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Chesapeake & Ohio Canal National Historical Park
Williamsport, Maryland



Cultural Landscape Report
Fletcher's Cove

October 2022

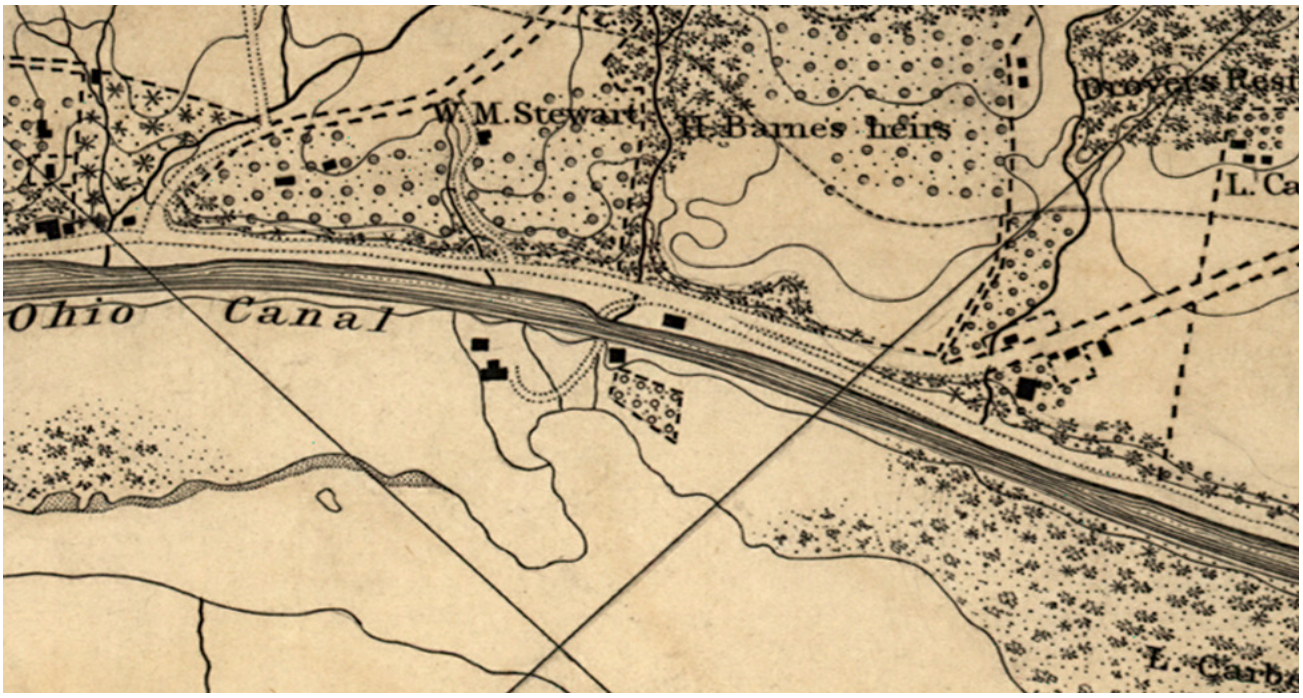
Resource Stewardship and Science
Division of Cultural Resources, National Capital Region

Cultural Landscape Report

Fletcher's Cove

Chesapeake & Ohio Canal National Historical Park

Williamsport, Maryland



October 2022

Prepared by:

Quinn Evans

U.S. Department of the Interior • National Park Service • National Capital Region • Resource Stewardship and Science • Washington, DC

2022

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Cover Photo: View across the Potomac River from Fletcher's Cove, facing southwest, (QE, 2021)

Title Page: Detail. A. Boschke, "Topographical Map of the District of Columbia," 1861 (Library of Congress).

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS IV

EXECUTIVE SUMMARY XIV

ACKNOWLEDGMENTS XVI

INTRODUCTION 3

Study Area Boundaries and Description 4
Summary Historical Overview 8
Project Methodology 9
Report Contents 10

PART ONE 11

SITE HISTORY 15

National Register Status & Significance 15
Narrative Site History 18
Geomorphology and Indigenous Use, Before 1600 CE 18
Colonial Maryland, the Little Falls Skirting Canal, and "Lock Cove," 1600–1825 20
Landscape Condition, 1600–1825 30
Industrial, Residential, and Early Recreational Use and the C&O Canal, 1826–1938 33
Landscape Condition, 1826–1938 44
National Park Service Stewardship and Enhanced Recreational Use, 1939–1966 47
Landscape Condition, 1939–1966 56
National Historic Park, 1967–Present 59

EXISTING CONDITIONS AND ANALYSIS 73

Summary of Landscape Integrity 75
List of Landscape Features 78
Overall Study Area Existing Conditions & Analysis 78
Canal Corridor Existing Conditions & Analysis 119
Riverfront Recreation Existing Conditions & Analysis 145

PART TWO 159

TREATMENT FRAMEWORK 163

Existing laws, policies, regulations, and guidance 163
Overall Management Issues 164
Vision 166
Goals 166
Treatment Approach 166

TREATMENT GUIDELINES 173

General Treatment Guidelines for Overall Study Area 173
Site-Specific Guidelines 186

Bibliography

LIST OF ILLUSTRATIONS

DRAWINGS

Historic Period Plan 1. 1600–1825 31
Historic Period Plan 2. 1826–1938 45
Historic Period Plan 3. 1939–1966 57
Drawing 3-1. Hydrology Analysis Diagram (QE, 2022) 83
Drawing 3-2. Spatial Organization at Fletcher's Cove during the period of significance, 1793–1966, encompassing an area of development including the mill, mill races, guano factory, and circulation associated with the canal and industrial buildings. The bubble on the left diagram illustrates the general location of the developed area at its height between 1826 and1938 and the right diagram illustrates this area overlaid on today's landscape (QE, 2022) 93
Drawing 3-3. Circulation Analysis Diagram (QE, 2022) 99
Drawing 3-4. Views Analysis Diagram (QE, 2022) Views are illustrated in both the overall and LCA sections 103
Drawing 3-5. Vegetation Analysis Diagram (QE, 2022) 111
Drawing EC 1. Existing Conditions, Overall Study Area 117
Drawing EC 2. Existing Conditions, Detail Area 143
Drawing RT- 1. Recommended Treatment Drawing 193

FIGURES

Figure 1-1. Regional context map (QE, 2022) 5
Figure 1-2. Landscape Character Areas (LCAs) used to describe the Fletcher's Cove cultural landscape (QE, 2022) 7
Figure 2-1. Plat map showing 1689 land grant for White Haven tract, ca. 1840s. The Fletcher's Cove study area is located approximately in the center of the map, at the upper end of the drawing, near the upper bend of the Potomac River depicted on the map (Collection of the Colonial Dames of America, Chapter III, Washington, DC) 20
Figure 2-2. Drawing of three wooden locks at the terminus of the Little Falls Skirting Canal at Lock (Fletcher's) Cove. The northwestern end of the Fletcher's Cove study area is situated at the lower right of the image. Drawing by James Geddes, 1827 (National Archives and Records Administration) 22
Figure 2-3. (left) Benjamin Henry Latrobe, section drawing, Washington City Canal, 1810 (Library of Congress) 22
Figure 2-4. (right) Benjamin Henry Latrobe, section drawing, Washington City Canal, 1810 (Library of Congress) 22
Figure 2-5. Diagram showing the locations of the old and new locks at Lock (Fletcher's) Cove, 1816 (Library of Congress) 22
Figure 2-6. Detail of site plan. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress) 24
Figure 2-7. Section detail, from larger drawing. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress) 24
Figure 2-8. Full drawing. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress) 24
Figure 2-9. Map of Little Falls Skirting Canal. The map shows the paths of the mill races and the old and new locks. H.W. Brewer, 1828 (National Park Service) 26
Figure 2-10. Detail. Board for the Improvement of the Harbors of Washington and Georgetown, DC, "Map of the Potomac River from Georgetown to the Foot of Little Falls," 1872

(Library of Congress) 35
Figure 2-11. Detail. A. Boschke, "Topographical Map of the District of Columbia," 1861 (Library of Congress) 35
Figure 2-12. Earl Minderman, "Skating at the Abner Cloud House," 1981. Minderman's painting was the artist's vision of how the area around the Abner Cloud House might have appeared in the ninteeenth century (Thomas Hahn Collection, George Washington University) 35
Figure 2-13. Detail. Griffith Morgan Hopkins, Jr., "Atlas of fifteen miles around Washington, including the County of Prince George, Maryland / compiled, drawn, and published from actual surveys by G. M. Hopkins," 1878 (Library of Congress) 36
Figure 2-14. Photograph of a building associated with the Fletcher's Boathouse business, 1912. This building was described as being located near the intersection of Canal Road and New Cut (now Reservoir) Road (*Evening Star*, April 21, 1912) 36
Figure 2-15. Detail of map showing the Georgetown Branch spur of the Baltimore & Ohio Railroad. "Upper Potomac Park Project to Preserve the Great Falls and Palisades of the Potomac," 1927 (Library of Congress) 36
Figure 2-16. (left) Photograph of ruinous structure mistakenly labeled the "Cloud-Edes Mill," 1930 (Allen C. Clark, "The Old Mills," *Records of the Columbia Historical Society, Washington, DC*) 38
Figure 2-17. (right) Photograph of ruinous structure incorrectly believed to have been Edes's mill, undated (Historical Society of Washington, DC) 38
Figure 2-18. Aerial photograph showing Fletcher's Cove site, 1922 (National Park Service) 38
Figure 2-19. Photograph showing the Abner Cloud House, C&O Canal, and towpath, looking southeast from towpath, 1909. By this time, a second-story porch had been added to the house and a wall was constructed northwest of the house (shown in front of the house from the viewpoint of the image) (Library of Congress) 38
Figure 2-20. Photograph of area near mill site showing house at left, 1939 (Thomas C. Vint, *Outline Report of Architectural Work on the Restoration of the Chesapeake and Ohio Canal for Recreational Use (Georgetown, DC, to Seneca, MD)* (National Park Service, 1939), 15) 48

Figure 2-21. Plat map showing project area, 1952. The house captured in the 1939 Thomas Vint report is shown as a box near the center of the image (Washington, DC, Surveyor's Office) 48
Figure 2-22. Detail of map, showing project area, 1945 (U.S. Geological Survey) 48
Figure 2-23. Photograph of the Abner Cloud House and the Boathouse structures, looking southeast, 1958 (People's Archive, Washington, DC, Public Library) 50
Figure 2-24. Aerial photograph of project area, 1951 (National Park Service) 50
Figure 2-25. Photograph showing some of the homes along the canal demolished in 1958. Near the middle of the photograph is the Abner Cloud House, which was spared from demolition (*Evening Star*, March 6, 1958) 50
Figure 2-26. Photograph showing some of the homes along the canal demolished in 1958 (*Evening Star*, 1953) 52
Figure 2-27. Boathouse and refreshment stand, 1963. Also note the worn area in the foreground that was used for parking (Historical Society of Washington, DC) 52
Figure 2-28. Aerial photograph of project area, 1963 (National Park Service) 52
Figure 2-29. Preliminary drawing of the unbuilt plan to redevelop the boathouse and refreshment stand, 1966 (National Park Service) 60
Figure 2-30. Aerial photograph showing new parking area, 1971 (National Park Service) 60
Figure 2-31. Site plan showing the removal of two buildings associated with the boathouse, 1977 (National Park Service) 60
Figure 2-32. Photograph showing rehabilitation of the Abner Clouse House, undated (Alice Fales Stewart, *The Palisades of Washington, DC*) 60
Figure 2-33. Plan for rechannelization near Fletcher's Cove, 1985 (C&O Canal National Historical Park Headquarters, National Park Service) 62
Figure 2-34. Photograph showing the wooden footbridge, undated (Alice Fales Stewart, *The Palisades of Washington, DC)* *62*
Figure 2-35. View of Capital Crescent Trail, looking southeast. Photograph by Thomas H. Skadow, 2015. (Available through Creative Commons at https://commons.wikimedia.org/wiki/File:Fletcher%27s_Cove_Trail_Head.JPG) 62
Figure 3-1. View from Fletcher's Cove across the Potomac River

(QE, 2021) 84
Figure 3-2. The Maddox Branch flows between Fletcher's Road and the Battery Kemble Culvert (QE, 2021) 84
Figure 3-3. Jogging and cycling are two common recreational activites in the study area (QE, 2021) 87
Figure 3-4. Exposed bedrock meets the Canal Road retaining wall on Fletcher's Road (QE, 2021) 89
Figure 3-5. Undulating groundplane in the North Woods as a result of fill (QE, 2021) 89
Figure 3-6. Standing water amidst altered topography in the North Woods (QE, 2021) 91
Figure 3-7. Stairs and a ramp convey visitors up and down the berm between the Canal Corridor and Riverfront Recreation Areas (QE, 2021) 91
Figure 3-8. The C&O Canal, Towpath Trail, and Abner Cloud House facing north (QE, 2021) 92
Figure 3-9. The ravine carries water from Wasteweir 3 to Fletcher's Cove (QE, 2021) 95
Figure 3-10. Wasteweir 3 conveying water from the C&O Canal (QE, 2021) 95
Figure 3-11. Potential remnants of mill building and mill race in the North Woods (QE, 2021) 96
Figure 3-12. Sluiceway facing north (QE, 2021) 97
Figure 3-13. Fallen logs block the entrance to the sluiceway (QE, 2021) 97
Figure 3-14. The social trail through the North Woods follows the shoreline and is utilized by anglers and hikers (QE, 2021) 98
Figure 3-15. The South Woods social trail begins at the south end of the parking area (QE, 2021) 101
Figure 3-16. The South Woods social trail is a single track that continues south along the floodplain (QE, 2021) 101
Figure 3-17. View 1 approaching the Abner Cloud House entering Fletcher's Road (QE, 2021) 104
Figure 3-18. View 2 approaching the Fletcher's Road Culvert (QE, 2021) 104
Figure 3-19. View 3 emerging from the culvert, enclosed by vegetation (QE, 2021) 105
Figure 3-20. View 4 crossing the Maddox branch, opening up to the cove and river beyond (QE, 2021) 105
Figure 3-21. View 5 from the Abner Cloud House facing west across the canal (QE, 2021) 106
Figure 3-22. View 6 from Fletcher's Boathouse to Fletcher's Cove (QE, 2021) 106

Figure 3-23. View 7 from the pedestrian bridge to the stone lock remnants, facing west (QE, 2021) 107
Figure 3-24. View 8 from the north isthmus looking east across Fletcher's Cove (QE, 2021) 107
Figure 3-25. View 9 facing west across the sluiceway (QE, 2021) 108
Figure 3-26. View 10 from the east bank of the Potomac River in the North Woods looking west (QE, 2021) 108
Figure 3-27. View 11 across the picnic area to the Potomac River, facing southwest (QE, 2021) 109
Figure 3-28. Large sycamore located east of the canal (QE, 2021) 112
Figure 3-29. A wooden pedestrian bridge provides access to the North Woods and is constructed on repurposed steel I-beams (QE, 2021) 113
Figure 3-30. The corner of the stone foundation remnant, likely part of the mill (QE, 2021) 114
Figure 3-31. A steel I-beam attached to a stone and concrete remnant in the North Woods (QE, 2021) 115
Figure 3-32. A stone and concrete remnant, possibly from the "new locks" downstream of Wasteweir 3 (QE, 2021) 116
Figure 3-33. The canal and towpath from the pedestrian bridge, facing north (QE, 2021) 123
Figure 3-34. Visual connection between the Capital Crescent Trail and Fletcher's Cove at the pedestrian ramp and stairs (QE, 2021) 123
Figure 3-35. Board-formed concrete extension of the Fletcher's Road culvert (QE, 2021) 125
Figure 3-36. The Maddox Branch Culvert under Canal Road NW, Potomac Interceptor access manhole in foreground (QE, 2021) 125
Figure 3-37. Historic Culvert 159-C conveys water under Canal Road NW across from Mile Marker 3 (QE, 2021) 126
Figure 3-38. Site access at the intersection of Canal Road NW and Fletcher's Road (QE, 2021) 127
Figure 3-39. Fletcher's Road condition, facing southeast from the Fletcher's Road Culvert (QE, 2021) 128
Figure 3-40. Accessible parking space with wood edging inhibiting access to the Abner Cloud House (QE, 2021) 128
Figure 3-41. Cyclists entering the Fletcher's Road Culvert with limited visibility (QE, 2021) 129
Figure 3-42. Visitors utilizing the C&O Canal and towpath for recreation (LOC, 1909) 131
Figure 3-43. Recreational use of the canal and Towpath Trail in 2021 (QE, 2021) 131

Figure 3-44. View 12 from the pedestrian bridge down the canal, facing south (QE, 2021) 132
Figure 3-45. View 13 from the Towpath Trail to the Abner Cloud House and hillside beyond (QE, 2021) 133
Figure 3-46. View 15 from the Towpath Trail facing north along the C&O Canal (QE, 2022) 133
Figure 3-47. Two linden trees and a crepe myrtle shrub on the south side of the Abner Cloud House (QE, 2021) 134
Figure 3-48. River birches planted between the comfort station and Maddox Branch (QE, 2021) 135
Figure 3-49. The north and west facades of the Abner Cloud House (QE, 2021) 136
Figure 3-50. The south and west facades of the comfort station/odor control facility with porch and restroom access (QE, 2021) 137
Figure 3-51. The east facade of the comfort station/odor control facility from the vehicular bridge over the Maddox Branch (QE, 2021). 138
Figure 3-52. The stone retaining wall negotiates the change in grade between Canal Road and Fletcher's Road (QE, 2021) 138
Figure 3-53. The pedestrian bridge spanning the C&O Canal (QE, 2021) 139
Figure 3-54. Wooden stairs and ramp connect the Canal Corridor and Riverfront Recreation Areas (QE, 2021) 140
Figure 3-55. Signage along the Towpath Trail (QE, 2021) 141
Figure 3-56. Concrete bin blocks separating vehicular and pedestrian areas in the Canal Corridor (QE, 2021) 142
Figure 3-57. Bicycle racks at the bottom of the ramp and stairs adjacent to the Capital Crescent Trail (QE, 2021) 142
Figure 3-58. The strong visual and circulatory connection between Fletcher's Boathouse and Fletcher's Cove (QE, 2021) 147
Figure 3-59. Signage directs vehicular traffic through the parking loop (QE, 2021) 148
Figure 3-60. The maintenance access road descends from the Capital Crescent Trail to the parking loop (QE, 2021) 149
Figure 3-61. View from Fletcher's Cove boat docks across to the west bank of the Potomac (QE, 2021) 150
Figure 3-62. Parklike character of the picnic area along the Potomac River (QE, 2021) 151
Figure 3-63. Mown lawn and specimen shade trees in the picnic area looking north towards the boathouse (QE, 2021) 152
Figure 3-64. Riparian trees grow through the armored shoreline (QE, 2021) 153

