seneca Lock cultural landscape.

Unless otherwise indicated, the information in this historic condition section is from the 1979 National Register Nomination, the List of Classified Structures and historic photographs.

Historic Condition
Lockhouse - Lock 24

Lockhouse-Lock 24 (Riley's Lock) is located at the Seneca Aqueduct. The structure was built by Holdsworth & Isherwood, contractors, who also constructed the aqueduct and lock. The contractors were awarded the project in December 1828, work began in November of 1829 and the building was completed in April 1830. It appears that this lockhouse was built according to the circa 1828 specification of a lockkeeper's house Unrau 1978:33)

It is a one and one half-story building constructed of Seneca sandstone. The south or front elevation has a central door, with a six-over-six sash window on either side. There are two smaller two-over-two sash windows located on of each gable ends in the attic level. These windows enabled the lockkeeper to see approaching canal boats. There are two chimneys, one on each gable end. The north or rear elevation has two side-by-side doors on the ground or basement level, with a six-over-six sash window to each side. It also has two windows of the same style above these, which are on the first floor level. The building is built into a hillside so the basement or ground floor is entered from the north elevation, while on the south elevation; the door leads to the first floor. The lockhouse is located on the berm side of the canal at the lower end of Lock 24.

The interior of the lockhouse contained two rooms on each level. Two middle staircases provided access between floors. The two rooms on the first floor were used as a kitchen and dining room and the attic rooms were used for sleeping (Kytile 1983:228)

In 1873, the roof and upper floor of the lockhouse burned. It is assumed the repairs were made shortly after (Unrau 1978:25).

Current Condition

The lockhouse was abandoned after the closure of the canal in 1924. It stood empty and derelict when the NPS acquired the property in 1938. A Historic Structures Report was prepared for the Lockhouse in 1965 and the structure was rehabilitated probably within a few years of the document. The upper windows were replaced with louvers at this time. Sometime after this, the small windows were restored to the two-over-two sash original design. The building is currently listed on the LCS as being in good condition.

Lockkeeper's Wait House

Historic Condition

These small buildings were generally located just outside the lockhouse and sheltered the lockkeeper as he or she waited and watched for boats. The Lockkeepers Wait House is no longer extant at Seneca Lock. It appears in a circa 1920 photograph (CHOH Historic Photos, File 455). Located in front of the lockhouse, on the berm side at the upper end of the lock, it is a small white building with a gable roof. Only the east elevation is shown and there is a window on that side. It has a shingle roof and looks to be made of vertical board-and-batten. It was probably similar in size to the one remaining Lockkeepers Wait House found at Lock 50 (Four Locks), which is eight-by-twelve feet and one story.

Current Condition

The wait house is no longer extant and it is not known when it was removed.

Connell House (Section House or Engineer's House)

Historic Condition

By 1830, the office for the second resident engineer was located near Seneca Creek. This position, held by Thomas F. Purcell at that time, was responsible for the Tidelock in Georgetown to Section 40 (Seneca). A building, that appears on a map that accompanies a deed of acquisition for land purchased from John P. C. Peter (Montgomery County Land Records, Liber BS 3, Folio 192, 193) is probably this structure. It is located on the berm side of the Seneca Basin. Later information and maps indicate the house used by the canal section manager or superintendent, responsible for the line from Lock 23 to Brunswick was also located in this same place, but whether it was the same structure over time is unknown. Samuel Sydney (Sid) Connell was in this position from about 1900 until about 1930. He lived in the house on the basin throughout his tenure with the canal company and continued to live there until his death in 1955. The building was then demolished. ((Sween 1993).

An undated photo of a building labeled "Home Occupied by S.S. Connell" (CHOH Historic Photos, File 442) shows a two-story, gable-roofed structure with vertical board-and-batten siding. It has a central chimney and six-over-six sash windows. The front elevation also appears to have two doors, one located at either end. It has a one-story rear shed attachment which is also gable-roofed with two windows on the visible side elevation. The shed also has a small chimney. A small detached flat-roofed out-building is located to rear of the house.

Current Condition

The structure is no longer extant. It was demolished circa 1955.

Feed Store

In 1873 the canal company granted permission to E. M. Lowe to lease land at Seneca Lock for a feed store. He moved a building across the river from the Virginia side and reconstructed it on the towpath side of the lock, directly across from the wait house (Unrau 2007:832). These stores provided provisions to the canal boatmen and their families as they traveled along the canal.

An undated photo (CHOH Historic Photos, File 456) shows a building in this location. The photo likely dates to the early 20th century, between 1900 and 1924. The entire structure is not in view, but it looks to be gable-roofed and wood-framed. The gable ends are the east and west elevation and it appears to have two stories. The same photo shows a smaller shed-roofed wooden building next to the larger structure, but nothing else is known about the smaller structure.

Current Condition

The feed store and smaller building are no longer extant. It is not known precisely when the store was removed.

A building in that location is noted as a 'summer house' on a 1939 map of the site (DSC TIC 412-80704). On a 1939 Historic American Buildings and Structures (HABS) measured drawing of the aqueduct; a building in the same location is noted as 'concession' (DSC TIC 412-27002). There is a NPS plan for a "Concession Building" at Lock 24 dated May 14, 1952 (DSC TIC 412-80706). The building appears in several photos. One dates to (CHOH Historic Photos, File 478), another likely dates to the late 1950s or early 1960s (CHOH Historic Photos, File 476) and it can also be seen in photos taken at Seneca Lock in 1962 (CHOH Building Files). The building that stood there in 1939 was likely converted from a 'summer house' to a 'concession' by the NPS. It was a hip-roofed structure, with lower walls of wood and upper walls of screening and stood on a pier foundation. This building is no longer extant and further research is needed to determine when it was removed.