Figure 3-65. Fletcher's Boathouse and refreshment stand (QE, 2021) 154
Figure 3-66. Historic flood lines marked on the southwest corner of the refreshment stand (QE, 2021) 155
Figure 3-67. Floating wooden boat docks and storage box in Fletcher's Cove (QE, 2021) 155
Figure 3-68. Concrete and wood vehicular bridge over the lower Maddox Branch culvert (QE, 2021) 155
Figure 3-69. Mr. Fletcher's wooden bench, facing the cove (QE, 2021) 157
Figure 3-70. Large ash piles under grills in the picnic area indicate heavy use (QE, 2021) 157
Figure 5-1. Endangered shortnose sturgeon (NOAA Fisheries, ND) 175
Figure 5-2. Bioretention basins can be planted with native vegetation to infiltrate stormwater and reduce runoff while retaining contributing open vegetation character (City of Lincoln, NE) 175
Figure 5-3. Bioretention basin detail section from Draft District of Columbia Stormwater Management Guidebook (DDOE, ND) 175
Figure 5-4. Contributing constructed water features in the overall study area (QE, 2022) 176
Figure 5-5. Circulation treatment guidelines for the overall study area (QE, 2022) 178
Figure 5-6. Vegetaion treatment guidelines for the overall study area (QE, 2022) 180
Figure 5-7. Example of a newly planted riparian buffer near Lititz, PA (Al Todd, 2014) 181
Figure 5-8. Fletcher's Boathouse (foreground) and Refreshment Stand (left) (QE, 2021) 182
Figure 5-9. The west and south facades of Fletcher's Boathouse, facing northeast (QE, 2021) 182
Figure 5-10. An example of signage hierarchy for Visitor Information Systems (NPS Uniguide, 2002) 183
Figure 5-11. Signage along the towpath near the Williamsport Visitor Center (visitmaryland.org, ND) 183
Figure 5-12. Treatment guidelines for potentially significant archeological sites (QE, 2022) 184
Figure 5-13. Concrete and stone remnants adjacent to the mill race (QE, 2021) 185
Figure 5-14. Potential stone lock remnants below Wasteweir 3 (QE, 2021) 185
Figure 5-15. Maintenance access road and overflow parking area proposed in EA Preferred Alternative (Not Recommended)

(NPS, 2019) 187
Figure 5-16. Historic photograph depicting the open character of the canal berm, facing south (LOC, 1909) 188
Figure 5-17. Spatial organization and views treatment guidelines for the Canal Corridor LCA (QE, 2022) 189
Figure 5-18. Existing vegetation surrounding the Abner Cloud House, facing east (QE, 2021) 190
Figure 5-19. Existing woody vegetation blocks sight triangles between the mainenance access to the Towpath and Capital Cresent Trails, facing west (QE, 2021) 190
Figure 5-20. Existing pedestrian and maintenance/emergency vehicle bridge is deteriorating and constructed of incompatible materials, facing north (QE, 2021) 191
Figure 5-21. Maddox Branch vehicular bridge and abutments, facing east (QE, 2021) 191

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Executive Summary

This document contains the Cultural Landscape Report (CLR) for Fletcher's Cove, a part of the Chesapeake & Ohio Canal National Historical Park (C&O Canal NHP). The CLR documents the site history, existing conditions documented in November, 2021, analysis and evaluation of landscape changes and historical significance, and treatment guidelines for the Fletcher's Cove study area. Guidelines for the cultural landscape establish a philosophy and framework to balance preservation of natural and cultural resources with changes to circulation related to visitor safety. The CLR builds upon previous planning documents and provides park professionals with the information necessary to preserve significant landscape features while improving the circulation safety.

Fletcher's Cove is a natural feature of the Potomac River that played a role in human cultures throughout history. Affected by tidal flows, the cove was a fertile fishing ground used by Indigenous Peoples beginning in 9500 BCE. In the eighteenth century, canals represented the future of commerce and transportation in the United States, and by the early nineteenth century, George Washington's Potomac Company constructed the Little Falls Skirting Canal, which terminated in Fletcher's Cove. Between 1828 and 1831, the C&O Canal was built, utilizing the Potomac Company's canal prism and extending it from Fletcher's Cove to Georgetown. The canal prism, towpath, and associated features are visible in the cultural landscape today and provide interpretive and recreational opportunities for park visitors. During the period of canal operation, Fletcher's Cove became a hub of commercial and residential activity. As early as the 1850s, the study area landscape was also utilized for recreation. Fletcher's Boathouse rented rowboats to fishermen and visitors. These uses persist today with over 600,000 visitors every year.

The cultural landscape requires care and management to protect resources and provide safe recreational opportunities. Thoughtful consideration of the cultural landscape provides a framework for future management that takes into consideration historic, ecological, interpretive, and recreational values. This report includes a narrative of landscape development, from geologic history through present day. Historic landscape conditions are compared with existing conditions, and an analysis of these differences forms the basis for identifying guidelines for treatment of the cultural landscape.

Treatment guidelines rehabilitate the cultural landscape to enhance visitor experience and safety, improve ecological health, and protect contributing landscape features. This report calls for the addition of ADA-accessible routes, as aligned with the 2013 *C&O Canal National Historical Park Foundation Document*, to improve access for all visitors. Included are guidelines to balance circulation improvements as recommended by the 2019 *Environmental Assessment* with the preservation of the historic character of the landscape. Guidelines address environmental resilience of the cultural landscape while preserving contributing features. The CLR supports a clear and cohesive signage and messaging program to improve interpretation at known historic features and additional investigation to determine the condition of potentially-significant features for further preservation and interpretation.

This CLR provides a vision for Fletcher's Cove that preserves the cultural landscape while enhancing it as a safe and engaging place for visitors to learn about the site's history and enjoy recreational activities associated with the C&O Canal and Potomac River.

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S. Michael Mitchell, Architectural Historian



Introduction

Title Page: A cyclist rides north through the study area on the Towpath Trail, facing south (QE, 2021)

Introduction

The purpose of this Cultural Landscape Report (CLR) is to investigate, document, evaluate, and provide treatment guidance for the physical landscape associated with Fletcher's Cove in Washington, DC. The study area comprises approximately 44 acres on federal land between Canal Road and the Potomac River. The study area is significant for its association with residential, recreational, industrial, and transportation purposes for the past 200 years.

This CLR provides park professionals with the information necessary to make decisions regarding protection and preservation of significant cultural landscape resources. Treatment guidelines are provided at a high level to provide broad guidance to inform future work and address long-term management of the landscape. In 2019, the park completed an Environmental Assessment considering alternative strategies for improving transportation into and throughout Fletcher's Cove. The proposed Fletcher's Cove Transportation Upgrade Project will provide more direct and safer transportation connections between Canal Road and the Fletcher's Boathouse, the Chesapeake and Ohio Canal towpath, and the Capital Crescent Trail.[1] This CLR informs continued park consultations as part of the Fletcher's Cove Transportation Upgrade Project and enhances visitor experience, interpretation, education, and protects resources for future generations.

The CLR is organized in two parts. Part 1 contains detailed documentation of the historic development of the landscape, evaluation of existing landscape conditions, and analysis of landscape integrity with identification of contributing features. Part 2 explains the selection of an appropriate landscape treatment approach based on the Secretary of the Interior's Standards for the Treatment of Historic Landscapes, Cultural Resource Management, and natural resource guidelines and best management practices. Part 2 provides recommendations for the treatment, management, and maintenance of cultural landscape resources that are consistent with the landscape's significance, condition, and use.

STUDY AREA BOUNDARIES AND DESCRIPTION

The study area encompasses a 44-acre parcel of the Chesapeake and Ohio Canal National Historical Park (C&O Canal NHP), located in Washington, DC. Fletcher's Cove is located approximately 3.5 miles north of the canal terminus in Georgetown along the Potomac River.

The C&O Canal NHP runs the length of the 184.5-mile towpath and associated canal infrastructures from Cumberland, Maryland to Georgetown, Washington, DC (Figure 1-1). The study area is owned by the National Park Service (NPS); Fletcher's Boathouse and docks are managed by Guest Services, LLC, under a concessions contract through Rock Creek Park, which also includes the Thompson Boat Center and Key Bridge Boathouse.

The cultural landscape at Fletcher's Cove includes historic buildings and structures, natural and built topography, and constructed water features, primarily the Chesapeake & Ohio (C&O) Canal. The landscape is a combination of successional woodland and open areas maintained as mown lawn for recreation. Remnants from past structures and uses such as milling, manufacturing, and transportation are a part of the historic landscape at Fletcher's Cove.

The Potomac River defines the western boundary of the study area, the northern boundary runs west to east approximately 850 feet north of Wasteweir 3, the eastern boundary is defined by the east side of Canal Road NW, and the southern boundary runs east to west just south of mile marker 3 on the Towpath Trail (Figure 1-2).

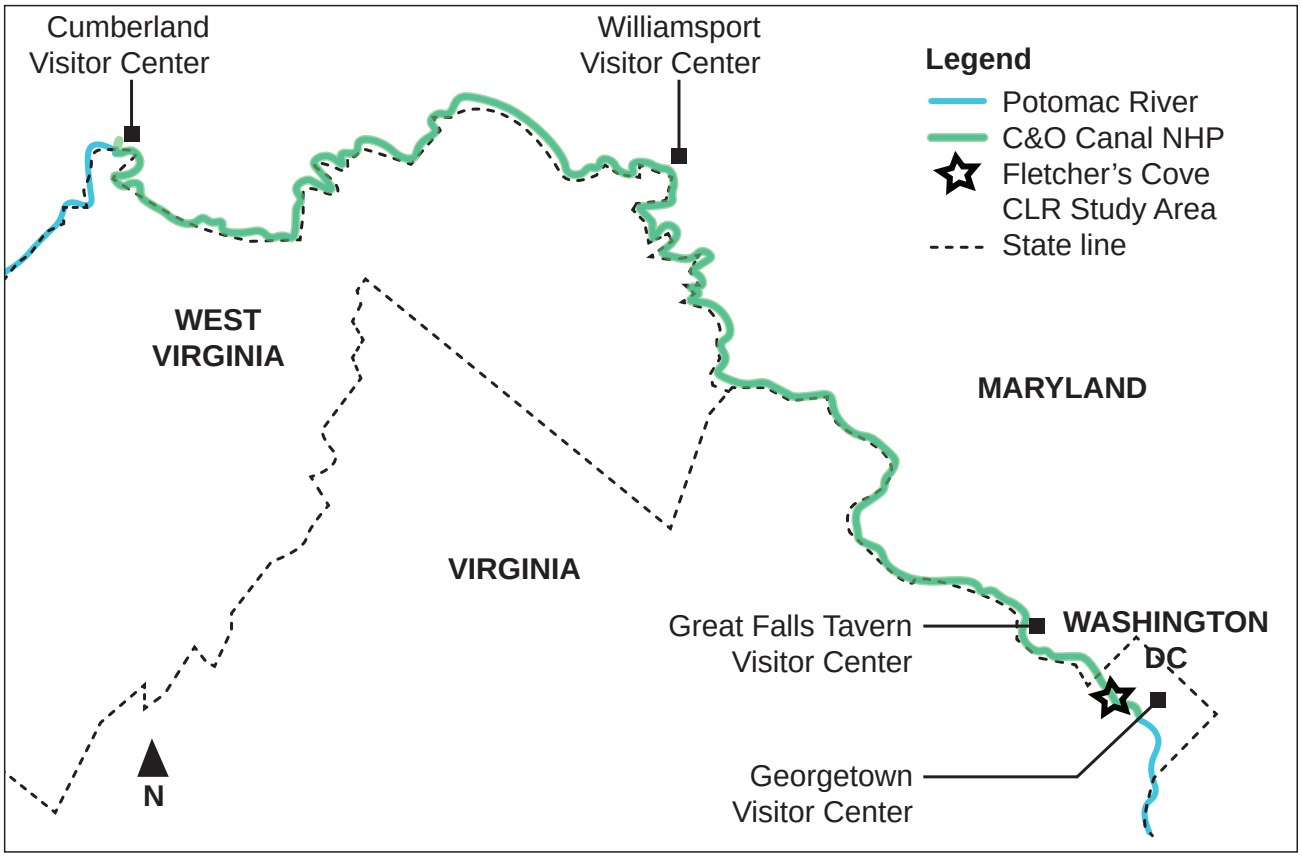


Figure 1-1. Regional context map, Not to Scale (NTS) (QE, 2022)

LANDSCAPE CHARACTER AREAS

Based on natural systems, circulation, and spatial organization at Fletcher's Cove, this report organizes the study area into two landscape character areas, the Canal Corridor LCA and Riverfront Recreation LCA, illustrated on Figure 1-2. These areas include primary circulation routes, passive and active recreation spaces, and features related to the interpretation of the site's cultural history. The North and South Woods flank the Riverfront Recreation LCA and are described as part of the overall study area.

Canal Corridor

The Canal Corridor LCA encompasses Canal Road NW, the C&O Canal and Towpath Trail, the Capital Crescent Trail, and includes the Abner Cloud House. The area is defined by the east side of Canal Road NW and the base of the berm constructed to support the canal prism and B&O Railroad bed.

Riverfront Recreation

The Riverfront Recreation LCA encompasses Fletcher's Boathouse and Cove, the picnic area, and parking loop, and includes Fletcher's boat dock and water access. The area is defined by the canal berm to the east, the Potomac Riverbank to the west, and the edge of the South Woods to the south. The north boundary is defined by Fletcher's Road to the point where it meets the cove edge, and then the boundary follows the north shore of the cove past the sluiceway.

North and South Woods

The North and South Woods are described as a part of the overall study area landscape. They include areas of primarily successional woodland and informal walking paths. Some historic remnants are located in the North Woods.

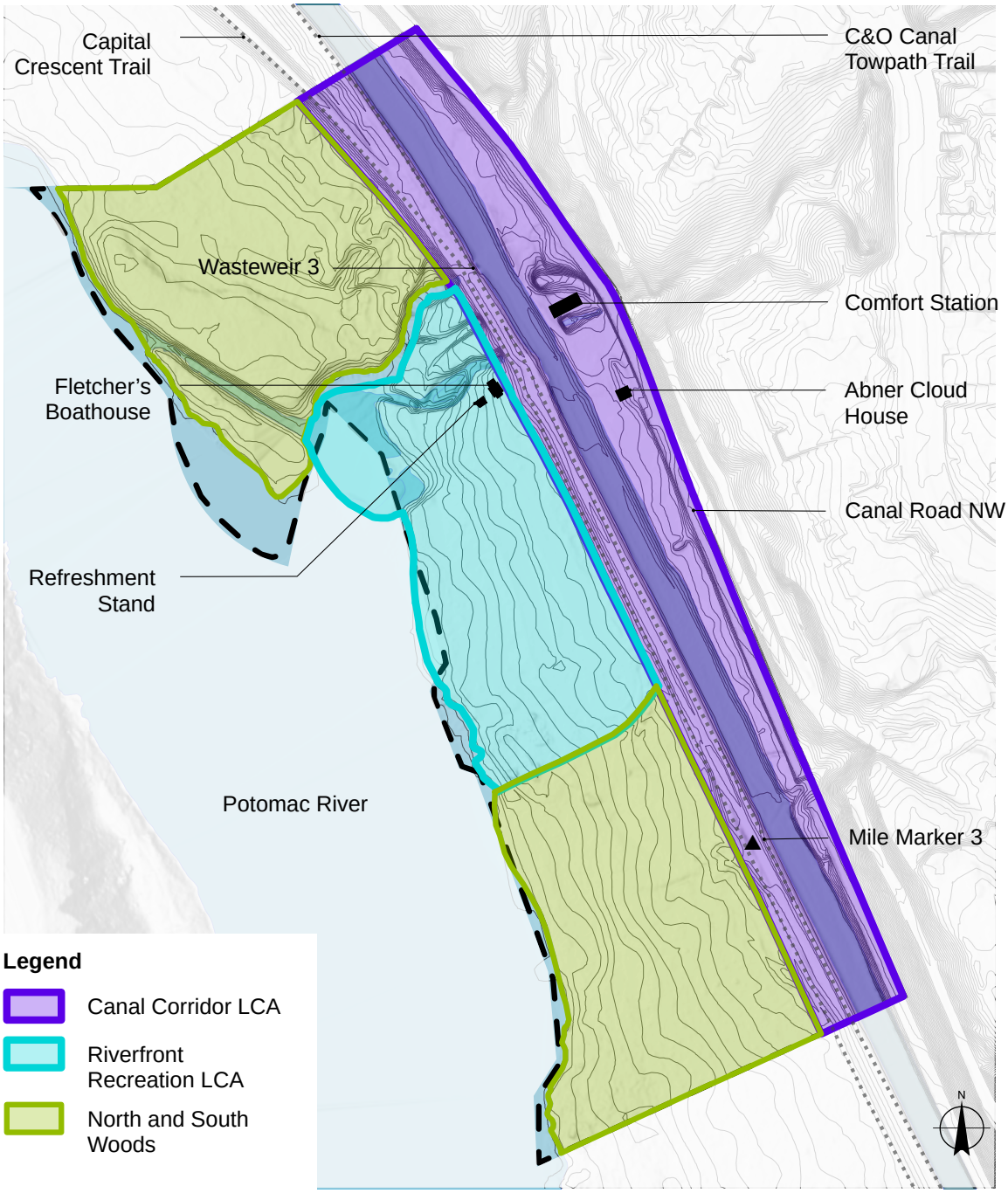


Figure 1-2. Landscape Character Areas (LCAs) used to describe the Fletcher's Cove cultural landscape, NTS (QE, 2022)

SUMMARY HISTORICAL OVERVIEW

The Potomac Company was established in 1784 under the leadership of George Washington with the mission to establish year-round transportation between Western Maryland and Washington. The Potomac Company's Little Falls Skirting Canal, completed in the early nineteenth century, once ended in the vicinity of Fletcher's Cove.

Some of the earliest known developments in the area include the construction of the extant 1801 Abner Cloud House and a contemporaneous, nonextant grist mill that later developed into an industrial complex for guano production. C&O Canal construction in the Fletcher's Cove area occurred between 1828 and 1831.

Fletcher's Cove has also been the focus of recreation since the late 1850s. The current boathouse and concession stand both date to the twentieth century. Fletcher's Cove is a popular destination for visitors, including fishermen. In 2021, the park hosted over five million recreational visitors with Fletcher's Cove experiencing a 150.5% increase in vehicle traffic.

Significance criteria and the period of signficance for the study area are explained at the beginning of Chapter 2.

RESPOSITORIES VISITED

In-person Research

- Chesapeake & Ohio Canal Park Archives, Williamsport, Maryland
- People's Archive, Martin Luther King, Jr., Memorial Library, Washington, DC

Online Research

- Library of Congress, Washington, DC
- National Archives and Records Administration, Washington, DC
- Historical Society of Washington, DC

RELATED DOCUMENTS AND PLANNING PROJECTS

This Cultural Landscape Report builds upon other planning precedents that address the landscape. Treatment guidelines are tiered from these existing planning documents:

- 2021 *DRAFT Chesapeake and Ohio Canal NHP Tribal Affiliation Study*
- 2020 *Fletcher's Cove Transportation Upgrades FONSI and MOA*
- 2020 *Ethnographic Study of Subsistence Fishing*
- 2019 *Fletcher's Boathouse Transportation Upgrades Environmental*

Assessment and Assessment of Effects

- 2013 *Foundation Document Chesapeake and Ohio Canal National Historical Park*
- 1979 *Chesapeake and Ohio Canal National Historical Park National Register Nomination [NRIS 66000036]*
- 2015 *Chesapeake and Ohio Canal National Historical Park (Additional Documentation and Boundary Increase, 2015) [NRIS 14001236]*
- *Chesapeake and Ohio Canal National Historical Park Climate Action Plan*
- *2007 Historic Resource Study: Cheseapeake & Ohio Canal*

PROJECT METHODOLOGY

This project follows a cultural landscape approach adhering to *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.[2]

NPS provided GIS data and lidar-derived elevation products (hillshade, contours) and standard GIS layers (roads, trails, vegetation cover, buildings, hydrology, etc.) for the Fletcher's Cove study area. This information was supplemented by additional data collected in the field in November 2021.