Warehouses

Historic Condition

In the 1870s at least two warehouses were built at Seneca Lock. The canal company granted a lease to John Darby and Son, in 1871, to build a warehouse on the berm-side of the canal at Seneca and the following year granted a similar lease to James H. Gassaway, American Dawson, Samuel Dyson and others. Darby owned the historic mill located up-stream on Seneca Creek and both warehouses were to be used for shipping grain (Unrau 2007:694). Two warehouses or granaries at Seneca Lock were listed in an 1890 canal document. One was leased to William A. West, who owned the property just north of the east basin. A photo dated circa 1910-1920 (CHOH Historic Photos, File 465, 452) shows two or possibly three buildings on the berm side of eastern basin, below the lockhouse. Two buildings are also shown in this spot on a USGS map from 1908.

The buildings have gable roofs and the most easterly structure also had a cupola and a hanging gable, which is used to load and unload hay from the upper floor of the building. Large loading doors can be seen facing directly onto the canal prism and a boat has pulled up to one of the structures for loading.

These structures probably went out of use shortly after the canal ceased to operate as far west as Lock 24 in 1924. A 1939 map of the project area represents two structures as 'Old Warehouse Ruins and 'Warehouse Foundations' (DSC TIC 412-80704).

Current Condition

Today the remnants of these ruined warehouses can still be found along the berm wall of the prism, just east of the remains of the east basin. The ruins are difficult to interpret and should be investigated further to determine their extent and provenience.

West House

Historic Condition

The West House is a two-story wood framed house, with German siding. The building has a stone foundation and a standing seam metal roof. The windows of the house are six-over-six with wooden sashes. There is a painted brick chimney located on the south elevation.

Absent from the 1878 Hopkins Map of Montgomery County, the West House was probably built after the West family acquired the property in 1883 (purchased by Charles & Catherine Homiller of Washington City). The property was conveyed by deed from John E. West to W. Armstead West. W. Armstead West purchased adjoining property from Jetson Fields in 1883. W. Armstead West died in 1889 and bequeathed this land to his son, Harry C. West. Harry C. West married Mabel Lavinia Cross whose family had owned neighboring property since at least 1865. Harry C. and Mabel L. West conveyed the land by deed in 1946 to George and Lorraine Sager. The Sagers held this property for about ten years. The property changed hands once again, and then the NPS purchased the property in 1958 (List of Classified Structures information).

Current Condition

The house is listed in good condition on the LCS. A wood-post picnic shelter is attached to the house's east elevation, which connects to the front porch on the front (south elevation). The porch's roof also extends over the north elevation door. The house currently is leased by Calleva, an outdoor educational program. They maintain the building.

Loading and Retaining Walls at Seneca Quarries (Mile 23.10)

Historic and Current Condition

The walls are probably associated with the various quarry operations located in the Seneca vicinity. Further research is needed to determine a precise date of construction, but they certainly date to the period of significance.

Located on the berm side, they run for about 1/10th of a mile, with a height varying from 3' to 5' tall. They are constructed of dry-laid red sandstone. Quarrying marks are visible on many of the stones.

Sandstone structure located along Bull Run Creek at Culvert 35

Historic and Current Condition

Along the west side of Bull Run Creek just north of the inlet side of Culvert 35 are the ruins of a sandstone structure. It is not clear what its function was. The creek bank has been reinforced with a sandstone retaining wall, but it appears that there was more to this structure than just that. In Thomas Hahn's Towpath Guide, he calls these the ruins of an old mill (Hahn 1999:58), but they may also be related to the quarries that are adjacent to this area. Just upstream from the ruins, a large sandstone block with indentations can be found. This may be a base that once held a jib crane and points to the structure's use as more related to quarrying

than milling (Robert Kapsch, Personal communication, 3/9/2010).

Loading and Retaining Wall at Mile 23.65

Historic Condition and Current Condition

The wall may have been a wharf for the loading and unloading of canal boats, functioned as a retaining wall for the prism, or it may be related to the extensive quarry operations in the vicinity. The style of construction is similar to other canal-related structures, particularly the loading and retaining wall located at Mile 23.10. Further research is needed to determine a precise date of construction, but they certainly date to the period of significance.

Located on the berm side, they are constructed of dry-laid red sandstone. This second set of walls, which are located just west of Culvert 35 need to be measured for length and height.

Comfort Stations

Three portable comfort stations are located at the north edge of the parking lot.

In addition to the buildings and structures described above, several others are noted in deeds and land acquisition documents. They include a 'plank house', blacksmith's shop, tavern and some sort of dock or other structure along the river just west of the creek. All of these structures were located on property belonging to John P. C. Peter (Montgomery Count Land Records, Liber BS 3, Folio 192, 193). None remain extant.

Three other buildings were an important part of the larger cultural landscape of the Seneca Lock area. These were the series of mills that were located where the River Road crosses Seneca Creek, the Stone-Cutting Building or mill associated with the sandstone quarries and the Quarry Master's House, located on the bluff above the quarries. None of these structures are located on NPS property and so are not listed as features in this CLI, however, they were key features of the larger Seneca Lock landscape during the period of significance.

Character-defining Features:

Feature: Portable Comfort Stations

Feature Identification Number: 146197

Type of Feature Contribution: Non Contributing

Feature: Lockhouse-Lock 24

Feature Identification Number: 145953

Type of Feature Contribution: Contributing

IDLCS Number: 12867

LCS Structure Name: Lockhouse - Lock 24

LCS Structure Number: 022.80A

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Feature: West House

Feature Identification Number: 145955

Type of Feature Contribution: Contributing

IDLCS Number: 47581

LCS Structure Name: West House

LCS Structure Number: 022.80B

Feature: Retaining Walls at Seneca Quarry

Feature Identification Number: 145957

Type of Feature Contribution: Contributing

IDLCS Number: 47576

LCS Structure Name: Loading and Retaining Walls at Seneca Quarries

LCS Structure Number: 023.10

Feature: Retaining Walls at Mile 23.65

Feature Identification Number: 145959

Type of Feature Contribution: Contributing

IDLCS Number: 47577

LCS Structure Name: Loading and Retaining Wall at Mile 23.65

LCS Structure Number: 023.65

Feature: Warehouse Ruins

Feature Identification Number: 146251

Type of Feature Contribution: Contributing

Feature: Sandstone Ruins at Bull Run Creek

Feature Identification Number: 146257

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



Lockhouse at Lock 25, south elevation. (CLP, 2010)



West House, south elevation. (CLP, 2010)



Warehouse Ruins (CLP,2010)



Loading and Retaining Walls at Mile 23.65. (NPS/LCS 2006)

Constructed Water Features

The Seneca Lock cultural landscape contains numerous constructed water features, all associated with the C&O Canal. These features include part of a guard dike, the canal prism, a lock and aqueduct, a wasteweir, a culvert, and two boat basins.

Currently, the canal through the Seneca Lock cultural landscape is not watered. The lock, aqueduct, and wasteweir no longer function as they did historically. One of the boat basins is kept filled by an intermittent stream, but the other is dry and also partially demolished. The culvert remains in operation. The lock no longer has wooden gates or other wood components. Generally the stonework of the canal structures at Seneca Lock is intact and all retain integrity of material. All the constructed water features remain in their original locations.

The constructed water features of the project area retain their integrity and contribute greatly to the significance of the landscape.

A comparison of historic and current conditions for each individual constructed water feature follows. The information found in the Historic Condition sections is from the 1979 National Register Nomination, the 1979 Historic Structures Report: Seneca Creek Aqueduct and Lock 24 and the List of Classified Structures (LCS).

Guard Dike, Dam 2

Historic Condition

The Guard Dike, only part of which is located within the Seneca Lock project area, is constructed of earth and dry laid stone. It begins at the high point of land on the riverside of the towpath below Lock 23 and the Inlet Lock at Dam 2, continues upstream, crossing both locks

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to the berm side of the canal. It extends the entire .68 mile to Lock 24 at Seneca Creek. About half way to Seneca Lock, the dike increases in elevation from five to seven feet above the towpath on the berm side. This elevation continues up to and around the berm side of the canal basin which extends from Lock No. 24 downstream for about four-hundred feet (Hahn 1979:52).

Current Condition

The portion of the Guard Dike which remains extant within the project area consists largely of the high berm-side wall of the prism. The western-most end of the dike was destroyed by the building of the parking lot at Seneca Lock, although this end of the dike had previously washed out, probably in the 1924 or 1936 flood.

Canal Prism Mile 22-23 and 23-24 (LCS 46583 and 46585)

Historic Condition

The portion of the prism in the Seneca Lock area was probably constructed from 1828-1831 at the same time that the other canal structures were built. The prism in the project area was built to carry water to a depth of 6 feet, and was 60 feet wide at the top level and about 8 feet deep. The sides were on a slope of 1 inch vertical to 1.5 inch horizontal. The sloping sides were to rise 2 feet above water level, and the entire prism bed was waterproofed with a clay liner. Much of the canal prism had earthen sides and bottom, but dry wall stone sides were used on curves, areas subject to floods, places where unusual strain was likely to be exerted on the canal walls, and in a few restricted locations where the canal was blasted out of natural rocks (C&O Canal National Register Nomination, 1979:91). There are approximately 2 miles of prism located in the project area.

Current Condition

The prism is no longer watered. As a result it has silted in somewhat and trees and undergrowth vegetation are now present. It does however, remain clearly defined and visible in the landscape.

East Basin

Historic Condition

This basin is not listed in the National Register or on the LCS. It is a widening of the prism, just to the east of the lock and lockhouse (CHOH photo, Folder 465, 452). It extended about four hundred feet east of Lock 24. Two 19th-century warehouses stood on the berm-side bank of this basin. It is not known why a basin was constructed here as there was a larger basin (Seneca Basin) located just on the other side of Seneca Creek where the quarries were. It may have been somehow related to the Guard Dike (see above).

Current Condition

The basin is now dry, but unlike the prism, it has been kept clear of vegetation other than mowed grass. Stone retaining walls can be seen on both the towpath and berm side. They extend about one hundred-sixteen feet on the straight on the towpath side and about eighty-one feet flaring away from the prism on the berm side. Repairs are needed to these walls as the

mortar has deteriorated and especially on the towpath side, the wall is beginning to fail. A portion of the basin was destroyed by the construction of the parking lot (DSC TIC 412-26022, Environmental Assessment, Pkg. No. 049 1980). The basin is mainly dry, but it occasionally contains standing water, especially at its eastern end. A social trail cuts across the eastern end, where visitors make a short cut from the towpath to the parking lot. This trail is causing erosion of an area of the prism walls.