In November 2021, project team members arranged a kickoff meeting with park staff, conducted field investigations to ascertain site conditions, and met with park staff to discuss pertinent maintenance, natural resource, and cultural resource issues and concerns.

The site history was developed from documentation provided in the National Register Nomination 14001236. Landscape management, maintenance data, and supplemental research materials were provided by NPS staff.

REPORT CONTENTS

The CLR includes two parts. Part 1 of the report includes documentation of the cultural landscape's history, existing condition, and analysis of integrity. Part 2 of the report includes a treatment framework and treatment recommendations.

Part 1 of the report provides a foundation of historical documentation to serve as a basis for understanding the evolution of the historic landscape. Three historic period plans (1600 to 1825; 1826 to 1938; and 1939 to 1966) illustrate historic condition using consistent scales and graphic styles to allow for easy comparison of landscape condition from one period to the next.

The existing condition of the landscape was assessed using landscape characteristics to examine the study area as a whole, including natural systems and features, land use, spatial organization, topography, views, buildings and structures, circulation, archeological sites, and small scale features. Greater detail of existing conditions is provided for the two LCAs.

Part 2 of the Cultural Landscape Report begins with identification of a selected treatment approach, existing guidance, and identification of key landscape issues and concerns. The treatment chapter presents a vision statement and goals for future care and appearance of the landscape.

ENDNOTES

1 *Fletcher's Boathouse Transportation Upgrades Environmental Assessment* (Washington, DC: US Department of the Interior, National Park Service, 2019)

2 Robert R. Page, Cathy A. Gilbert, and Susan Dolan, *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* (Washington, DC: US Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, 1998); and Charles Birnbaum and Christine Capella Peters, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (Washington, DC: US Department of the Interior, National Park Service, 1996).



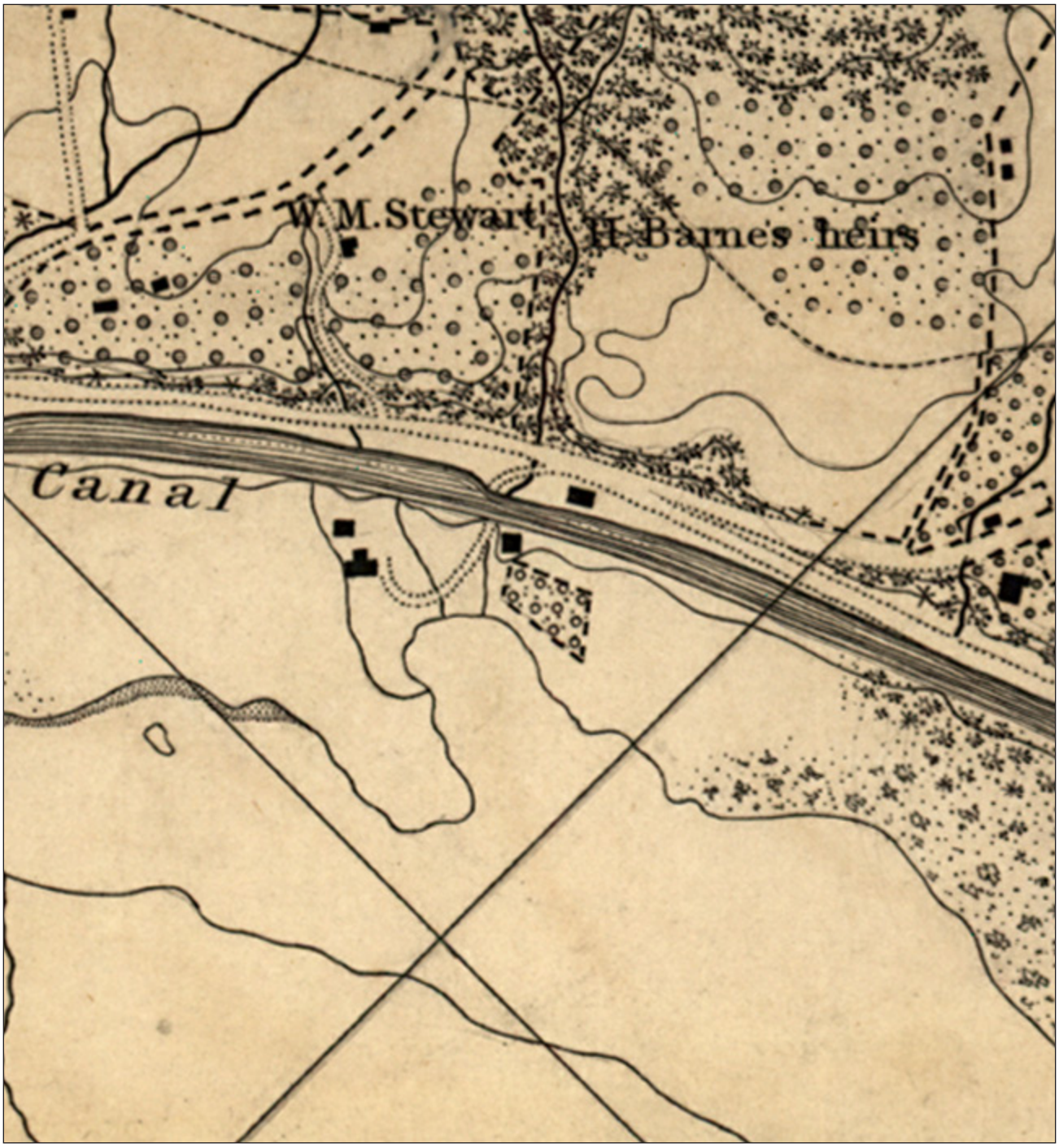
Part One

Site History ❖ *National Register Status* ❖

❖ *Existing Conditions & Analysis*

Cover Photo: Photograph showing the Abner Cloud House, C&O Canal, and towpath, looking southeast from towpath, 1909 (Library of Congress).

Title Page: Detail. A. Boschke, "Topographical Map of the District of Columbia," 1861 (Library of Congress).



CHAPTER 2: SITE HISTORY

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Site History

The Fletcher's Cove study area is an inlet along the Potomac River and a floodplain at the terminus of a small stream known as Maddox Branch, which extends southwest from the present-day Washington, DC, neighborhood of Tenleytown to the Potomac River. Running through the site is the former Chesapeake and Ohio (C&O) Canal, and at its northeastern edge is a busy road known as Canal Road NW. The site is at the base of steep bluffs, within the present-day Palisades neighborhood. The study area's physical development reflects its variety of uses over time, including residential, agricultural, industrial, transportation, and recreational. The Fletcher's Cove study area has been the location of the revolutionary wooden lift locks of the Potomac Company's Little Falls Skirting Canal, a mill complex, a working-class neighborhood, a site along the Chesapeake and Ohio Canal and a national historical park utilized for boating, cycling, walking, and running.

NATIONAL REGISTER STATUS & SIGNIFICANCE

The Fletcher's Cove study area was listed administratively in the National Register of Historic Places as part of the C&O Canal National Monument on October 15, 1966.

Since administrative listings did not originally include documentation, a National Register of Historic Places nomination was not prepared for the C&O Canal until 1979. The periods of significance for the canal were 1800–1899 and 1900– (nomination forms from this era listed significance in 100-year periods). In 2015, an updated National Register of Historic Places nomination was prepared with a boundary increase and additional documentation. A resource inventory included in the updated nomination combined newly identified contributing and noncontributing resources with those listed in the 1979 nomination.

Below is a summary of criteria, areas of significance, and the period of significance.

Summary of Significance

The C&O Canal was listed in the National Register of Historic Places under Criteria A, C, and D in the areas of Architecture, Commerce, Conservation, Engineering, Military, and Transportation. Fletcher's Cove is eligible for individual

listing in the National Register of Historic Places under Criteria A, C, and D in the areas of Commerce, Conservation, Transportation, Engineering, and Archeology. The period of significance is 1793 to 1966.

National Register Criteria for Evaluation

Criterion A—Commerce, 1793–1924

The Fletcher's Cove project area is significant under Criterion A at the national level in the area of Commerce as a site along two prominent canals that enhanced commercial activity on the Potomac River. As the location of the lift locks of the Potomac Company's Little Falls Skirting Canal, the Fletcher's Cove study area played a prominent role in the operations of the canal's commercial activities. In the early years after the establishment of Washington, DC, the skirting canal was part of a network of other such canals that contributed to the commercial development of the new capital city and neighboring Georgetown. The study area was also the location of buildings related to the operation of the canal, including a toll house and lock house. After the demise of the skirting canal, the study area was a site along the C&O Canal, where commercial boats passed between Georgetown in Washington, DC, and Cumberland, Maryland. Between 1828 and 1924, the canal was an important contributor to the commercial development of the capital city.

Criterion A—Transportation, 1793–1924

The Fletcher's Cove project area is significant under Criterion A at the national level in the area of Transportation as a site through which the Little Falls Skirting Canal and C&O Canal passed, beginning in 1793 with the construction of the Little Falls Skirting Canal and lasting until the demise of the C&O Canal in 1924. Constructed in the early 1790s, the Little Falls Skirting Canal, part of a network of skirting canals, extended from the Little Falls to present-day Fletcher's Cove. The C&O Canal was constructed from 1828 to 1850 and extended along the east bank of the Potomac River between Washington, DC, and Cumberland, Maryland. The canal served as a vital transportation route for the nascent economy of the capital city. The canal primarily transported coal from western Maryland to the port of Georgetown. The canal was constructed during a period historians have identified as the Canal Era (1800–1850) in the United States, an era in which the nation attempted to ease intra-continental transportation by building canals.

Criterion A—Conservation: Creation and Development of C&O Canal National Historical Park, 1938–1966

The Fletcher's Cove project area is nationally significant under Criterion A in the area of Conservation as part of the C&O Canal National Historical Park. The C&O Canal was acquired by the National Park Service in 1938, and efforts

were soon undertaken to preserve and commemorate features along the canal. Although the only extant building and structures on the site dating to the C&O Canal period are the Abner Cloud House and several culverts, the prism of the canal and towpath through the site is retained. Two New Deal-era Civilian Conservation Corps (CCC) camps comprised of African American enrollees completed work on the section of the canal in the Fletcher's Cove study area. The Mission 66 era initiated significant changes to the study area, as the NPS program refocused its conservation efforts through the lens of enhancing recreational use.

Criterion C—Engineering: Stone Locks

As the terminus of the Little Falls Skirting Canal, Fletcher's Cove was chosen as the site at which lift locks, designed to convey boats both into and out of the canal, would be constructed. Locks emerged in Europe in the late eighteenth century and were an important enhancement to the operation of canals. Historian Robert Kapsch writes that the wooden Little Falls locks were revolutionary for their time and some of the first constructed in the United States.[1] The wooden locks were removed and stone locks were installed in 1812. Remnants of the stone locks are located in the ravine below Wasteweir 3 within the Fletcher's Cove study area.

Criterion D—Archeology

Under Criterion D, the Fletcher's Cove study area possesses national significance in the area of Archeology: Historic, Non-Aboriginal for the data it has yielded. The site possesses significance under Criterion D at the local level for its demonstrated and potential ability to provide important information about the pre-contact occupation of the Washington, DC, region from the Early Archaic to Middle Woodland periods. The period of significance could be extended or revised based on pre-contact archeological findings.

Cultural Landscape Period of Significance

The period of significance for the cultural landscape extends from 1793 to 1966.

It achieved its primary significance in the period of 1793 to 1924, from the construction of the Little Falls Skirting Canal at the Fletcher's Cove study area to the demise of the C&O Canal. The landscape achieved additional significance in the 1930s due to the National Park Service acquisition of the study area in 1938 and work on this section of the canal by two CCC camps comprised of African American enrollees. Subsequent development of the park through the NPS Mission 66 era brought further significance to the cultural landscape.

The integrity of the cultural landscape is assessed in the Existing Conditions and Analysis chapter.

NARRATIVE SITE HISTORY

GEOMORPHOLOGY AND INDIGENOUS USE, BEFORE 1600 CE

The Fletcher's Cove study area is situated near the convergence of three distinct physiographic zones. The site is twelve miles below the Fall Line, a narrow zone defined by rapids and waterfalls between two other zones—the Piedmont Plateau and Atlantic Coastal Plains.[2] The Piedmont Plateau is known for hard igneous and metamorphic rocks and is characterized physically by rolling hills and large rocks.[3] By the end of the Jurassic period (201.3–145.0 MYA), an upland plain of crystalline rocks had tilted to the southeast and begun eroding over time.[4] The higher parts of that plain of decaying rocks became known as the Piedmont Plateau. The higher, western part of present-day Washington, DC, including the Palisades neighborhood, is situated on the Piedmont Plateau. The flatter, southeastern two-thirds of Washington is a part of the Coastal Plain province, which is sandy and gravelly compared to the rockier plateau.[5] Located at the base of the steep bluffs of the Piedmont Plateau, the Fletcher's Cove study area is approximately 43 feet above sea level.

Over the course of millions of years, the power of the Potomac River and the erosive nature of its flow ultimately shaped and reshaped the geomorphology of the site. The process that formed the current shoreline of the Potomac River, as well as the cove of present-day Fletcher's Cove, began approximately five million years ago in the Cenozoic period and continues to the present.[6]

The Fletcher's Cove study area may have been utilized by Indigenous groups known as the Nacotchtanks, also known as Necostins or Anacostins (Algonquins), and the Accokeeks. The Nacotchtanks settled at the mouth of the Anacostia River in what is now Maryland and on Analostan Island (now Theodore Roosevelt Island) near present-day Georgetown.[7] The Accokeek were an Indigenous group who lived on land in present-day northern Virginia and southern Maryland. Although the Nacotchtanks and Accokeeks do not survive as modern tribes, the Piscataway Conoy Tribe of southern Maryland and the Piscataway Indian Nation and Tayac Territory are among their living descendants.[8] The Piscataways trace their history in the region as far back as ten thousand years ago as a confederacy, which extended between the western shore of the Chesapeake Bay to the Potomac River and all land from the southern tip of St. Mary's County, Maryland, north to include Baltimore, Montgomery, and Anne Arundel counties to Washington, DC.[9]

The location of Fletcher's Cove at the mouth of Maddox Branch prompted frequent visitation to the site by the region's Indigenous peoples. Maddox Branch provided a convenient travel route through the nearby bluffs.[10] Evidence suggests the study area was used by people as early as the period referred to by archeologists as the Early Archaic period (9500–7500 BCE). The style of the lithic points found on the site reflect inhabitants' focus on hunting small, forest-adapted fauna such as white-tailed deer. Archeologists also argue that physical evidence suggests significant mobility for resource procurement along the Potomac River. Fragments identifying human habitation were also found on the site dating to the Late Archaic Period (3300–1400 BCE). During this period, large base camps, typically half an acre to five acres, were created near bodies of water for anadromous fish runs. However, it is not known whether a base camp was located in the Fletcher's Cove study area.[11] Evidence of Early Woodland (1000–200 BCE) use of the site was found by archeologists in the area around present-day Fletcher's Cove. Period hearth features found on the site are associated with the Accokeek peoples.[12]

Late Woodland (900–1650 CE) long-term storage pits and evidence of ceramic vessels found near the Fletcher's Cove study area suggest the site may have been used for more than just short-term habitation. This evidence suggests that food preparation occurred here. Additionally, archeological evidence suggests stone tools were made at the site.[13] Although the region around present-day Washington, DC, was home to several Indigenous communities, anthropologists have not assigned specific tribal affiliations to the groups that utilized the area during this period. Rather, information on early inhabitants of the region relies on the accounts of seventeenth-century European travelers.[14] Captain John Smith documented a settlement called Nacotchtanck, on the east side of the Anacostia, established by the Indigenous group of the same name.[15]

The romanticized stories of John Smith's voyages obscure the ravages brought by European explorers and settlers beginning in the seventeenth century. With European settlement in present-day Maryland and Virginia came the introduction of diseases, encroachment and forced removal, and the decimation of Indigenous traditions and culture.[16] Such European-driven forces extinguished Nacotchtank populations, forcing those surviving members to join the Piscataway people and lose their original identity and descendancy.

COLONIAL MARYLAND, THE LITTLE FALLS SKIRTING CANAL, AND "LOCK COVE," 1600–1825

The earliest documented European presence in the present-day Washington, DC, region was Captain John Smith and those who traveled with him on his 1608 voyage around the Chesapeake Bay. Smith's crew explored the Potomac River as far north as just beyond Great Falls to a point approximately near what is today called Blockhouse Point in Montgomery County, Maryland.[17] Following Smith's voyage, European settlers began arriving in the region in significant numbers. Encroachment onto Indigenous lands was aided by rapidly decreasing Indigenous populations.[18]

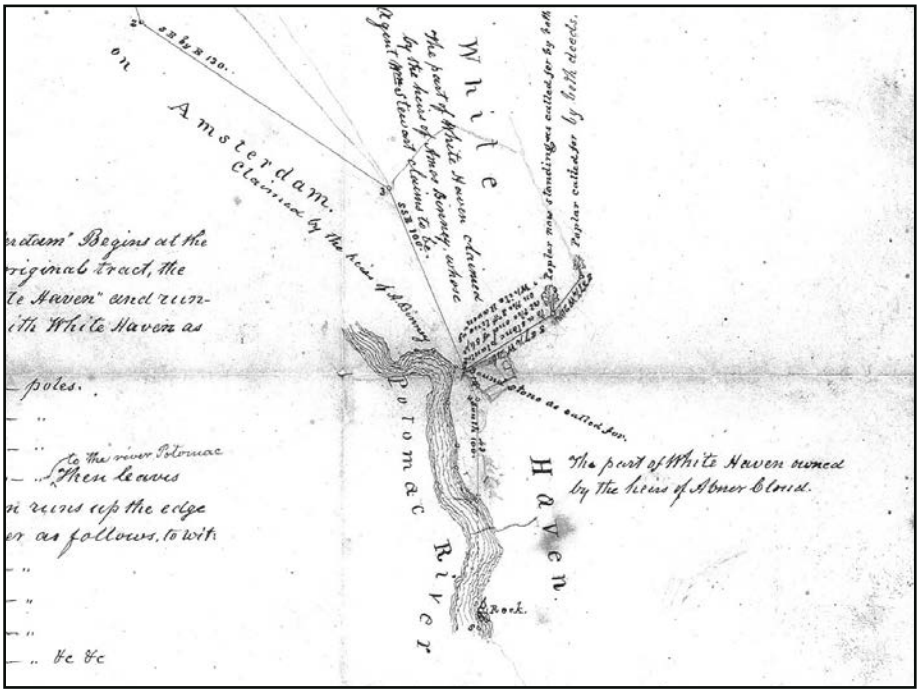


Figure 2-1. Plat map showing 1689 land grant for White Haven tract, ca. 1840s. The Fletcher's Cove study area is located approximately in the center of the map, at the upper end of the drawing, near the upper bend of the Potomac River depicted on the map (Collection of the Colonial Dames of America, Chapter III, Washington, DC)

As Indigenous populations significantly declined, Great Britain asserted control over the land encompassing present-day Maryland. In 1632, King Charles I gave to George Calvert, the first Lord Baltimore, the authority to establish the colony of Maryland and issue land grants. In 1689, the Fletcher's Cove study area was part of a land grant given to William Hutchinson and John Addison. Known as White Haven (or Whitehaven), the patent consisted of 759 acres, which stretched along the north bank of the Potomac River from the present-day Key Bridge to Chain Bridge Road (Figure 2-1).[19] Southeast of White Haven was another tract known as Amsterdam.