Lock 24

Historic Condition

Built between 1829 and 1832, Lock 24 has a lift of about eight and one-half feet and measures ninety feet, four inches between the gate pockets. The upper lock pocket is nine feet, eight inches wide and the lower lock pocket is 10 feet, five inches wide. The lock is faced with Seneca red sandstone, with a backing of red sandstone quarry rubble and lime mortar. The coping stones are cramped with iron bars, indicating movement in the lock walls. It is a unique structure because it was built as a combination lock/aqueduct, the only one on the C&O Canal (see Seneca Aqueduct description below). Another interesting feature of this lock is the many different masons' marks are found on its stones. There are also clear tow rope markings on the south-east corner coping stone.

Current Condition

The lock, which is not watered, is currently a stable structure. The wooden lock gates are gone. Archaeological testing of the lock floor indicates that it was made of wood, as was typical of C&O Canal locks, and was repaired with concrete and asphalt in the early 1900s (Ziek 1979). It is listed on the LCS as a ruin. Sometime after the NPS acquired the canal, a metal link fence was installed along the top of the lock and aqueduct. The metal fence posts have been inserted into the coping stones of both structures and this has a negative impact on the structure.

Seneca Creek Aqueduct

Historic Condition

The Seneca Aqueduct was built between 1831 and 1832 and constructed of a fill of Seneca sandstone rubble with ashlar matching sandstone blocks for finishing and lime mortar. The overall measurement between extremities of wingwalls is one-hundred and twenty-six feet. Two six foot, eleven inch stone piers in the creek bed and abutments on each side support three shallow arches each approximately thirty-three feet long at the bottom chord. The abutments on each bank are supported by wingwalls eight feet, six inches wide and twenty-four, five inches long, at about forty-five degrees to the aqueduct. Their full height includes the coping stones. A dry-laid stepped wall makes the transition down to the creek bank from the wingwalls (C&O Canal National Register Nomination, 1979:30-31). The aqueduct abuts Lock 24 at its eastern end, essentially making the lock and the aqueduct one structure (see Lock 24 description above). On its western end, it connects to the canal prism by a dry-laid stone wall on the towpath side and by a mortared stone wall on the berm side (Seneca Aqueduct and Lock 24 Historic Structures Report 1979:10). To correct leaks which had developed in the aqueduct,

the berm-side parapet and spandrels were rebuilt during the winter of 1873-1874 (Unrau 1979:32-33).

An iron fence is located on the river side of the aqueduct. It was added to the structure in 1832 and is more fully described in the Small Scale Features section.

A concrete wastew weir has been incorporated into the northeast wingwall of the aqueduct. The wastew weir is described in more detail below.

Current Condition

The upstream face of the aqueduct up from the spring of the arch to the coping stone has a noticeable tilt towards upstream. The running water of the canal has worn away the mortar joints, the spring blocks of the piers and abutments have settled, and one inch cracks at the spring near the upstream side of the barrel of the arch become four inches at the crown. These cracks appear old and the spreading has been so gradual that the upstream wall face has tilted as a whole rather than developing multiple joint cracks. This pulling away of the face has weakened the barrel vault and resulted in cracks and missing stones on those interior surfaces.

A severe storm in September 1971 caused Seneca Creek to flood, causing major damage to the aqueduct. The water level rose above the aqueduct coping stones and the debris carried in the raging creek collected against the berm side of the aqueduct until the west arch collapsed. The aqueduct was stabilized by the positioning of eighteen inch diameter steel pipes between the exposed faces of the abutment and pier on the west end of the structure. The entire faces of both sides of the break were then covered in 'shotcrete'. A wooden pedestrian bridge spans the missing arch and spandrel to create towpath continuity over the aqueduct (Seneca Aqueduct and Lock 24 Historic Structures Report 1979:12-13).

Sometime after the NPS acquired the canal, a metal link fence was installed along the top of the lock and aqueduct. The metal fence posts have been inserted into the coping stones and this has a negative impact on both structures.

Note: There is a pile of stones located southwest of the aqueduct in the picnic area. These stones were dislodged from the aqueduct in the 1971 flood and should be used in any rebuilding project.

Wastew weir - Seneca Creek Aqueduct

Historic Condition

The wastew weir is set into the west (upper) berm wingwall of the Seneca Aqueduct. Constructed of concrete, it is twelve feet wide and about eight feet tall. The opening is separated by two piers into three sections, each about feet wide. It is not clear if the wastew weir was built at the same time as the rest of the aqueduct or inserted later. Further research is needed.

Current Condition

The wastewear no longer performs its function of allowing for the control of overflow since the canal prism and aqueduct are no longer watered. A portion of the floor, which was supposed to overhang the aqueduct wall, was damaged sometime before the NPS acquired the canal (CHOH Historic Photo Files, File 477). This overhang protected the sandstone wall of the aqueduct somewhat from the flow of water. It has since been repaired and replaced. Currently, the structure is listed in poor condition on the LCS due to the overall poor condition of the aqueduct. Vegetation growth around the structure is very heavy and should be removed.