In 1765, John Ballendine purchased land in Amsterdam. He began construction of a canal somewhere on his new land in 1774.[20] As the river gained importance

in the nascent economy of the European settlements in Maryland, interest developed by the 1770s to find a more easily navigable path around Little Falls, an area of rapids northwest of the Fletcher's Cove study area. Ballendine's canal began at a "cove called the Riffles of the Potomac River, near High Island." Present-day Fletcher's Cove served as the lower terminus of Ballendine's canal. Ballendine, however, aborted the work on the canal after only a year of construction.[21] The Ballendine canal was never used for navigation.[22]

Ballendine's death in 1782 left the land to his son, Thomas William Ballendine, who sold his Amsterdam tract to Abner Cloud, Sr. (circa 1739–1795).[23] In 1784, Nicholas Way, Samuel Paxson, and Abner Cloud acquired a 150-acre tract known as Arrell's Folly, which was located northwest of Amsterdam and White Haven.[24] By the next year, they acquired a 37.25-acre part of White Haven.[25] Way, Paxson, and Cloud became partners in order to construct several mills using water power from Little Falls.[26] Research to date has not uncovered evidence of any mills being built in the Fletcher's Cove study area at this time. In 1789, Abner Cloud sold his land holdings to his son, Amos Cloud.[27]

In 1793, an organization known as the Potomac Company initiated the condemnation of land in the Fletcher's Cove study area for the purpose of building a skirting canal. The Potomac Company was established in 1785 for the purpose of improving navigation on the Potomac River. Work began on the canal in 1791, but land was still being obtained in some areas, such as the Fletcher's Cove study area, in 1793. Establishing the river as a commercial route was an important cause to the company's first president, George Washington. What was known as the Little Falls Skirting Canal or Little Falls Canal was one of five skirting canals constructed by the company for navigation around the Potomac River's impassable rapids, such as Little Falls. The Little Falls Skirting Canal was constructed over Ballendine's canal and, when completed, ran 2.17 miles.[28] Constructed 1791–1795, the canal extended from Little Falls to present-day Fletcher's Cove. Enslaved persons, approximately 60–100, comprised the majority of the builders who constructed the canal. The enslaved persons who built the canal were conscripted from nearby plantations.[29]

The land records of Montgomery County that document the land condemnation for the canal right-of-way note that the canal took a turn at a "place known by the name of Garrison Cove or lock harbor" (present-day Fletcher's Cove). Louis Berger Group argues in their 2008 archeological report that the name "Garrison Cove" referred to a fort (i.e., garrison) that belonged to a militia called the Potomac Rangers, who patrolled the countryside with help from Indigenous guides to fight off attacks by other Indigenous groups. Louis Berger

Group believes the fort was situated on a nearby hill, most likely the hill on the west side of present-day MacArthur Boulevard NW.[30] Historian Robert Kapsch also referred to the inlet as Woodward's Cove, but the source of his name is not known.[31]

The canal cut through the northwest third of the Fletcher's Cove study area. The terminus at present-day Fletcher's Cove (i.e., the turn mentioned in the land records) was the location of wooden lift locks constructed for the canal.[32] Locks were machines designed to lift boats a distance of 8–18 feet. The development of lift locks was a significant technological innovation in the eighteenth century.[33] Three 18 foot-wide wooden locks were constructed at the Little Falls Skirting Canal's terminus at present-day Fletcher's Cove (Figure 2-2).[34] They were among the first locks constructed in the United States. It is not known who designed the locks, but, according to Kapsch, the Potomac Company's records suggest a European engineer was responsible. Although no drawings survive of the Little Falls locks, according to Kapsch, the wooden locks designed by architect Benjamin Henry Latrobe for the Washington City Canal in 1810 were likely similar to those installed at present-day Fletcher's Cove. Latrobe's section drawings of the locks are a valuable resource for understanding the Little Falls locks (Figure 2-3 and Figure 2-4). Kapsch writes that because the Little Falls locks were revolutionary for their time and received a great deal of fanfare, Latrobe likely noticed them.[35] The Potomac Company's 1794 annual report noted that the wooden "frames of the Locks at the little Falls are put in, planked & walled up."[36] Builder Leonard Harbaugh led the group that constructed locks. The locks became so associated with this site that monikers such as "lock harbor" or "Lock Cove" were applied in late eighteenth- and early nineteenth-century documents.[37]

A diagram produced in 1816 shows the canal turn and locks as adjacent to a toll house (see next paragraph) (Figure 2-5). A detail of a site plan from 1802 for a proposed extension of the canal helps further place the location of the canal turn/locks by showing the toll house's location near present-day extant features, such as the Abner Cloud House (more on this house below) (Figure 2-6). The canal soon filled with sediment and debris and eventually had five sluice gates and two waste dams, intended to clear silt and debris from the canal.[38]

Constructed in 1793, the toll house was the first documented structure built in the Fletcher's Cove study area. Little is known about the building. William Roberts, who lived in the Abner Cloud House (see next paragraph) in the 1810s, mentioned that the toll house was part of the land condemned for the canal in 1793 and that it was "adjoining the first set of locks" (Figure 2-5 and Figure 2-6).[39] The 1816

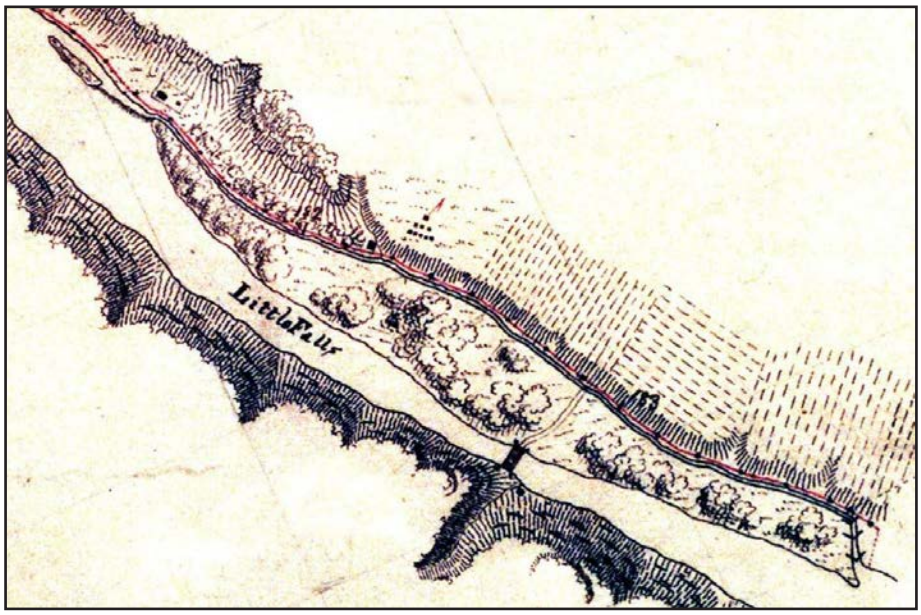


Figure 2-2. Drawing of wooden locks at the terminus of the Little Falls Skirting Canal at Lock (Fletcher's) Cove. The northwestern end of the Fletcher's Cove study area is situated at the lower right of the image. Drawing by James Geddes, 1827 (National Archives and Records Administration)

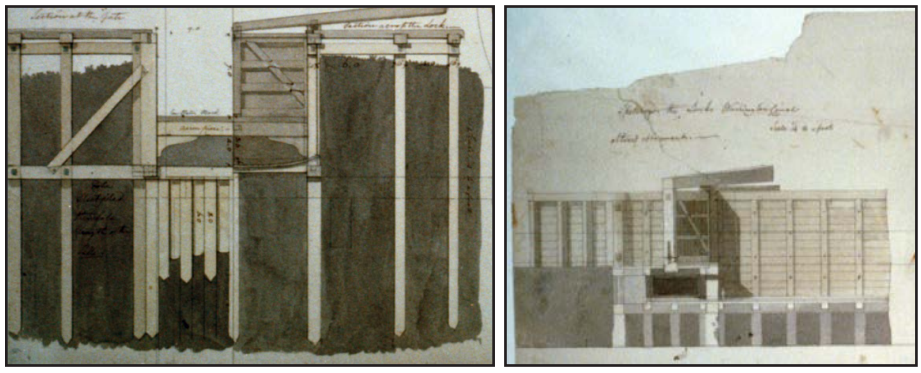


Figure 2-3. (left) Benjamin Henry Latrobe, section drawing, Washington City Canal, 1810 (Library of Congress)

Figure 2-4. (right) Benjamin Henry Latrobe, section drawing, Washington City Canal, 1810 (Library of Congress)

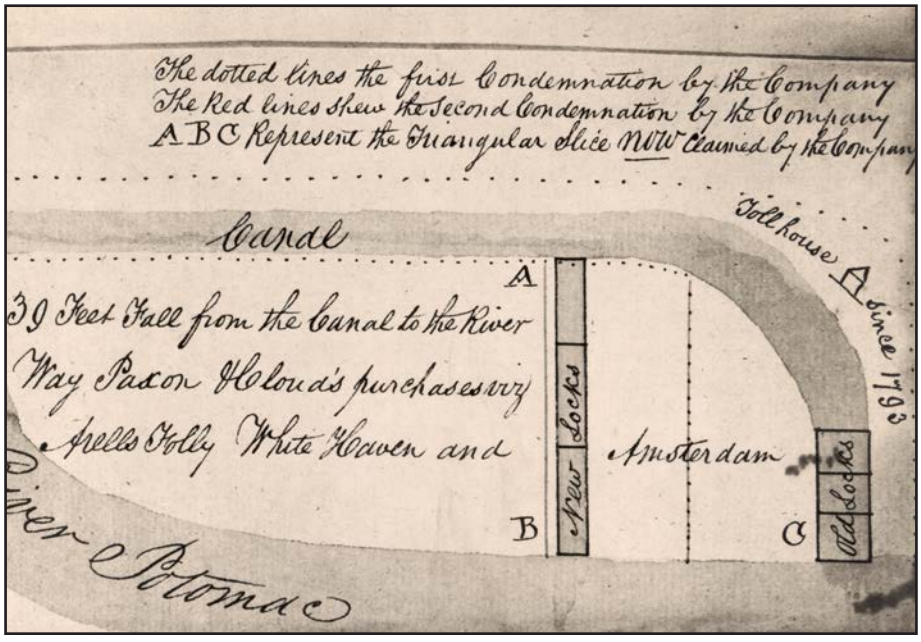


Figure 2-5. Diagram showing the locations of the old and new locks at Lock (Fletcher's) Cove, 1816 (Library of Congress)

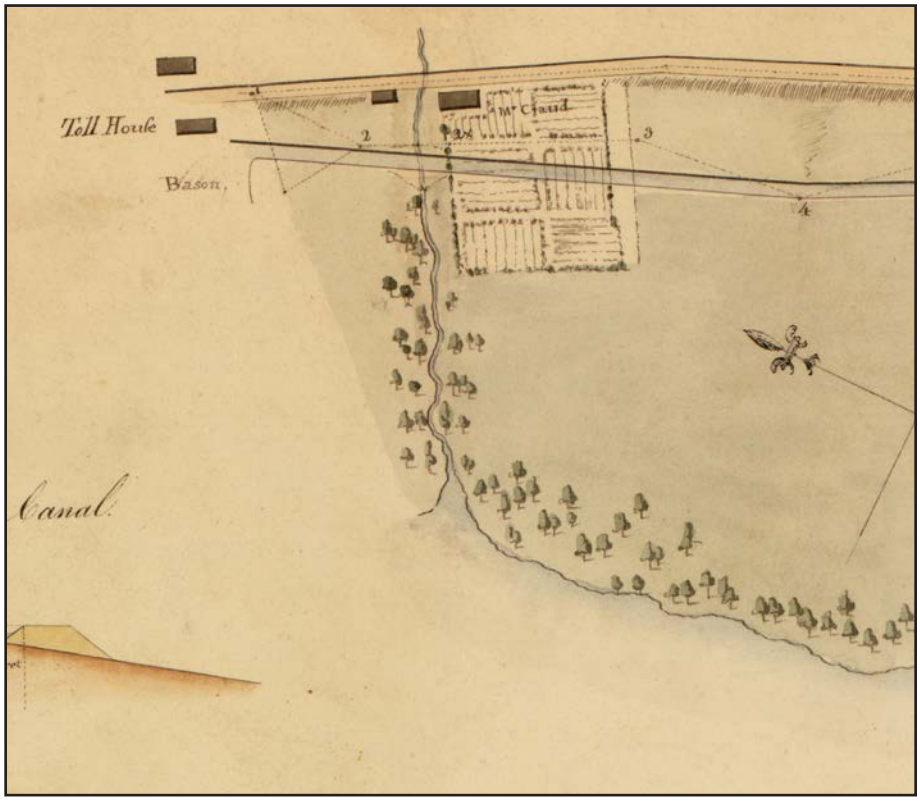


Figure 2-6. Detail of site plan. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress)

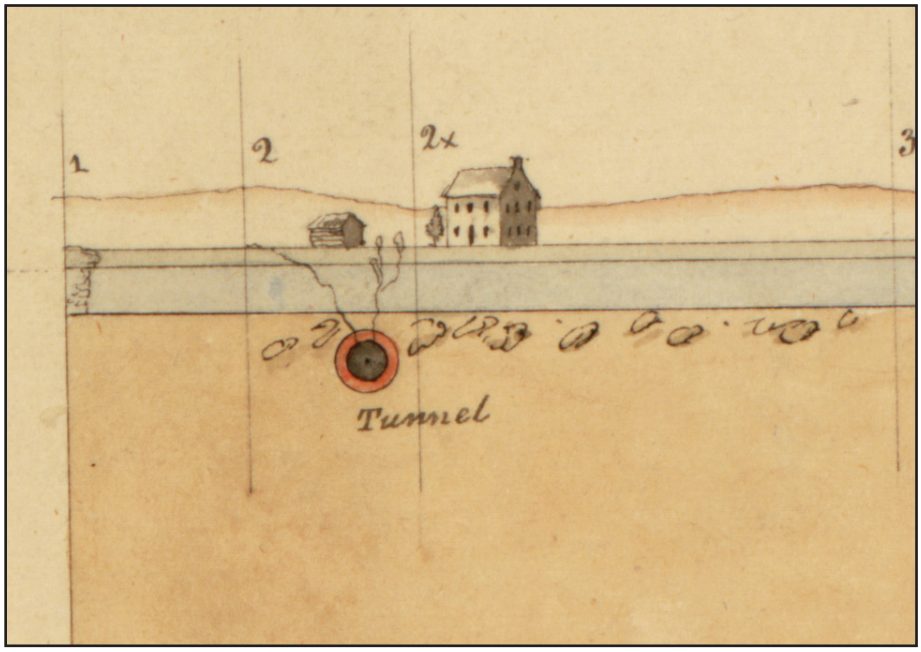


Figure 2-7. Section detail, from larger drawing. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress)

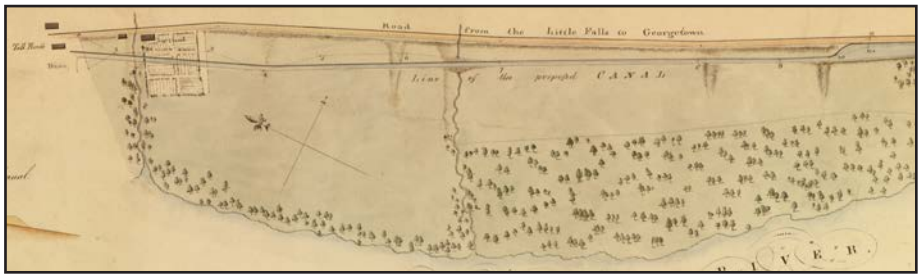


Figure 2-8. Full drawing. Benjamin Henry Latrobe and N. (Nicholas) King, "Plans and sections of the proposed continuation of the Washington Canal from Rock Creek to Little Falls of the Potomac, Washington DC," 1802 (Library of Congress)

diagram showed that it was on the southeastern side of the canal. Roberts noted in 1816 that the building at that time "has lately been repaired and enlarged."[40]

In October 1795, Abner Cloud, Jr., (1775–1812) received approximately 195 acres of White Haven for 5 shillings from his brother-in-law, Jesse Bailey.[41] In 1801, Cloud constructed a house southeast of the toll house and approximately 175 feet east of Maddox Branch (Figure 2-6). The Abner Cloud House was built into a sloped site. The house was comprised of three stories under a side-gable roof and had fieldstone walls and foundation. Its three-bay front façade featured an off-center front door in the southeasternmost bay. Decorative features included jack arches crowning the window openings. Fronting the house was what appears in an 1802 drawing by Benjamin Henry Latrobe and Nicholas King to be an agricultural field (Figure 2-6). An 1813 estate sale listing suggests the field may have been used for tobacco production.[42] This land may have been worked by enslaved persons, seven of whom were listed in the Cloud household in the 1800 census.[43] It is probable that smaller houses or structures for enslaved persons were located near the house. Livestock listed in the 1813 estate sale included sixteen hogs, eight horses, and five cows.[44] If the animals were on the property near his house, there may have also been a barn or some other structure that housed animals. A section drawing included with the 1802 site plan shows one structure in addition to the Abner Cloud House and toll house—an unidentified one-story structure northwest of Maddox Branch and the Cloud house (Figure 2-7). It is possible the structure was either a house or a barn.

A significant circulation feature of the Fletcher's Cove study area by this time was a road that ran parallel to the Potomac River. Another detail of the 1802 site plan shows the route, labeled "route from Little Falls to Georgetown," running northeast of the Abner Cloud House, toll house, and unknown structure (Figure 2-8). The road originated in 1795, when the Maryland legislature passed a petition to construct a road, "not exceeding sixty feet in width, from George-town to a bridge to be erected over the river Potowmack at or near the little falls."[45] The road was cut into the bluffs above the Fletcher's Cove study area. This road was renamed Canal Road by at least the 1850s.[46]

The 1802 drawing captures the southeastern two-thirds of the Fletcher's Cove study area in the late eighteenth and early nineteenth centuries (Figure 2-8). The drawing shows a largely wooded area on the Potomac shore with no recorded structures.

Beginning in 1812, the Potomac Company constructed new canal locks northwest of the earlier locks. The 1816 diagram documents the "new locks," as well as the

"old locks" to the southeast (Figure 2-5). As the old wooden locks had decayed by 1812, the company determined the new locks would be built in stone. In addition, the size of the old locks, at 18 feet wide, proved too wide, wasting water and lockage time. The new stone locks, 12 feet in width, were installed at a different site upstream so that the original locks could still be in operation and tolls could continue to be collected while the new locks were under construction.[47] New land was condemned northwest of the original locks, extending across land previously part of both the White Haven and Amsterdam tracts. Completed in 1818, the new locks were installed either in a newly excavated ravine or in an existing ravine, which ran northwest–southeast and emptied into the Potomac River.[48] The old locks were at some point removed. The installation of the new locks also required terminating the canal at an earlier point—the location of the new locks. Moving the canal terminus required filling the portion of the canal southeast of the new locks.

Abner Cloud, Jr., died in 1812, and his administrators sold off his estate the following year. By 1819, John Kilty Smith owned the land between Little Falls and the Abner Cloud House.[49] In 1820, Smith sold four acres to Leonard Johns, pursuant to an agreement between Smith and the Potomac Company that a mill be constructed on the land. The tract "being for one mill site" was described as "all that piece or parcel of land commencing at a stone near the new [L]ocks."[50] The easternmost edge of the tract began at the western edge of the condemnation for the "new" locks. An individual named George Johnson further confirmed Leonard Johns as responsible for the construction of the mill "near the Potomac Company's old locks."[51] The desire to build a mill at this site was primarily due to its proximity to the canal, which provided the necessary water power.[52]

By December 1821, the *Daily National Intelligencer* noted that Johns had "commenced grading" at the mill he had recently built at this site. The newspaper article mentions that Johns' Mill was "within a few yards of the [L]ocks of the Potomac Company" and that it was "on a [C]anal eighteen feet wide and four feet deep, parallel to that of the Potomac Company."[53] The identity of the other canal is not known, but it is possible the newspaper was referring to the mill race as a canal. The mill building was constructed of stone and comprised of three stories, northeast of the "new" locks. An 1835 *Daily National Intelligencer* article described Johns' Mill as 30 feet by 40 feet and noted that it "has two twelve feet overshot wheels, runs two pair six feet burs, has all the requisite machinery complete, and is capable of manufacturing 60 barrels of [F]lour per diem."[54] An 1828 map by H.W. Brewer shows a mill race (believed to be the tailrace) extending southwest from the mill building and curving southeast to empty into the cove.

The headrace is depicted as extending briefly northeast and then taking a hard turn northwest (Figure 2-9).

The location of the mill and its proprietor has long been a source of debate. In the early twentieth century, ruins of a stone structure near the mill site (southeast of the "new" locks/ravine) were determined to have been part of the mill building itself. Allen C. Clark's 1930 article "The Old Mills" was an important source of a narrative that developed attributing the mill to Abner Cloud—that he built and operated the mill and that the stone ruins were the remains of Leonard Johns' original mill building. Clark included a photograph of the stone ruins with a caption that read "Cloud-Edes Mill" (the latter name a reference to subsequent owner). Clark based his information about Cloud's involvement and the mill's location on an *Evening Star* article from September 21, 1869.[55] This narrative of Cloud's association with the mill was repeated in several secondary histories related to the Fletcher's Cove study area, including an undated information sheet on the Abner Cloud House and a National Park Service interpretive marker near the stone ruins mistakenly believed to have been the mill building.

Historian Catherine D. Ball has worked to correct this incorrect narrative of the mill's origins. Ball explains that there is no primary evidence Cloud was ever associated with the mill. The NPS marker states that Abner Cloud's widow Susanna Cloud operated the mill until her death in 1852. However, as Ball points out, no primary sources affirm Susanna Cloud's involvement with the mill. In fact, she remarried in 1814 and died in 1817, not 1852.[56] In addition to the 1869 article, another key source of this misinformation, Ball argues, was the writings of Washington, DC, lawyer Hugh Taggart. Taggart presented a variation of this

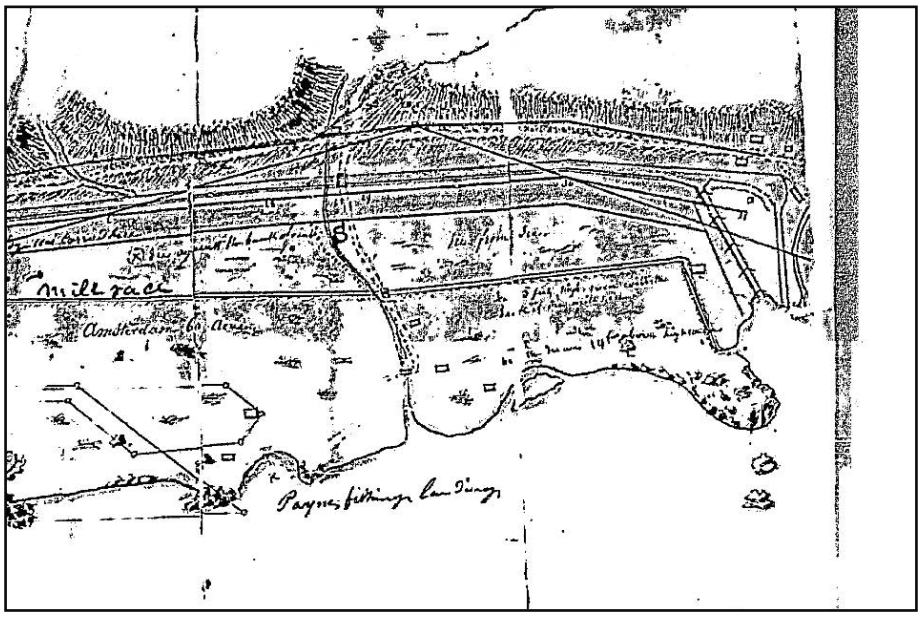


Figure 2-9. Map of Little Falls Skirting Canal. The map shows the paths of the mill races and the old and new locks. H.W. Brewer, 1828 (National Park Service)

narrative in his article "Old Georgetown," published by the Columbia Historical Society (now Historical Society of Washington, DC). Taggart, however, attributed the mill and Abner Cloud House to Amos Cloud, another critical error.[57] Leonard Johns had the mill constructed but, in 1824, sold the four-acre tract to John Lyons.[58]

Some sources have also suggested the ravine that fed the "new" locks was the body of water that fed the mill.[59] However, as discussed further in this section, historic maps clearly show mill races, northwest of the ravine, as the true water sources of the mill.[60] Moreover, the "new" locks were 12 feet wide, and the 1821 *Daily National Intelligencer* article noted the body of water that fed the mill, which the article labeled a canal that paralleled the Little Falls Skirting Canal, as 18 feet wide.[61] Therefore, the mill could not have been fed by the ravine that led to the "new" locks.

In addition to the mill building, Abner Cloud House, toll house, and the unidentified one-story structure northwest of Maddox Branch, other structures were documented within the Fletcher's Cove study area. A lock house dating to at least 1820 was located near the "new" locks, "immediately on the canal" and "near the stone mill built by Leonard H. Johns," according to the testimonies of former canal workers charged with overseeing the locks.[62] These workers, Jacob Payne, Edward McNerhany, and Luke Flanagan, lived in the lock house at different times. The lock house was built for the Little Falls Skirting Canal and continued in operation for the C&O Canal (see next section).[63] The lock house's specific location and the date it was demolished are not known.

By 1832, a frame house was built "near to and adjoining" Johns' Mill. An individual named Zachariah Green mentioned in an 1836 testimony having lived in a small frame house "on the river-shore below the mill" near the Potomac Company's (by this point, former) locks. [64] It is possible the house was on the site before 1826.

Green's house was indicative of the changing nature of the area around Johns' Mill. Although maps from this period do not indicate these residences, accounts such as those by Green and others place the residential structures near the mill. Those maps that do show such houses date from the mid-late nineteenth and early twentieth centuries and present inconsistent information as to their number and location (see next section). These maps are mostly consistent in locating a number of residences northwest of the Abner Cloud House. The area had been sparsely populated before the 1800s, in the era of large land tracts. By the 1820s, a working-class neighborhood seems to have developed around the Abner Cloud House and

Johns' Mill. In Green's 1836 testimony, he noted the mill employed "ten to twelve coopers, three to four millers, and four to five boatmen" who lived on land on or adjacent to the mill site.

The Fletcher's Cove study area was primarily used during this period for transportation along the canal, industry, fishing, residences, and agriculture. A sale advertisement by the heirs of Abner Cloud, Jr., explains that the Fletcher's Cove study area had several advantages, including "fish stands, and a shad and herring fishery."[65] The location of these structures is not known.

The Potomac Company's canals were not as productive or effective as intended. The company's canal and lock system only worked during the river's periodic high-water stages. By 1819, the company went bankrupt.[66]

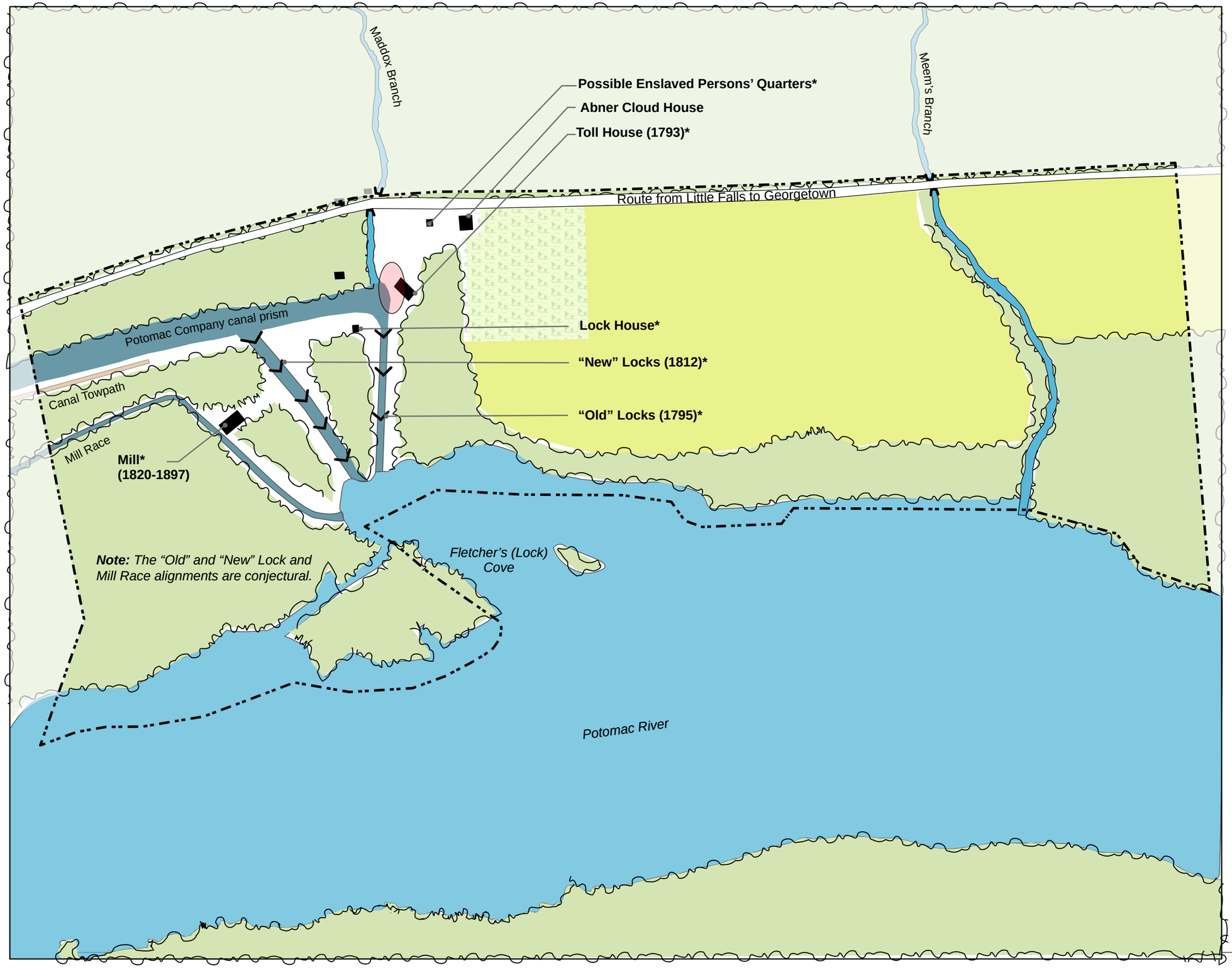
Landscape conditions circa 1825 are illustrated on Historic Period Plan 1, HPP-1.

LANDSCAPE CONDITION, 1600–1825

The overall study area landscape circa 1825 was strongly defined by the site's natural systems and features: the Potomac River to the west and the steep slopes of the Piedmont Plateau to the east. The Maddox and Meem's Branches flowed east to west across the study area. The natural topography of the study area was mostly flat to gently sloped in the Potomac River floodplain. Land uses included transportation via the Potomac Company canal and Canal Road NW (known at the time as the "route from Little Falls to Georgetown"), commerce centered around the Toll House and Johns', later Edes', Mill, and agricultural use associated with the Abner Cloud House and enslaved persons who lived and worked on site. The study area was organized around residential and commercial development centered around the Potomac Company canal. Constructed water features included the canal prism and the channels associated with the "old"and "new" locks and the Mill Race. Primary circulation routes included the Potomac River, canal and towpath, and the route from Little Falls to Georgetown. Secondary circulation routes between these areas, especially between the road, Abner Cloud House, Toll House, and canal, were likely but not documented on maps from the time. Vegetation was a mix of woods and pasture or agricultural fields. The area surrounding the canal was mostly wooded, except for areas immediately adjacent to the mill, Potomac Company canal, and towpath. Views to Fletcher's Cove and the Potomac River were accessible where the lock channels cut through riparian forest, including near the Toll House.

Chesapeake and Ohio Canal National Historical Park

Fletcher's Cove
Colonial Maryland, 1600-1825



Legend

- Study Area Boundary
- Roads
- Towpath
- Canal / Constructed Waterway
- Stream or River
- Building
- Locks
- Culvert
- Wooded Area
- Agricultural Field
- Pasture
- Circulation Area*

Notes

1. Building locations determined by historic maps, documents, and relationships to known existing features including topography and waterways.
2. Unconfirmed building and feature/structure locations are noted with an * asterisk and placed on the map in the general location where they were historically.
3. "New" Lock channel location sourced from 1907 D.C. Surveyor's Map.
4. Shoreline sourced from 1927 Aerial Imagery.

Sources

1. Road and building data from National Park Service, DC Geodatabase, 2021.
2. 1802, "No. 1 of Plans and Sections of the Proposed Continuation of the Canal at the LIttle Falls of Potomak and the Navy Yard in the City of Washington" LOC, Maps and Charts, 7024
3. 1825, J.J. Abert's Map, National Archives
4. 1828, Brewer's Map, DC Surveyor's Office, File Copy-NCP 110-79, 412/11079
5. 1816, New and Old Locks, from: "A Statement of Facts," Wm. Roberts, Georgetown, WA Rind & Co.
6. 1907, D.C. Surveyor's Map, National Park Service.
7. 1927 Aerial Imagery, National Archive from NCR.

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1 inch = 200 feet

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INDUSTRIAL, RESIDENTIAL, AND EARLY RECREATIONAL USE AND THE C&O CANAL, 1826–1938

The failure of the Potomac Company's canals did not negate the need for a canal along the Potomac River. This need was concurrent with the increasing interest in an effective trade route between the headwaters of the Ohio River in Pennsylvania and the Chesapeake Bay. What became known as the Chesapeake and Ohio Canal was chartered in 1825 to accomplish this goal. Rather than the system of skirting canals implemented by the Potomac Company, the C&O Canal planners designed a single route paralleling the path of the Potomac River.[67]

The canal was constructed between 1828 and 1850, running from Georgetown, Washington, DC, to Cumberland, Maryland.[68] The canal, however, was not a continuous structure, as it included two stretches known as slackwater, where canal boats were pulled out into the Potomac River. Cost overruns and difficulties building the canal through rocky terrain caused significant delays to construction and, as a result, the canal never reached the Ohio River. Furthermore, by 1850, the growing dominance of the railroad as a transportation method for people and goods rendered many canals obsolete.[69] Nevertheless, the canal remained active until 1924.

The new canal significantly reshaped the landscape of the Fletcher's Cove study area. H.W. Brewer's 1828 map shows the arrangement of the site just prior to construction of the new canal (Figure 2-9). By 1830, the section of the canal from Seneca, Maryland, to Lock Cove (i.e., Fletcher's Cove) was completed. By the following year, the canal reached Georgetown.[70] At least the lower half-mile of the Little Falls Skirting Canal, including the section that ran through the Fletcher's Cove study area, was repurposed as part of the C&O Canal.[71] What remained of the old canal was at this time extended, near the site of the circa-1793 toll house, to travel southeast toward Georgetown. Brewer's map captures the location of the toll house, still on the site in 1828, then at the terminus of the Little Falls Skirting Canal. However, as the toll's house location on the map indicates, the building of the C&O Canal through the Fletcher's Cove study area, completed by 1830, required demolition of the toll house. Further, the canal cut through the agricultural plot fronting the Abner Cloud House, as depicted in the 1802 drawing (Figure 2-6). The new canal's path likely rendered the locks at the site useless.

Other landscape changes the canal brought to the Fletcher's Cove study area included altered pedestrian circulation and the introduction of new small-scale built features. As the Little Falls Skirting Canal terminated at the locks (old and new), the mill site could have been accessed by a path from the southeast, beyond the canal terminus. With the new canal cutting completely through the site, a

path to bypass the canal was necessary. To solve this problem, a masonry culvert, 14 feet in width and covered by an arch with a rise of 9.5 feet, was constructed under the canal in 1831.[72] In addition, a new path was established, from the "route from Little Falls to Georgetown" (i.e., Canal Road) shown on the 1802 map to the mill site. The route is captured on a detail of an 1872 map (although it appears in lesser detail on maps as early as 1861) (Figure 2-10). The 1872 map shows the path beginning at the "route from Little Falls to Georgetown," taking a sharp turn down a ramp and running northwest parallel to the road, curving to the southwest to travel through the road culvert under the canal, extending over a bridge covering the ravine (and the location of "new" locks), continuing to the southwest below the mill, and crossing a bridge over the mill tailrace. By the mid-twentieth century, stone pavers covered the ramp portion of the path.[73] It is not clear when the pavers were installed or how long they were extant. This path at some point became known as Fletcher's Road.

In the 1830s–40s, the Fletcher's Cove study area continued to serve functions established earlier in the century: industrial, transportation, residential, agricultural, and fishing. Although the agricultural plot fronting the Abner Cloud House was significantly disrupted, a map from 1861 depicts what appears to be an agricultural field southeast of the mill site and southwest of the Abner Cloud House and the C&O Canal (Figure 2-11).

The same map also captures a small structure adjacent to the agricultural field. By the 1870s, the house belonged to an individual named "Miss Stuart," according to the 1878 Hopkins map. As previously mentioned, the Potomac Company's lock house on the Fletcher's Cove study area was still in operation for the C&O Canal as late as 1836, but its location is not known. The 1828 Brewer map shows three additional structures northwest of the Abner Cloud House and one structure on the other side of the Little Falls Skirting Canal terminus from the toll house (Figure 2-9). However, the southeastern-most of these structures was perhaps the one-story structure from the 1802 drawing. As previously mentioned, the frame house "near to and adjoining" Leonard Johns' mill was extant until at least 1832.