Seneca Creek Basin

Historic Condition

In a natural low marshy area on the west side of Seneca Creek at its mouth, the canal prism was widened to accommodate boat and barge turning. Stone loading docks for the Seneca sandstone quarries were also built along the north side of this triangular basin, not far from where the 19th-century stone-cutting mill/building is located (this structure is not on NPS property). The basin was originally about two-thousand feet long by five-hundred feet wide. It appears on an 1830 deed for property acquired by the canal company from John P.C. Peter (Montgomery County Land Records, Liber BS 3, Folio 192, 193).

Current Condition

The basin remains extant in the landscape. It has begun to fill in, especially on its eastern end where it is beginning to melt into the adjacent swampy area there. The basin is still watered by an unnamed stream that flows through the area and empties into Seneca Creek.

Culvert 35 (Bull Run Creek Culvert)

Historic Condition

Built circa 1832, this culvert is constructed of Seneca red sandstone and is eight feet wide with the barrel built on a four foot radius. It passes under the berm, canal prism, and towpath for drainage of Bull Run Creek.

Current Condition

Culvert 35 continues to serve its function of carrying Bull Run Creek under the canal and towpath. While stable, the structure is overgrown with vegetation and the barrel should be desilted. The headwall and wingwalls need repointing and at least one stone needs replacing.

Character-defining Features:

Feature:	Canal Prism Mile 22-23
Feature Identification Number:	145961
Type of Feature Contribution:	Contributing
IDLCS Number:	46583
LCS Structure Name:	Mile 022-023, Canal Prism
LCS Structure Number:	022.01

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Feature: Canal Prism Mile 22-23

Feature Identification Number: 145982

Type of Feature Contribution: Contributing

IDLCS Number: 46583

LCS Structure Name: Mile 022-023, Canal Prism

LCS Structure Number: 022.01

Feature: East Basin

Feature Identification Number: 145971

Type of Feature Contribution: Contributing

Feature: Lock 24

Feature Identification Number: 145981

Type of Feature Contribution: Contributing

IDLCS Number: 12750

LCS Structure Name: Lock 24

LCS Structure Number: 022.80

Feature: Seneca Creek Aqueduct

Feature Identification Number: 145973

Type of Feature Contribution: Contributing

IDLCS Number: 12751

LCS Structure Name: Seneca Creek Aqueduct

LCS Structure Number: 022.81

Feature: Wasteweir - Seneca Creek Aqueduct

Feature Identification Number: 145975

Type of Feature Contribution: Contributing

IDLCS Number: 46623

LCS Structure Name: Wasteweir - Seneca Creek Aqueduct

LCS Structure Number: 022.81A

Feature: Seneca Creek Basin

Feature Identification Number: 145977

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Type of Feature Contribution:	Contributing
IDLCS Number:	11597
LCS Structure Name:	Seneca Creek Basin
LCS Structure Number:	022.90
Feature:	Culvert 35
Feature Identification Number:	145979
Type of Feature Contribution:	Contributing
IDLCS Number:	11598
LCS Structure Name:	Culvert 35
LCS Structure Number:	023.33

Landscape Characteristic Graphics:



Seneca Aqueduct, inlet side. Seneca Creek is in the foreground. (NPS/LCS 2005)



Culvert 35, outlet side (NPS/LCS 2006)



Seneca Creek Basin, looking northwest. (NPS/LCS 2007)



Lock 24, looking east. (CLP, 2010)

Views and Vistas

Historic Condition

The views up and down the canal were very open as were the views across the river and up Seneca Creek. There were trees along both the berm and towpath side of the canal that were part of the historic view (CHOH Historic Photos Seneca Area).

Another key element in the historic view would have been that of flowing water. The water flowing through the canal prism and aqueduct was as large a part of the views and vistas as were the wide, slow moving waters of the Potomac River and the faster flowing Seneca Creek..

Current Condition

Today, the views of the Seneca Lock area are narrowed by the river and canal side vegetation, especially tree growth, which is heavier than during the period of significance. The view south across the river and north up Seneca Creek, however are less impacted.

A major missing feature of the views and vistas of the project area is water flowing through the prism, lock and aqueduct. This once impressive part of the Seneca Lock view is gone.

Analysis

Due to increased vegetation along the river and berm side of the canal, the views and vistas of Seneca Lock have a low degree of integrity

Character-defining Features:

Feature: Views east&west along the river & canal

Feature Identification Number: 145987

Type of Feature Contribution: Contributing

Small Scale Features

Historic Condition

The small scale features that were extant during the period of significance included fences; a bench, stone retaining walls, and the iron aqueduct fence (CHOH Historic Photos). It is also likely that a snubbing post was located on the river side of the lock.

Photos from the latter part of the period of significance show a wooden fence, possibly picket, between the lockhouse and the lock. There was also a wooden bench located east of the watch house and parallel to the lock. (CHOH Historic Photos, File 455). A wooden rail fence ran along the river side of the aqueduct (CHOH Historic Photos, File 456).

Stone retaining walls are found on the east and west sides of the lockhouse on its north elevation. These dry-laid walls are made of Seneca sandstone. Their precise date of construction is unknown, but they function to help maintain the small hillside that the lockhouse is sited on and so are likely to date to the period of significance.