In 1851, Leonard Johns' 1821 mill, then operating as a grist and flour mill, was acquired by William A. Edes. The mill changed hands several times over subsequent decades, but at some point acquired the moniker "Edes' Mill." Alternatively, the mill was also referred to as "Canal Mills" or "Lock Mill," the latter a reference, again, to the nearby canal locks.[74] An *Evening Star* article from 1887 referred to the mill as "Morgan's mill," although the source of this name is not known.[75] By 1868, the mill building had been expanded to four stories and 51 feet by 75 feet in dimensions.[76] The 1861 map shows a structure north of the



Figure 2-10. Detail. Board for the Improvement of the Harbors of Washington and Georgetown, DC, "Map of the Potomac River from Georgetown to the Foot of Little Falls," 1872 (Library of Congress)

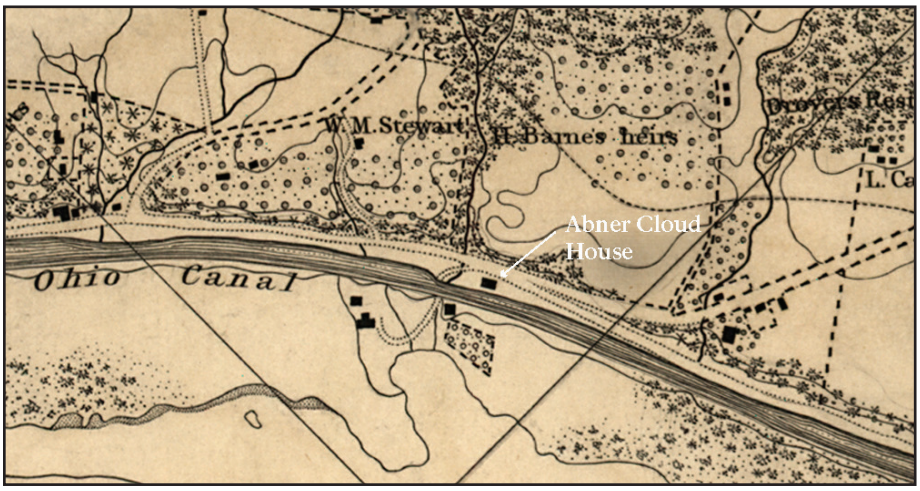


Figure 2-11. Detail. A. Boschke, "Topographical Map of the District of Columbia," 1861 (Library of Congress)

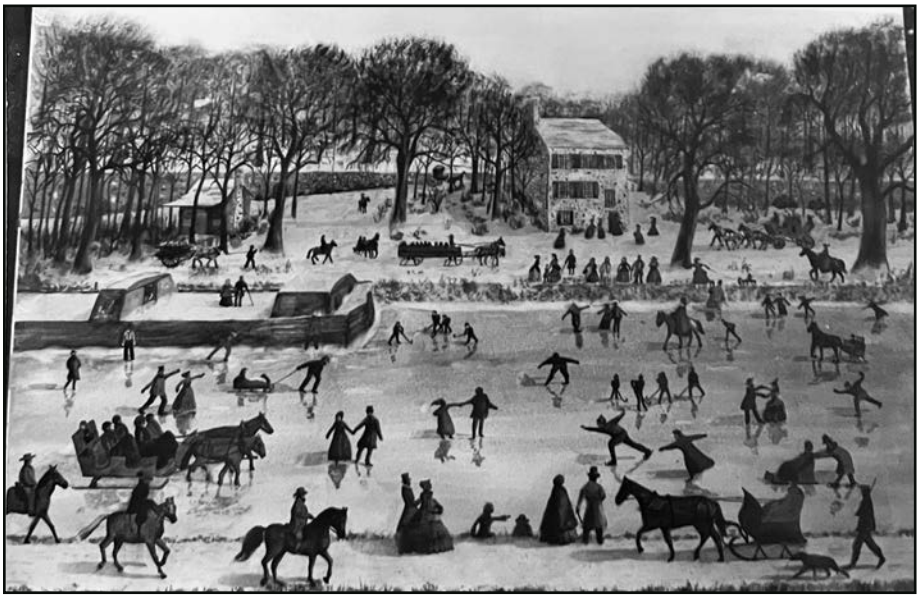


Figure 2-12. Earl Minderman, "Skating at the Abner Cloud House," 1981. Minderman's painting was the artist's vision of how the area around the Abner Cloud House might have appeared in the ninteeenth century (Thomas Hahn Collection, George Washington University)



Figure 2-13. Detail. Griffith Morgan Hopkins, Jr., "Atlas of fifteen miles around Washington, including the County of Prince George, Maryland / compiled, drawn, and published from actual surveys by G. M. Hopkins," 1878 (Library of Congress)



Figure 2-14. Photograph of a building associated with the Fletcher's Boathouse business, 1912. This building was described as being located near the intersection of Canal Road and New Cut (now Reservoir) Road (*Evening Star*, April 21, 1912)

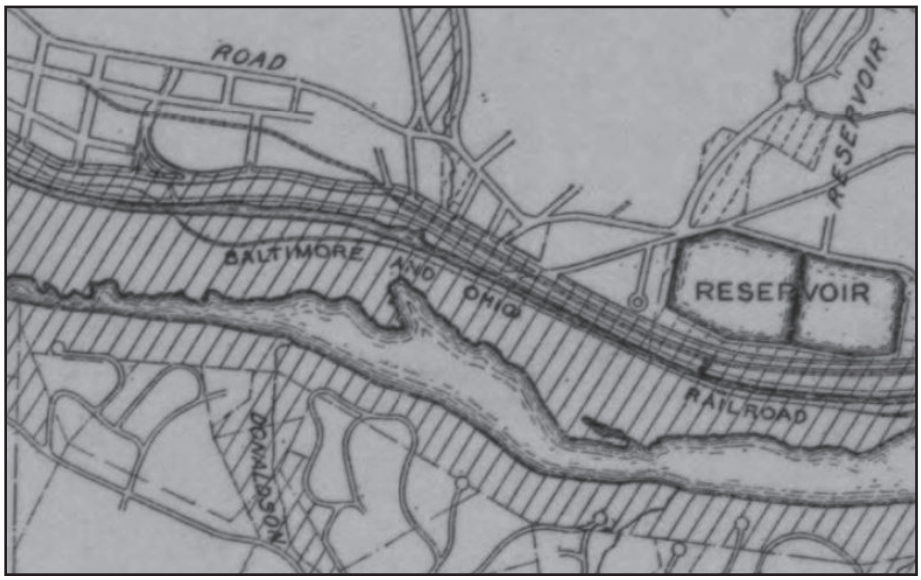


Figure 2-15. Detail of map showing the Georgetown Branch spur of the Baltimore & Ohio Railroad. "Upper Potomac Park Project to Preserve the Great Falls and Palisades of the Potomac," 1927 (Library of Congress)

mill building. The figure also provides a valuable resource for understanding the vegetation on the site, showing pasture with patches of native woodland (Figure 2-11). The function of this north mill building is not known, but the map locates the building along the mill race, indicating it was part of the mill operations. At least three additional buildings were located in close proximity to the mill, presumably all functioning as part of mill operations (Figure 2-10).

The mid-nineteenth century brought changes to some of the smaller built features of the site. Circa 1850, a wasteweir (now known as Wasteweir 3) was constructed where the ravine met the canal. The 1872 map shows that a bridge was built over the wasteweir outlet channel (Figure 2-10). The wasteweir was constructed of stone, with dual openings closed by wicket gates.[77]

The mill headraces were reconfigured at least twice over the course of the mid-nineteenth century. The 1828 Brewer map and other maps from this era show the headrace in what is believed to be its original arrangement. The headrace was depicted extending from the mill building and taking a hard turn northwest (Figure 2-9). However, when the C&O Canal was constructed, the headrace was reconfigured.[78] An 1868 plat map shows the modified headrace extending north and then slightly northeast toward the canal. An 1872 map shows that additional changes had been made to the mill races by this time. The map shows the original, but reconfigured, headrace serving both the original mill building and the later building to the north. Near the north building the tailrace branches off and follows a path separate from the original tailrace to empty into the cove. In addition, by 1872, a second headrace is shown extending from the original mill building's north elevation to pass alongside the north building and terminate at the canal (Figure 2-10). The presence of a second headrace suggests the mill had two wheels.

Artist Earl Minderman's 1981 painting, part of a series on life on the C&O Canal, imagines how the area around the Abner Cloud House might have looked in the nineteenth century (Figure 2-12). A small cabin is depicted northwest of the Abner Cloud House. It is shown as comprising a single story, with a side-gable roof, shed porch, and a stone chimney. It is not known whether this cabin existed or was just a product of the artist's imagination. The cabin may be the structure Benjamin Henry Latrobe and Nicholas King depicted to the left of the Cloud House in their 1802 site plan (Figures 2-6 and 2-7). Although it was not depicted in this painting, a second-story porch was added to the Cloud House at some point in the mid-nineteenth century.

By at least the US Civil War era (1861–1865), a towpath running 184.5 miles was created parallel with the C&O Canal on the southwest edge of the canal and opposite the canal from the Abner Cloud House.[79] The towpath was a banked dirt trail. In 1872, a stone retaining wall was installed along Canal Road by builder John J. Shipman. That same year and into 1873, Shipman also constructed a culvert where the canal crossed Maddox Branch. The six-foot wide stone culvert at some point became known as Battery Kemble Culvert.[80]

Industrial use of the Fletcher's Cove study area increased in the second half of the nineteenth century. An 1878 map suggests a building southeast of the mill buildings was a guano factory (Figure 2-13). When the building was constructed and when the guano factory began and ceased operations is not known. In 1882, the Transparent Ice Company acquired the four-acre Edes' Mill tract. Which building of the mill complex (as shown on the 1872 map) was modified to accommodate the ice production process is not known. An 1895 *Washington Times* article suggests the building that housed Edes' Mill was repurposed as the ice factory.[81] Ice production required water, provided easily by the mill races. The 1892 map only shows two structures on the mill site—the original mill building and the structure to its north first documented in the 1861 map. Curiously, the structure that may have housed the guano factory is not depicted.

US census records from the 1850s–70s indicate the continued presence of a working-class neighborhood, particularly along Canal Road, northwest of the Abner Cloud House. The 1878 map shows a number of these houses (Figure 2-13). The 1850 census, for instance, lists the residents of these houses, including John Frizzell in the Abner Cloud House, as "laborers" or other various working-class professions. Edward Woody, identified in the census as a butcher, is depicted on the 1878 map three houses to the northwest of Frizzell.[82]

In addition to the fish stands and fishery previously mentioned, recreational use of the site was expanded when the Fletcher's Boathouse business was established at some point in the 1880s. The boathouse was described as being at the foot of New Cut Road (today's Reservoir Road NW) and Canal Road NW.[83] A 1912 photograph shows the boathouse as a two-story, side-gable dwelling (Figure 2-14). The exact original location of the boathouse is not known. The *Evening Star* noted in 1914, "On Sunday you will see scores of little boats on that part of the river, most of them motionless because their occupants are fishing."[84] At some point in the 1880s, Joseph Fletcher (1855–1909) established the boathouse business. Following his death in 1909, the business was operated by his son, George M. Fletcher (1890–1913). George died in 1913, and his mother, Annie

Fletcher, continued the business until her death in 1917.[85] Annie's son, Joseph C. Fletcher (1885–1950), maintained the business until his death in 1950.[86]

After the Edes' Mill building ceased operating as a mill, and perhaps as part of the ice factory, the original mill building was reportedly used as a residence.[87] By the 1890s, the Edes' Mill building, no longer in use, was in "dilapidated" condition. A newspaper article described it as "deserted and lying idle." In January 1897, the building was mostly destroyed by a fire.[88] The roof, floors, and other wood components of the building burned, while the stone components survived.[89] Various accounts of the ruins of Edes' Mill appeared in subsequent decades. The photograph Allen C. Clark included of the "Cloud-Edes Mill" shows a ruinous stone building. However, the building in the photograph is only two stories and seems to occupy a smaller footprint than the original mill building's footprint suggested by various maps from the period (Figure 2-16). It is possible that the ruin documented by Clark and others was a different building on the mill site. A similar photograph in the collection of the Historical Society of Washington, DC, again assigned this ruinous structure as the ruins of Edes' Mill (Figure 2-17).

Early twentieth-century photographs of the ruin typically show it overgrown with vegetation, situated in a heavily forested area. This condition is confirmed in a July 12, 1914, edition of the *Evening Star*. The article was written by the Rambler, the *nom de plume* of J. Harry Shannon, who authored a number of articles in the 1910s–20s on Washington and its vicinity. The Rambler offered the following description of his exploration of the abandoned site he believed housed Edes' Mill:

> *Though Eads' [sic] mill is nearly overgrown with sycamores—and these trees grow inside as well as outside the ruin of the mill—there is a small, meadow-like space or clearing, broken in numerous places by clumps of silver poplars…In this irregularly shaped clearing the Rambler saw within a few yards clumps of horse nettles, beds of the blue spring daisy or robin's plantain; little groves of sweet cicely, tangles of wild geranium or crane's bill, patches of yarrow or Achillea millefolium, one of the most common of the wayside weed, that, with the coarse, roughly-toothed leaves in whorls and that with the alternative, nearly opposite leaves…All around, deep blue and fragrant, was a riot of ground ivy or Gill-over-the-ground, that persistent little member of the mint family which grows around old houses… Nearby were white patches of chickweed, both the stellaria common, adored by canaries, and the giant chickweed…There were golden dashes splashed by buttercups…Among the grasses were bluegrass and red top, of course,*

in full flower, old man's beard grass or anthropogonia and varieties of the panicums.[90]

In addition to the "wild plants and flowers," the Rambler also noted the presence of a still-extant mill race.[91] The mill race was also captured in the 1892 US Coast and Geodetic Survey maps of the Potomac. The concentration of trees around the mill site is reinforced in the earliest known aerial photograph that captures the Fletcher's Cove study area, dating to 1922 (Figure 2-18). The photograph shows the rest of the study area as more open, in contrast to the cluster of trees around the mill site. This condition is particularly evident in the area southeast of the mill site. There were also few trees or little vegetation along the river or canal. The Rambler also provided the directions to the mill ruins that provide further details on the condition and arrangement of the site:

To reach this mill you will find boys at the old stone house on the Chain bridge road close to the point of the intersection of the New Cut road who will cull you across the canal in a batteau for 5 cents. Or there is a culvert under the canal, but in which you are apt, nay you are sure, to get your shoes muddy and perhaps your feet wet. After passing the canal you cross the cinter-topped way of the branch railroad which leads down to Georgetown. Then you pass down a steep decline and cross the ravine through which water flows with a gurling roar. It is a deep and shady ravine and there used to be a bridge across it, but the bridge is gone excepting one of its heavy decaying timbers. This has been laid across the chasm, and you walk the plank. Over the creek the narrow path leads through bushes and weeds and with a few steps you are in the open space about the mill.[92]

The description provides an important picture of the area near the mill in the early 1900s: overgrown and abandoned. In addition to the ruins he found on the site, he notes that the bridge across the ravine (the location of the "new" locks) was no longer extant, save one piece of timber.

Another transformational early twentieth-century addition to the Fletcher's Cove study area occurred with the construction of a branch of the Baltimore & Ohio Railroad. Baltimore merchants established the railroad in 1828 to accelerate direct transportation between their city and the Ohio River. The railroad sought to make Baltimore as competitive economically as New York and Philadelphia, which had gained access to western trade routes with the construction of the Erie Canal. A line to Washington, DC, was completed in the early 1830s. However, the railroad only ran east of the city at this time. In 1909, an eleven-mile spur known as the Georgetown Branch was opened, carrying coal and building materials to local



Figure 2-16. Photograph of ruinous structure mistakenly labeled the "Cloud-Edes Mill," 1930 (Allen C. Clark, "The Old Mills," *Records of the Columbia Historical Society, Washington, DC*)



Figure 2-17. Photograph of ruinous structure incorrectly believed to have been Edes' Mill, undated (Historical Society of Washington, DC)



Figure 2-18. Aerial photograph showing Fletcher's Cove site, 1922 (National Park Service)

outlets in Chevy Chase, Bethesda, and Georgetown (Figure 2-15).[93] The railroad branch traveled over the Arizona Avenue Railway Bridge, which was compeleted in 1906 and located approximately a half mile from the Abner Cloud House.[94] The Georgetown Branch carried the railroad through the Fletcher's Cove study area. The railroad's path through the Fletcher's Cove study area was parallel with the C&O Canal and the towpath.

Alterations to small-scale features occurred during the first two decades of the twentieth century. At some point in the early 1900s, concrete extensions were added both to the culvert over Fletcher's Road and the Battery Kemble Culvert when the railroad was built on the towpath side of the canal.[95]

In addition to commercial traffic, the C&O Canal also served recreational purposes. A 1909 photograph taken on the southwest bank of the canal, looking southeast toward the Abner Cloud House, shows recreational boating parties. A couple in the foreground of the photograph is shown stepping off of a boat and onto the towpath (Figure 2-19). The right side of another image shows the towpath against a backdrop comprised of the open area southeast of the mill site (Figure 2-18). The photograph captures an overall open state along the canal. Another feature shown in the image is what appears to be an unidentified outbuilding along the canal and northwest of the Abner Cloud House.

Use of the Fletcher's Cove study area shifted when the C&O Canal closed to commercial navigation in 1924, following flood damage in March of that year. In 1890, the B&O Railroad acquired a majority of 1878 repairs bonds on the canal, which did not negate the legal status of the 1848 mortgage. From 1890 to 1938, court-appointed trustees oversaw canal operation and repairs. No longer on an important commercial waterway, the Fletcher's Cove study area had a mostly recreational and residential function during this period.

By the late 1930s, the railroad, facing financial difficulties caused by the Great Depression, sought to sell the entire canal to the government. Because they did not have the legal authority to sell the canal and the canal company still existed as a legal entity, receivers were appointed in 1938 to allow for the sale. The money was applied to the railroad's debt to the federal Reconstruction Finance Corporation, a Depression-era agency.[96] Under federal ownership, the C&O Canal was overseen by the National Park Service (NPS).

Because the locations of some earlier structures, such as the lock house and the frame house mentioned by Zachariah Green, are not known, it is difficult to determine when they were demolished. They likely were razed during this period.

No physical alterations of the Fletcher's Cove study area in the 1920s through the 1930s have been found in research to date.