An iron fence is located on the river side of the aqueduct. It was added to the structure in 1832 and consisted of iron pickets set into the coping stones of the structure. The pickets were twenty-one inches high, with every fifth picket being forty-three inches high. Each picket was surmounted by a round integrally formed arrowhead. There were two horizontal cross bars, two and one-half inches wide. The fence ended at an architectural sandstone column located on top of the coping stones at the ends of both riverside wingwalls (Seneca Aqueduct and Lock 24 Historic Structures Report 1979:112-13). Note: This feature is not listed as a separate structure in either the National Register Nomination or the LCS, but as part of the aqueduct.

Current Condition

The wooden fences along the aqueduct and at the lockhouse and bench are no longer extant. The stone retaining walls remain.

A small section of the original iron fence is also still in place as are the sandstone end columns. The southeast column is completely intact, while the southwest column is missing its capstone. Chiseled onto the downstream face of the southeast column is the date '1889 JU 2, under that a

horizontal line and below that the letters 'J.W.Fisher'. Local history records that this is the high watermark of the June 2, 1889 flood. J.W. Fisher was the. On the southwest column remnant the initials 'W.T.M' are chiseled on its west face.

A short stone path leads from the lock to the lockhouse, but its construction date is unknown.

Sometime after the NPS acquired the canal, a metal link fence was installed along the top of the lock and aqueduct. A white picket fence was also installed parallel to the lock between it and the lockhouse. Further research is needed to determine when these fences were installed.

Other non-contributing small scale features include park signage, two waysides, a water fountain and pump, wooden steps leading from the parking lot to a wooden bridge that crosses the lock at its western end, and a wooden bridge that carries the towpath over the missing section of the aqueduct. There is also a white three-rail fence that partially encloses the West House yard and a wood-log retaining wall along a section of the north edge of the parking lot. Picnic tables and metal grills are found in the picnic areas located on either side of the creek, between the towpath and the river.

Analysis

Due to the loss of almost all small features from the period of significance this feature has only limited integrity.

Character-defining Features:

Feature: Iron Aqueduct Fence and Columns

Feature Identification Number: 145985

Type of Feature Contribution: Contributing

Feature: Retaining Walls

Feature Identification Number: 145995

Type of Feature Contribution: Contributing

Feature: Metal Chain-Link Fence

Feature Identification Number: 146105

Type of Feature Contribution: Non Contributing

Feature: Park Signage

Feature Identification Number: 146107

Type of Feature Contribution: Non Contributing

Feature: Water Fountain

Feature Identification Number: 146109

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Type of Feature Contribution: Non Contributing

Feature: Water Pump

Feature Identification Number: 146111

Type of Feature Contribution: Non Contributing

Feature: Wooden Steps

Feature Identification Number: 146113

Type of Feature Contribution: Non Contributing

Feature: Wooden bridge across Lock

Feature Identification Number: 146115

Type of Feature Contribution: Non Contributing

Feature: Wooden bridge across Aqueduct

Feature Identification Number: 146156

Type of Feature Contribution: Non Contributing

Feature: Parking Lot Retaining Wall

Feature Identification Number: 146173

Type of Feature Contribution: Non Contributing

Feature: Picnic Tables

Feature Identification Number: 146175

Type of Feature Contribution: Non Contributing

Feature: Wood Picket Fence near Lockhouse

Feature Identification Number: 146195

Type of Feature Contribution: Non Contributing

Feature: Grills

Feature Identification Number: 146196

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:

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Aqueduct Iron Fence and Column, east side, looking upriver. (NPS/LCS 2005)



*View of Lockhouse, wooden bridge, picket fence, chain link fence. Looking northeast.
(CLP, 2010)*

Archeological Sites

Identification of contributing and non-contributing archaeological resources is beyond the scope of this report, but the historic nature of the project area and the presence of features, such as ruins associated with the C&O Canal and the quarry operations (if on our property), suggest that contributing resources exist.

(Please refer to the Archaeological Identification and Evaluation Study of C&O Canal NHP Volume I, Louis Berger Group Inc., 2007 for more detailed information.)

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 09/23/2010

Condition Assessment Explanatory Narrative:

The Condition Assessment Date refers to the date the park superintendent concurred with the findings of this CLI. This determination takes into account both the landscape and the buildings situated therein. In order to improve the condition of the property to 'good' the park should complete the following:

1. The various buildings, structures, ruins and constructed water features should be stabilized and repaired.
2. Floods and freshets of both the Potomac River and Seneca Creek have the potential to cause erosion and damage historic structures. Repairs and stabilization will likely be required following future floods.
3. Monitor and control invasive plant species. Remove overgrown vegetation where there is a negative impact on structures, especially near the various ruins found in the project area.

Impacts

Type of Impact: Deferred Maintenance

Other Impact: Some of the structures are in need of stabilization, rehabilitation and repair. The condition of the structures at Seneca Lock, especially the state of the aqueduct, has the greatest negative impact on the cultural landscape.

External or Internal: Internal

Type of Impact: Flooding

Other Impact: Seneca Lock has been severely impacted by flooding of the Potomac River and Seneca Creek in the past. The absence of water in the canal prism will help to minimize flood damage in the future, but repairs will likely be necessary following future floods.

External or Internal: External

Type of Impact: Erosion

Other Impact: Erosion is having an impact on the Seneca Creek Basin (Mile 22.90) which is silting up. While the canal is not watered above Lock 23, this basin is apparently filled by a natural stream. It

	should be carefully monitored.
External or Internal:	External
Type of Impact:	Vegetation/Invasive Plants
Other Impact:	Invasive plant species have the potential to drive out native species that were present during the period of significance. They should be closely monitored.
External or Internal:	External
Type of Impact:	Vegetation/Invasive Plants
Other Impact:	The area north of the Seneca Creek Basin is more heavily vegetated than during the historic period. This vegetation blocks the views of the sandstone quarry face, making it is difficult to understand the importance of the quarry activities to the site.
External or Internal:	External
Impact Description:	Further research is necessary, however, to determine whether vegetation removal on NPS property would effectively expose the quarry resources. At least some of these resources are located on state or privately owned property. (See Adjacent Lands section)
Type of Impact:	Adjacent Lands
Other Impact:	The quarry and stone-cutting building are located on state-owned land. These important historic features and with the potential archeology of the area cannot be accessed or understood. Also the stone-cutting building/mill is in a very ruinous state.
External or Internal:	External
Type of Impact:	Vandalism/Theft/Arson
Other Impact:	Any damage cause by vandalism should be promptly repaired and the area closely monitored by law enforcement. The Seneca Lock area is heavily utilized for recreational purposes and the probability of vandalism is high.
External or Internal:	External
Type of Impact:	Visitation
Other Impact:	Social trails across the eastern end of the now-dry canal basin located adjacent to the lockhouse are leading to erosion of the

towpath and berm bank. Social trails are also causing erosion where they lead off the towpath to picnic areas on the river.

External or Internal: External

Treatment

Treatment

Approved Treatment: Undetermined

Bibliography and Supplemental Information

Bibliography

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- Year of Publication:** 1948
- Citation Publisher:** Authorized by Public Law 618-80th Congress, Chapter 435, 2nd Session, Approved J
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- Citation Author:** Clark, Ella E. & Hahn, Thomas F. (edited by)
- Citation Title:** Life on the Chesapeake & Ohio Canal 1859
- Year of Publication:** 1979
- Citation Publisher:** Shepherd House, Shepherdstown, WV
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- Citation Author:** Donn, John
- Citation Title:** Potomac River From Great Falls to Whitesville Surveyed under the direction of Maj. C.S. Stewart, US Eng'rsChief Engineer Middle Military Division By John Donn, Sub AssistAssigned by A.D. Bache, Supdt. US Coast Survey
- Year of Publication:** 1865
- Citation Publisher:** US Government
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- Citation Author:** Earley, Judith
- Citation Title:** National Park Service Cultural Landscapes Inventory: Pennyfield Lock, Chesapeake and Ohio Canal National Historical Park
- Year of Publication:** 2004
- Citation Publisher:** US DOI/NPS NCR
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- Citation Author:** Geddes, John, and Nathan Roberts
- Citation Title:** Geddes and Roberts Survey of the Canal (Map)
- Year of Publication:** 1827

- Citation Author:** Gerdes, Marti
Citation Title: National Park Service Cultural Landscape Inventory: History and Development of the Chesapeake & Ohio Canal
Year of Publication: 2000
Citation Publisher: US DOI/NPS NCR Draft
- Citation Author:** Hahn, Thomas
Citation Title: Towpath Guide to the C& O Canal
Year of Publication: 1999
- Citation Author:** Hahn, Thomas F.
Citation Title: Chesapeake and Ohio Canal Old Picture Album
Year of Publication: 1976
Citation Publisher: The American Canal & Transportation Center, Shepherdstown, WV.
- Citation Author:** Kapsch, Robert J.
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Year of Publication: 2007
Citation Publisher: University of West Virginia Press, Morgantown WV
- Citation Author:** Kytle, Elizabeth
Citation Title: Home on the Canal - An informal history of the C& O Canal, and recollections of eleven men and women who lived and worked it
Year of Publication: 1983
Citation Publisher: Seven Locks Press, Cabin John, MD/Washington, DC.
- Citation Author:** Mackall, B.F.
Citation Title: Property of the Chesapeake and Ohio Canal Co. From Williamsport to Big Pool
Year of Publication: 1894

Citation Author:	Mackintosh, Barry
Citation Title:	C& O Canal the Making of a Park
Year of Publication:	1991
Citation Publisher:	US DOI/NPS NCR
Citation Author:	National Park Service
Citation Title:	Chesapeake and Ohio Canal National Historical Park Archives, Park Headquarters, Park Archives, Historic Photograph Files
Year of Publication:	2007
Citation Publisher:	US DOI/NPS NCR
Citation Author:	National Park Service
Citation Title:	Chesapeake and Ohio Canal National Historical Park Archives, Park Headquarters, Park Archives, Historic Resource Files
Year of Publication:	2007
Citation Publisher:	DOI/NPS NCR
Citation Author:	National Park Service
Citation Title:	Chesapeake and Ohio Canal National Historical Park Archives, Park Headquarters, Park Archives, Historic Structure Files
Year of Publication:	2007
Citation Publisher:	US DOI/NPS NCR
Citation Author:	National Park Service
Citation Title:	List of Classified Structures Database
Citation Author:	National Park Service
Citation Title:	National Register Nomination for the Chesapeake & Ohio Canal.
Year of Publication:	1979
Citation Publisher:	National Park Service