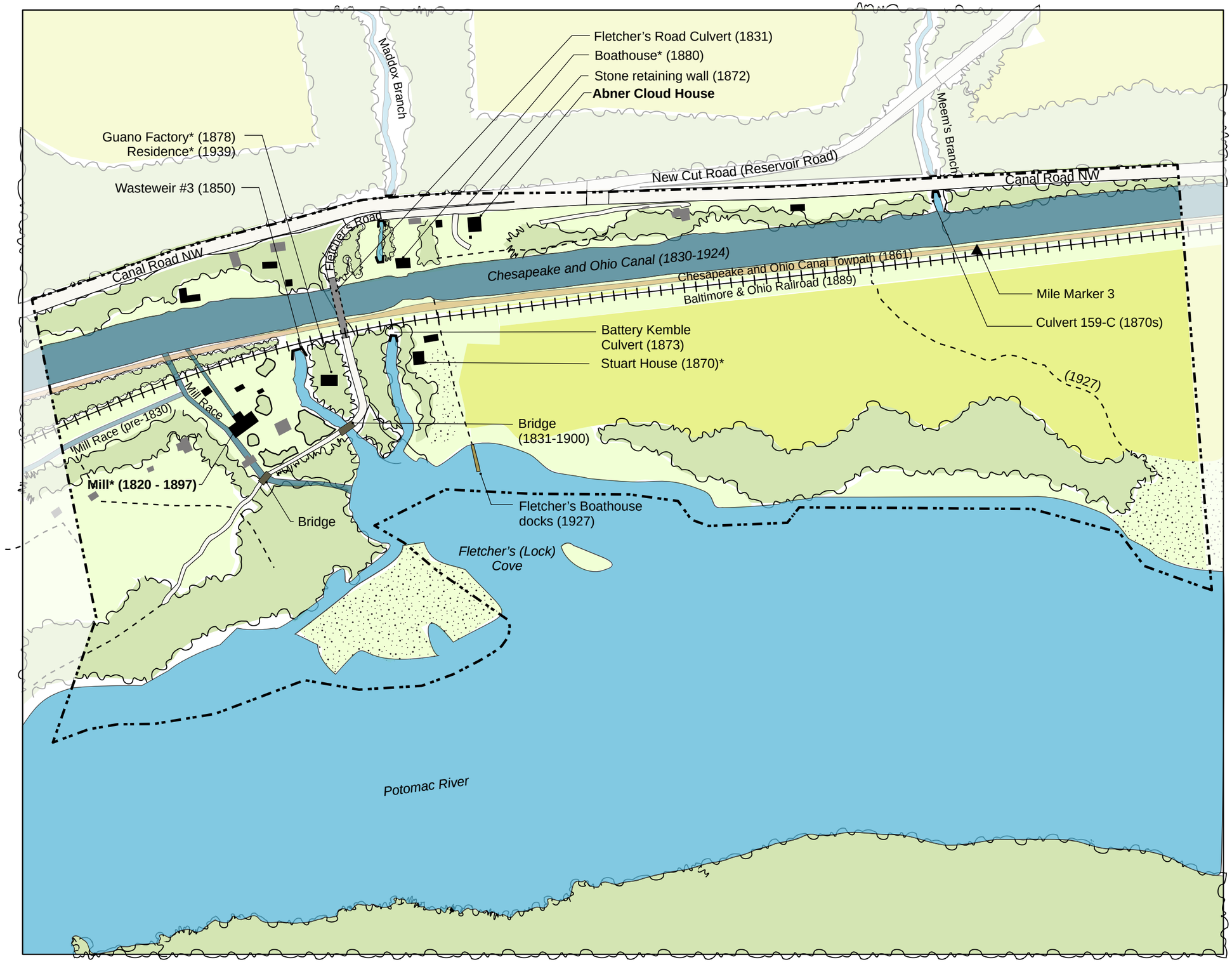
Landscape conditions during the period of 1826–1939 are illustrated on Historic Period Plan 2, HPP-2.



Figure 2-19. Photograph showing the Abner Cloud House, C&O Canal, and towpath, looking southeast from towpath, 1909. By this time, a second-story porch had been added to the house and a wall was constructed northwest of the house (shown in front of the house from the viewpoint of the image) (Library of Congress)

LANDSCAPE CONDITION, 1826–1938

The overall study area's constructed water features and circulation systems underwent significant changes during the period between 1826 and 1938. The construction of the Chesapeake & Ohio Canal added a strong north–south alignment to the flow of water on site. Previously dominant east–west routes of the Maddox and Meem's Branches and lock channels were either incorporated into the canal system, as with Meem's Branch and the "new" lock channel, or routed under the canal, like the Maddox Branch. Commercial and transportation land uses peaked during this period, centering around the canal and Fletcher's Road, which provided access to the mill and other buildings in the North Woods area. Agricultural use occupied a significant portion of the site. The study area was organized around the commercial hub at the intersection of Fletcher's Road and the C&O Canal and residential development spead from that area. Other constructed water features associated with the development of the C&O Canal include: Wasteweir 3, the Battery Kemble Culvert, Fletcher's Road Culvert, Culvert 159-C, the canal prism, and towpath topography. The canal, Canal Road NW, and later the Baltimore and Ohio Railroad, were primary circulation routes that ran parallel north to south through the study area. Secondary circulation routes included: Fletcher's Road, an unnamed road that ran parallel to the river north of Wasteweir 3, and multiple footpaths. Vegetation was a mix of wooded areas and open areas maintained as pasture or hay. The North Woods area was partially-deforested by commercial and residential development, with a wooded character along the Potomac River shoreline. The South Woods area was mostly open, with a band of small shrubs and trees along the shoreline and a wooded area separating that from pasture. Views between Canal Road NW and the Potomac River were retained near the Abner Cloud House. Due to less forested areas, it is likely that there were broad views to the river throughout the study area. Numerous buildings and structures were located in the North Woods area. The Edes' Mill building was destroyed by fire in 1897, and a guano factory was likely located between Wasteweir 3 and Fletcher's Road, which was later replaced with a residence. In 1870 the Stuart House and one other structure were located between the canal and the river and Fletcher's Boathouse began operation from a building on the east side of the canal starting in the 1880s. Aerial imagery from this period illustrates additional buildings but no documentation has been located to indicate their use.



Chesapeake and Ohio Canal National Historical Park

Fletchers Cove

C&O Canal to Federal Acquisition, 1826-1938

Legend

- Study Area Boundary
- Roads
- Tunnel
- Towpath
- Footpath
- Bridge
- Dock
- Railroad
- Canal / Constructed Waterway
- Stream or River
- Building
- Building (1927)
- Culvert
- Wooded Area
- Pasture/Hay
- Open/Grasses
- Shrubs/Small Trees

Notes

1. Building locations determined by historic maps, documents, and relationships to known existing features including topography and waterways.
2. Unconfirmed building locations are noted with an * asterisk and placed on the map in the general location where they were historically. Buildings present in maps and imagery whose use is undocumented are not labeled.
3. Shoreline, vegetation, and circulation generated using 1927 aerial imagery.

Sources

1. Hydrology and contour data from National Park Service, DC Geodatabase, 2021
2. 1861 Boschke Map
3. 1868 JK Smith Plat Map, "Edes Mill"
4. 1872 Fletcher's Map, LOC 88695607
5. 1878, 1887, 1891 Hopkins Maps
6. 1892 USGS Map
7. 1922 US Army Air Service Aerial Photograph, Fletcher's Cove.
8. 1927 Aerial Imagery, National Archives from NCR.
9. 1928 National Capital Park and Planning Commission, "Upper Potomac Park Project to Preserve the Great Falls and Palisades of the Potomac," LOC G3851.G52

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1 inch = 200 feet

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NATIONAL PARK SERVICE STEWARDSHIP AND ENHANCED RECREATIONAL USE, 1939–1966

The physical development of the Fletcher's Cove study area in 1939–1966 primarily reflected its shift to mostly recreational use under NPS ownership. Residential use of the study area continued through the 1940s, but federal efforts in the 1950s solidified its use for recreation by the 1960s.

A 1939 report prepared by Thomas C. Vint, chief of planning at NPS Branch of Plans and Design, provides clues on the state of the former mill site during this period. The report captures a single-story, frame house on a stone foundation and a chicken coop south of the ravine, in the approximate location of the guano factory as it is drawn in the 1878 Hopkins map (Figure 2-20).[97] The chicken coop was likely associated with the house. When the house was constructed and when it was demolished are not known. The house was still extant in 1952, when a plat map showed it as the only structure in the area surrounding the former mill site (Figure 2-21). Existing stone ruins at this site, long believed to have been part of the Edes' Mill building, may have been the foundation of this house.

As stewards of the C&O Canal, federal officials implemented projects to preserve canal-related historic buildings, such as lock houses, and other features, such as canal locks, throughout the 1930s and 1940s. Research to date has not discovered any documented improvements or alterations to the area around the Fletcher's Cove study area in those decades. In 1943, NPS prepared a perspective drawing and plans of a new, much larger Fletcher's Boathouse. The drawing does not indicate where the building was to be located on the site. The building was never constructed.[98]

A USGS map from 1945 shows that even more houses had been built on Canal Road NW, northwest and southeast of the Abner Cloud House (Figure 2-22). By the 1940s, a building northwest of the Abner Cloud House was the main building of the Fletcher's Boathouse business (Figure 2-23). This building was perhaps in the location of the Fletcher's Boathouse building mentioned in the 1912 article. This Fletcher's building was comprised of a one-story, side-gable main block with a shed rear addition. Behind the building was a one-and-a-half-story, side-gable shed that was clad with metal siding. Julius Fletcher (1912–1979) assumed ownership of the boathouse business in 1950, following the death of his father.[99] An agreement was reached in 1939 between the Fletcher family and the National Park Service stipulating that the family could operate the boathouse business, despite the property being on federal land.[100]

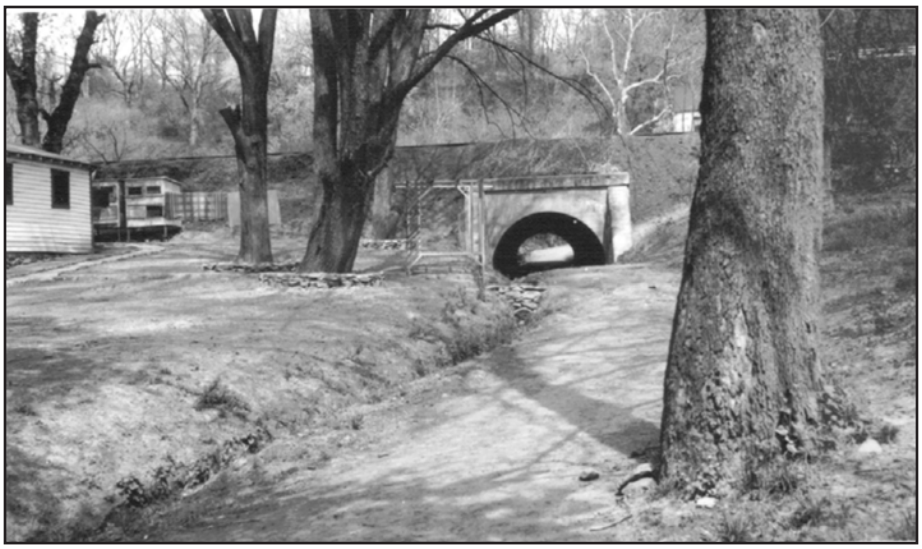


Figure 2-20. Photograph of area near mill site showing house at left, 1939 (Thomas C. Vint, *Outline Report of Architectural Work on the Restoration of the Chesapeake and Ohio Canal for Recreational Use (Georgetown, DC, to Seneca, MD)* (National Park Service, 1939), 15)

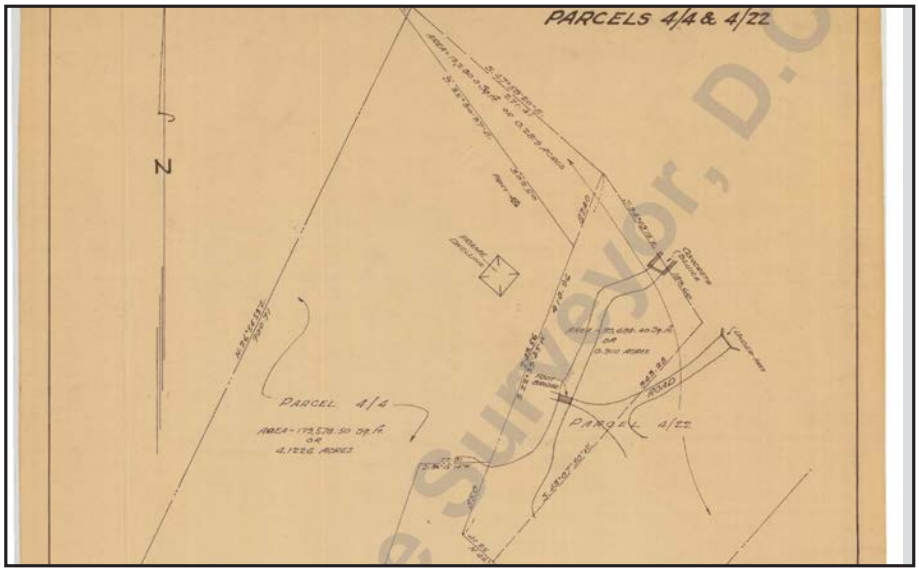


Figure 2-21. Plat map showing project area, 1952. The house captured in the 1939 Thomas Vint report is shown as a box near the center of the image (Washington, DC, Surveyor's Office)



Figure 2-22. Detail of map, showing project area, 1945 (US Geological Survey)

By the 1950s, the area around the Abner Cloud House and Fletcher's Boathouse building on Canal Road NW was used for parking. As seen in a 1958 photograph, two paths, one northwest of the Abner Cloud House and the other northwest of the Fletcher's Boathouse building, are shown branching off Fletcher's Road to the parking area (Figure 2-23). The two paths appear as muddy dirt roads in the photograph. The photograph also shows overgrown vegetation northwest of the Fletcher's Boathouse building, mature trees around the Abner Cloud House, and a mature forest between the canal and the river.

By 1952, a metal-clad boathouse and frame refreshment stand had been constructed opposite the canal (to the southwest) from the one-and-a-half-story building behind the Fletcher's building.[101] The metal boathouse and refreshment stand were located on the site of the residence first seen on the 1861 map, and belonging to "Miss Stuart" in the 1878 map. A 1951 aerial photograph shows boats lying on the ground near the buildings (Figure 2-24). Demolition of the prior house and construction of the boathouse and refreshment stand changed the function of this section of the Fletcher's Cove study area from residential to recreational. The house shown in the 1939 report by Thomas Vint and depicted in the 1952 plat map was still extant at this time (Figure 2-21).

The 1951 aerial shows a path leading southwest from the canal, in front of the metal-clad boathouse and refreshment stand, to the cove (Figure 2-24). This was presumably the path boat renters took to the boat docks in the cove. The area southeast of the buildings is shown with a long clearing, flanked by clusters of trees to the northeast and southwest. This area was used for parking by boathouse customers. The 1951 aerial shows much of this cleared area with large patches where grass had worn down, likely because of its function as a parking lot. This clearing is not apparent in the 1922 aerial photograph. Aerial photographs suggest the wooded mill site remained in an overgrown state at this time. According to the C&O Canal National Register nomination, the National Park Service repaired or rebuilt the towpath in several places over time to maintain its continuity for recreational purposes, but it is not clear whether this was carried out at the Fletcher's Cove study area.[102] By 1952, a new bridge had been installed over the ravine, where the Rambler had indicated in 1914 that only a single timber remained of the older bridge.[103]

Efforts to rehabilitate the portion of the canal around the Fletcher's Cove study area accelerated in the mid-1950s. The site was targeted to be redeveloped as a recreational area. By the early 1950s, federal officials argued that the working-class neighborhood was a "24,000-square-foot health menace."[104] In 1953, the National Capital Planning Commission (NCPC) singled out twenty-one "shanties,



Figure 2-23. Photograph of the Abner Cloud House and the Boathouse structures, looking southeast, 1958 (People's Archive, Washington, DC, Public Library)

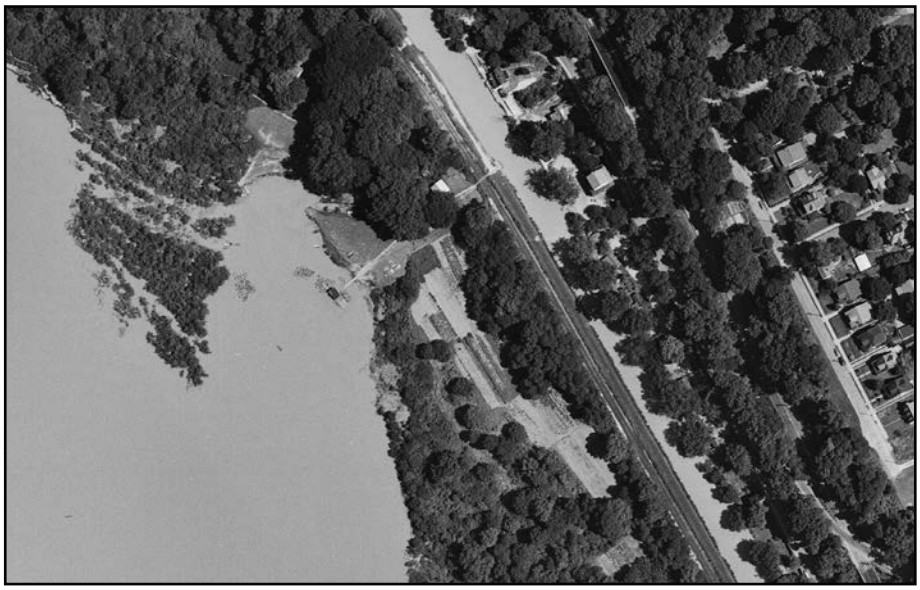


Figure 2-24. Aerial photograph of project area, 1951 (National Park Service)

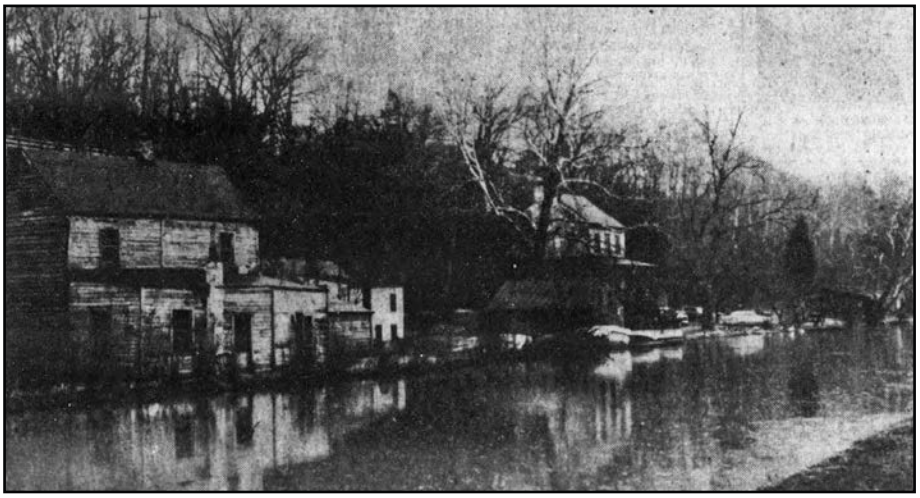


Figure 2-25. Photograph showing some of the homes along the canal demolished in 1958. Near the middle of the photograph is the Abner Cloud House, which was spared from demolition (*Evening Star*, March 6, 1958)

shacks[,] and frame houses" as, according to public health officials at the time, "sources of disease" and "unfit to live in."[105] The twenty-one houses were between Georgetown and Chain Bridge, along Canal Road and K Street NW. A concentration of such homes were in the 4900 block of Canal Road NW, the block that included the Abner Cloud House and was situated within the Fletcher's Cove study area, as seen in the 1945 USGS map.[106] NCPC acquired the sites for the National Park Service. Demolition of the houses occurred over the course of the 1950s, as disagreements over ownership of the lots were resolved.