Citation Author:	National Park Service
Citation Title:	CHOH Tract Files (Acquisition Records)
Citation Type:	
Citation Location:	CHOH Lands Coordinator's Office
Citation Author:	National Park Service: Temkin, Martha, Bart Bickel, Barbara Stafford, and Jennifer Hanna
Citation Title:	National Park Service Cultural Landscapes Inventory: Great Falls Tavern, Chesapeake and Ohio Canal National Historical Park
Year of Publication:	2004
Citation Publisher:	US DOI/NPS NCR
Citation Author:	Offutt, William
Citation Title:	Bethesda: A Social History through Two World Wars
Year of Publication:	1997
Citation Publisher:	The Innovation Game
Citation Author:	Parsons, John G.
Citation Title:	Chesapeake & Ohio Canal National Historical Park, District of Columbia/Maryland, General Plan
Year of Publication:	1981
Citation Publisher:	US DOI/NPS NCR
Citation Author:	Prentice, J.R. and Hahn, T. F.
Citation Title:	Prentice-Hahn Survey of the C& O Canal
Year of Publication:	1973
Citation Publisher:	NPS NCR
Citation Author:	Scharf, J. Thomas
Citation Title:	History of Western Maryland. Volume 1 (originally published Philadelphia, 1882)
Year of Publication:	1968
Citation Publisher:	Baltimore Regional Publishing Company

Citation Author:	Shaffer, Donald R
Citation Title:	We Are Again in the Midst of Trouble': Flooding on the Potomac River and the Struggle for Sustainability of the Chesapeake and Ohio Canal, 1828-1996
Year of Publication:	1997
Citation Publisher:	US DOI/NPS NCR
Citation Author:	Southworth, C. Scott, David K. Brezinski, Randall C. Orndorff, Peter G. Chirico and Kerry M. Lagueux
Citation Title:	Geology of the Chesapeake and Ohio Canal National Historical Park and Potomac River Corridor, District of Columbia, Maryland, West Virginia, and Virginia
Year of Publication:	1999
Citation Publisher:	US Geological Survey
Citation Author:	Sween, Jane
Citation Title:	Dawonville History (Revised in 1993)
Year of Publication:	1967
Citation Publisher:	Located at Montgomery County Historical Society
Citation Author:	The Louis Berger Group, Inc.
Citation Title:	Archeological Identification and Evaluation Study of C& O Canal National Historical Park Rock Creek to Sandy Hook (Mile Markers 0 to 59) Volume I
Year of Publication:	2005
Citation Publisher:	DOI/NPS NCR
Citation Author:	Unknown
Citation Title:	Wikipedia, Locks on the C& O Canal
Citation Type:	
Citation Location:	http://en.wikipedia.org/wiki/Locks_on_the_C&O_Canal

Citation Author:	Unknown
Citation Title:	Quarry Masters House Inventory
Year of Publication:	1979
Citation Publisher:	Maryland Historic Trust
Citation Author:	Unknown
Citation Title:	Seneca Historic District National Register Nomination,
Year of Publication:	1977
Citation Author:	Unknown
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Year of Publication:	1973
Citation Publisher:	NPS
Citation Author:	Unknown
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Year of Publication:	1978
Citation Publisher:	Maryland Historic Trust
Citation Author:	Unrau, Harlan D.
Citation Title:	Historic Structures Report: The Culverts
Year of Publication:	1976
Citation Publisher:	US DOI/NPS/ Denver Service Center
Citation Author:	Unrau, Harlan D.
Citation Title:	Historic Structures Report: The Seneca Aqueduct
Year of Publication:	1976
Citation Publisher:	USDOI/Denver Service Center
Citation Author:	Unrau, Harlan D.
Citation Title:	Historic Structures Report: The Lockhouses
Year of Publication:	1978
Citation Publisher:	USDOI/NPS

Citation Author: Unrau, Harlan D.
Citation Title: Chronological History of the Chesapeake & Ohio Canal [Historic Resource Study of the C& O Canal Multi Volume]
Year of Publication: 1977
Citation Publisher: NPS/NCR Seneca, Maryland

Citation Author: Unrau, Harlan D.
Citation Title: Historic Resource Study: History of the C& O Canal
Year of Publication: 2007
Citation Publisher: USDOI/NPS

Citation Author: US DOI/Geological Survey
Citation Title: Seneca, Maryland. 1:125,000. Surveyed 1908, Seneca Quadrangle.
Year of Publication: 1908
Citation Publisher: USGS

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Year of Publication: 1997
Citation Publisher: US DOI/NPS C& O NHP, Hagerstown, MD

Citation Author: Wilderman, Michael P.
Citation Title: Environmental Assessment-Preserve Seneca Creek Aqueduct and Lock No.24, Pkg.No.049
Year of Publication: 1980
Citation Publisher: DOI/NPS

Citation Author: Ziek, Robin
Citation Title: Archeological Testing Lock #24
Year of Publication: 1979
Citation Publisher: DSC/NPS

Supplemental Information

Title: DSC TIC 412-80704 (Drawing)

Description: 1939

Title: DSC TIC 412-80706) (Drawing)

Description: 1952

Title: <http://nps.gov/grfa/history/culture/canal.htm>

Title: Liber BS3, Folio 25 and Liber BS2, Folio 608, Montgomery County Land Records

Description: Located at Rockville County Courthouse

Title: Map of Quarries at Seneca, Maryland (2006)

Description: Kapsch, Robert

Title: Seneca Camp Club article (Letter to Montgomery County Historical Society, 1959)

Description: William Prettyman