Renewed attention to the residential community at Fletcher's Cove was concurrent with an NPS proposal in the early 1950s to construct a parkway on the C&O Canal. A heated debated ensued, as conservationist groups, including the Audubon Society of the District of Columbia, took to print and the airwaves to foment opposition. The groups instead argued for preservation of the canal for recreation purposes. By 1956, facing mounting public opposition, NPS abandoned the proposal.[107]

By 1956, NPS officials shifted their plans for the canal to focus on recreation, as the conservationists had advocated. The new attention to conserving the land along the canal was part of a larger national effort that culminated in the Mission 66 program. Mission 66 was a ten-year initiative by the National Park Service to modernize and improve national parks after decades of decreased funding and deferred maintenance, in anticipation of NPS's fiftieth anniversary in 1966. Begun in 1956, the initiative marked the most significant federal funding for the National Park Service since the New Deal programs of the 1930s.[108] The Mission 66 program funded more than 100 visitor centers, constructed or reconstructed over 2,700 miles of roads and over 900 miles of trails, provided many parks with adequate water, sewer, and electric service for the first time, and built hundreds of park residences, comfort stations, and other public-use property types. The project did not conclude with the NPS anniversary in 1966. By the end of the Mission 66 program, a number of projects remained incomplete, and new parks were still planned. What became known as Parkscape USA (1967–1973) was the result of this work to complete remaining projects, in time for the Yellowstone National Park centennial celebration in 1972.[109]

Removing the homes along the canal in the Fletcher's Cove study area continued to the end of the decade. In 1958, seven families in the 4900 block of Canal Road NW were evicted and their homes demolished (Figures 2-25 and 2-26). The Abner Cloud House, acquired by the federal government in 1957, was the only residence spared from demolition. Soon after acquisition, NPS removed the second-story porch from the house.[110] In place of the old residential neighborhood, the focus

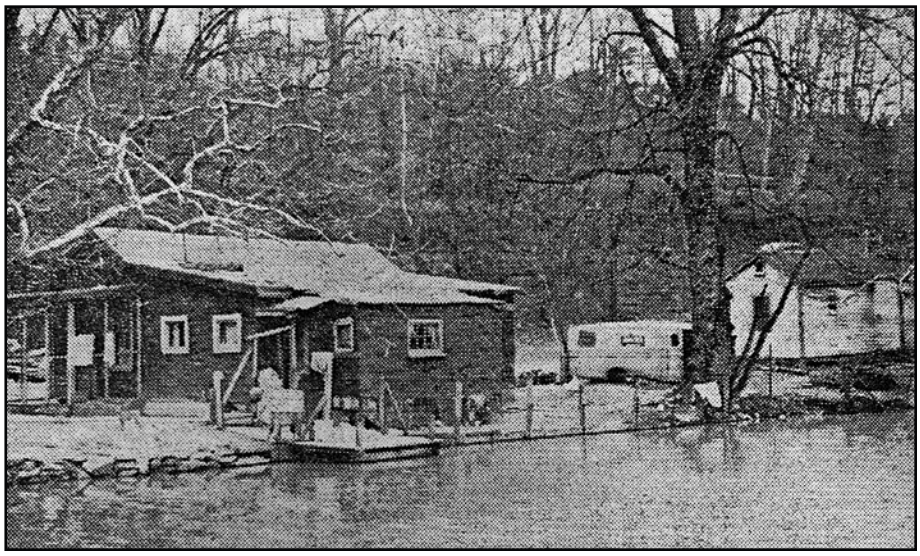


Figure 2-26. Photograph showing some of the homes along the canal demolished in 1958 (*Evening Star*, 1953)



Figure 2-27. Boathouse and refreshment stand, 1963. Also note the worn area in the foreground that was used for parking (Historical Society of Washington, DC)



Figure 2-28. Aerial photograph of project area, 1963 (National Park Service)

of the Fletcher's Cove study area shifted to mostly recreational. A National Park Service representative stated the site was intended "primarily for fishermen, rowboats[,] and canoes."[111]

With the demolition of the houses, the remaining structures on the site by the early 1960s were the Abner Cloud House and the buildings associated with Fletcher's Boathouse. By this time, the Abner Cloud House had deteriorated. Photographs of the house from this era show window openings covered with wood. In 1962, a new boathouse was constructed in the location of the old boathouse. Adjacent to this building, a new concrete-block refreshment stand was built on the site of the old frame refreshment stand in 1963. The new boathouse was clad with corrugated metal and covered by a front-gable roof. A shed porch fronted the building. The new refreshment stand featured concrete-block walls under a shed roof. Photographs from 1963 capture the brief period just after the new boathouse was constructed, but before the new refreshment stand was built (Figure 2-27).

By 1963, a path had been laid connecting Fletcher's Road to the recreational area near the boathouse and refreshment stand. Whereas the 1951 aerial had shown a linear path from the canal to the cove, the 1963 aerial shows this path virtually erased by further erosion of the grass, continuing a condition seen in the 1951 aerial (Figure 2-28). A photograph of the boathouse and refreshment stand also provide evidence of this condition (Figure 2-27). The 1963 aerial also shows a bridge crossing Maddox Branch. It is not clear when this bridge was installed.

Beginning in 1964, considerable amounts of landfill were used to fill a sluiceway that ran northwest–southeast through the Fletcher's Cove isthmus.[112] This landfill was mostly taken from the bottom of the canal bed in order to construct the Potomac Interceptor Sewer and placed in the sluiceway and the river banks. Completed in 1964, the Potomac Interceptor Sewer ran from Washington Dulles International Airport to the Potomac Pumping Station near Georgetown. The interceptor was constructed following congressional legislation passed in 1960 authorizing the District of Columbia to plan, construct, operate, and maintain a sanitary sewer from the airport to the District sewer system. Although its alignment was located mainly in undeveloped areas, the interceptor was placed under portions of the C&O Canal.[113]

In 1966, NPS prepared another proposal to construct a new boathouse, as part of an ambitious plan to redevelop the area around the 1962 boathouse and 1963 refreshment stand (Figure 2-29). The site plan prepared for the project shows a new boathouse and snack shop along the B&O Railroad tracks, to the northeast of the existing boathouse/refreshment stand. Surrounding the boathouse were a

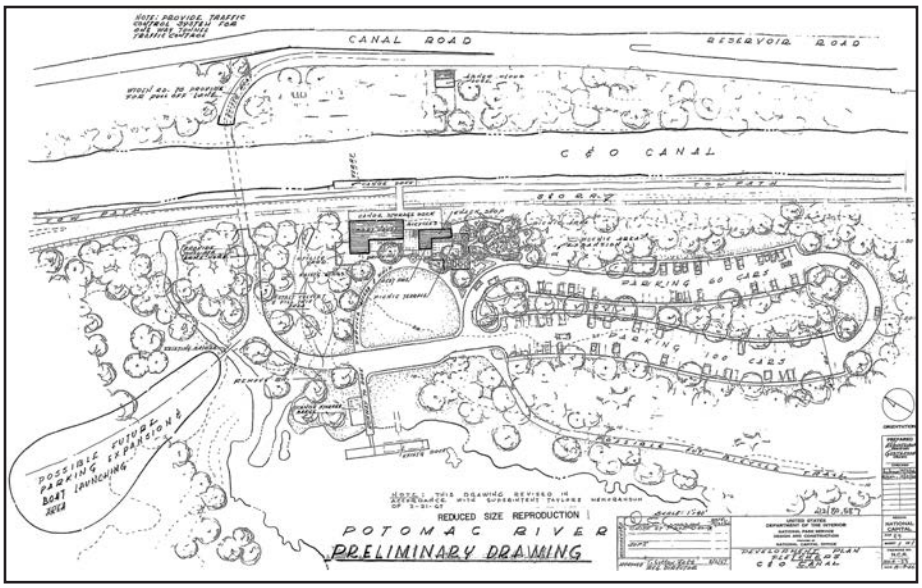


Figure 2-29. Preliminary drawing of the unbuilt plan to redevelop the boathouse and refreshment stand, 1966 (National Park Service)

canoe storage deck and an area for bicycle storage. On the other side of railroad tracks from the new boathouse was a canoe dock along the canal. The area southeast and southwest of the new boathouse/snack shop contained dedicated spaces for parking and picnicking. Branching off of the parking area to the southeast was a bicycle trail. The portion of Maddox Branch southwest of the canal was to have been filled, and the bridge across it was to be removed. A pull-off area was proposed at Fletcher's Road, just beyond the culvert. An overflow parking area was proposed for northwest of the Wasteweir 3 outflow. The project was not implemented.

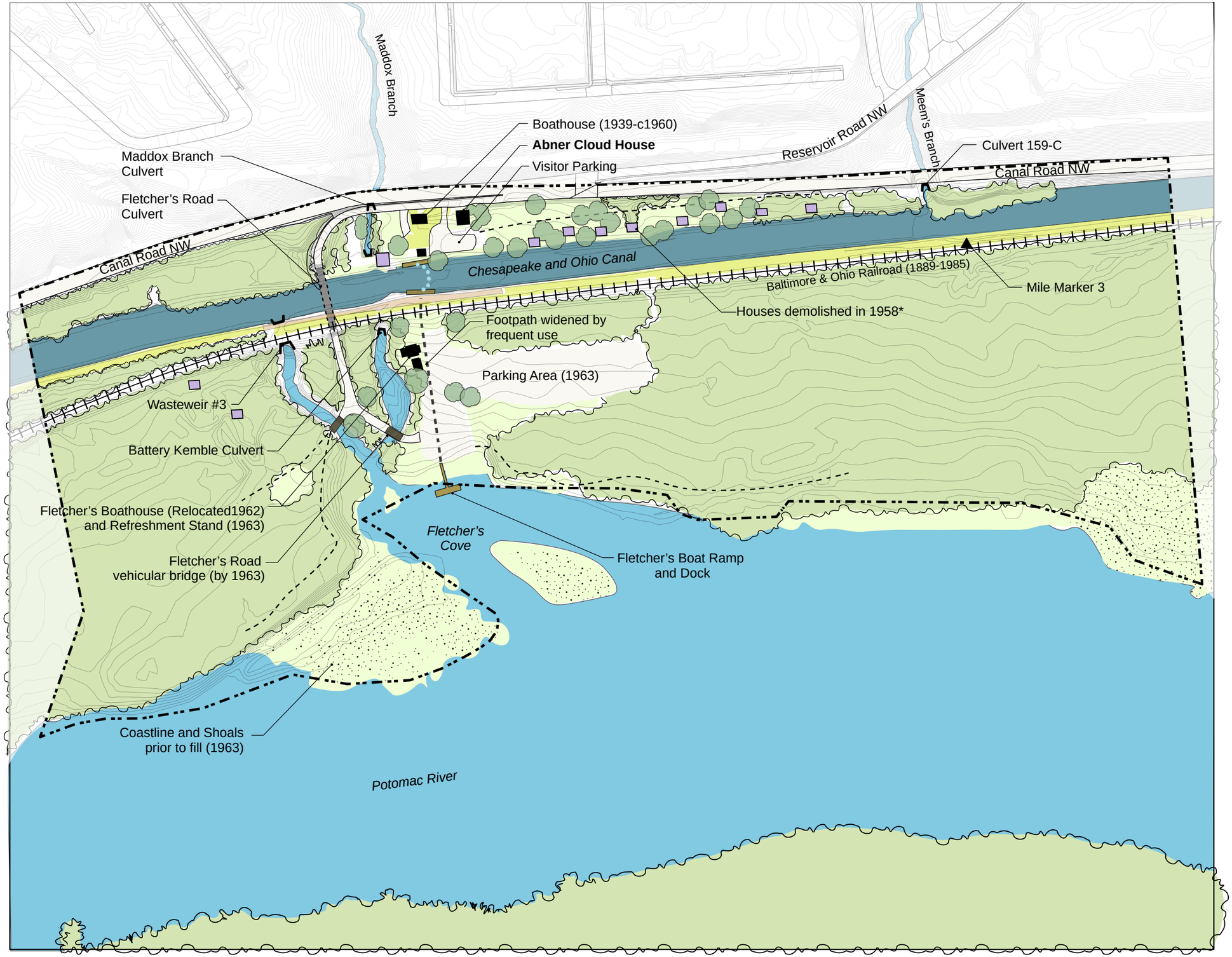
Landscape conditions circa 1966 are illustrated on Historic Period Plan 3, HPP-3.

LANDSCAPE CONDITION, 1939–1966

The transition to federal ownership and oversight of the study area started in 1939. Conservation and recreation became dominant land uses, though residential dwellings remained on site until the last were removed by 1958. Only the Abner Cloud House remained of the site's once-numerous residences and the canal area was refocused around the historic hub of the Abner Cloud House and Fletcher's Road and Boathouse. The study area was organized around the C&O Canal, Potomac River, and Fletcher's Boathouse, which supplied boats to access the site's waterways. Increased recreational use affected the site's vehicular and pedestrian circulation routes. Visitors parked their vehicles around the Abner Cloud House and, with the relocation of Fletcher's Boathouse to the west side of the canal in 1952, they also parked in an unstructured, unpaved area to the south of the new boathouse. The path worn by visitors across the towpath, railroad tracks, and down the slope to the cove widened during this period due to frequent use. Vegetation was a mix of canopy trees with open understory around the Abner Cloud House and residences on the east bank of the canal and wooded areas in the North and South Woods areas, with some small trees and shrubs along the riverbank. Views between Canal Road NW and the Potomac River were partially retained near the Abner Cloud House as canopy trees and wooded areas established along the canal. Woody vegetation established along the canal and railroad berm except where foot traffic kept it clear, retaining views between the canal, boathouse, and river at this focal point. This period was characterized by widespread changes to buildings and structures in the overall study area. Residential buildings were demolished and a recreational landscape was established. The Fletcher's Road vehicular bridge that provided access to Fletcher's Boathouse was in place by 1963. Small-scale features such as the docks along the canal and the boat ramp and dock in Fletcher's Cove provided access to the water and picnic tables provided space for passive recreation.

Chesapeake and Ohio Canal National Historical Park

Fletcher's Cove
NPS Acquisition & Mission 66, 1939-1966



Legend

- Study Area Boundary
- Contours (2 ft, Approximate)
- Roads
- Footpath
- Tunnel
- Towpath
- Dock
- Bridge
- Railroad
- Canal / Constructed Waterway
- Stream or River
- Water Crossing
- Building
- Building demolished in 1958
- Culvert
- Wooded Area
- Tree (conjectural location)
- Mown Lawn
- Open/Grasses
- Shrubs/Small Trees

Notes

1. Building locations determined by historic maps, documents, and relationships to known existing features including topography and waterways.
2. Unconfirmed building locations are noted with an * asterisk and placed on the map in the general location where they were historically.
3. Coastline and shoals located from 1951 aerial photograph, island located from 1963 aerial photograph.

Sources

1. Hydrology and contour data from National Park Service, DC Geodatabase, 2021
2. 1939, NPS, C&O Canal Vicinity at Fletchers Boathouse, eTIC CHOH 412-80610
3. 1945 USGS map
4. 1951 Aerial photograph
5. 1963 Aerial photograph
6. 1965, NPS, "Water Supply to Fletcher's Boat House" Dwg No. 110.4-30

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1 inch = 200 feet

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NATIONAL HISTORIC PARK, 1967–PRESENT

Since 1967, a focus on recreation, sustainability, improved accessibility, and historic preservation have defined the physical development of the Fletcher's Cove study area. Although the C&O Canal had been under federal ownership and stewardship since 1938, NPS officials struggled throughout the mid-century to find a proper use. After the abandoned parkway proposal, efforts turned to conservation of the canal and recognition of its significance. Between 1956 and 1971, four attempts were made to designate the C&O Canal a national park, all of which ultimately failed to win passage in Congress. In 1961, President Dwight Eisenhower proclaimed the C&O Canal, between Seneca and Cumberland, a national monument. The continued efforts of conservationists and preservationists resulted in the listing of the canal in the National Register of Historic Places in 1966. The canal was designated as the C&O Canal National Historical Park in 1971.

By 1971, more formalized zones with dedicated functions were established in the area southeast of the boathouse and refreshment stand. In the section closest to the boathouse/refreshment stand where grass had worn away by 1963, a grassy, oval island for picnicking was established, its boundaries delineated by an oval drive that connected to an area reserved for parking to the southeast. The newly established parking area was formed around an oblong grassy island surrounded by a drive and space for parking (Figure 2-30).

Although the 1966 redevelopment plan was not implemented, interest continued in bringing improvements to the area around Fletcher's Boathouse. However, in a 1973 letter to Julius Fletcher, the superintendent of the park stated that "there is little hope for getting a developed area plan for the section of the C&O Canal including Fletcher's Boathouse within the near future."[114] Working drawings dating to October 1968 indicate a plan to install a drain system and pave through the road culvert. The project required some regrading of the road and approaches, particularly on the outlet side.[115]

At some point between 1964 and 1977, the two buildings associated with the Fletcher's Boathouse business northeast of the canal were demolished (Figure 2-31). The two buildings were the one-story building with the shed rear addition northwest of the Abner Cloud House and the shed behind this building (Figure 2-23). A bicycle shed was added near the boathouse and refreshment stand in 1972. Beginning in 1976, the Abner Clouse House was rehabilitated for use by the Colonial Dames of America Chapter III. The project included an extensive interior renovation, whitewashing the stone exterior, and restoring windows to the building (Figure 2-32).



Figure 2-30. Aerial photograph showing new parking area, 1971 (National Park Service)

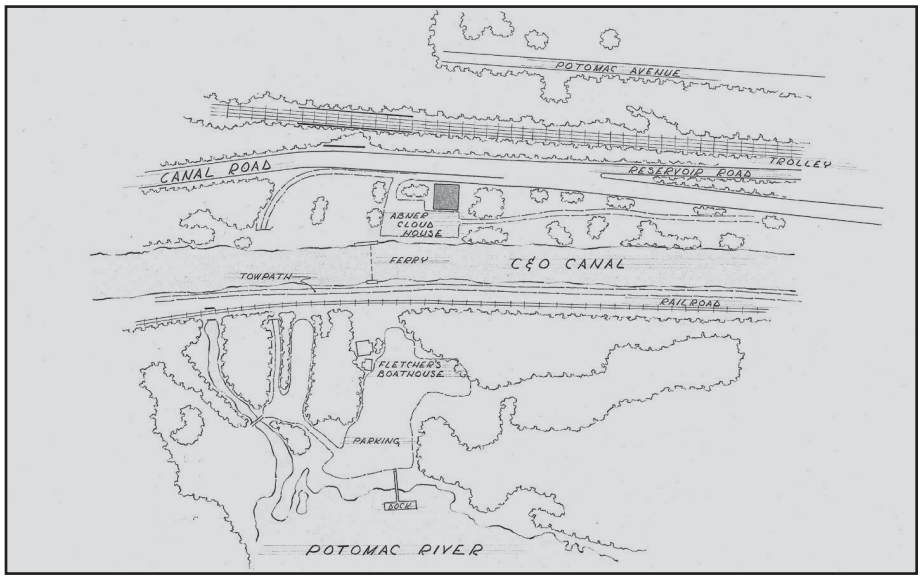


Figure 2-31. Site plan showing the removal of two buildings associated with the boathouse, 1977 (National Park Service)

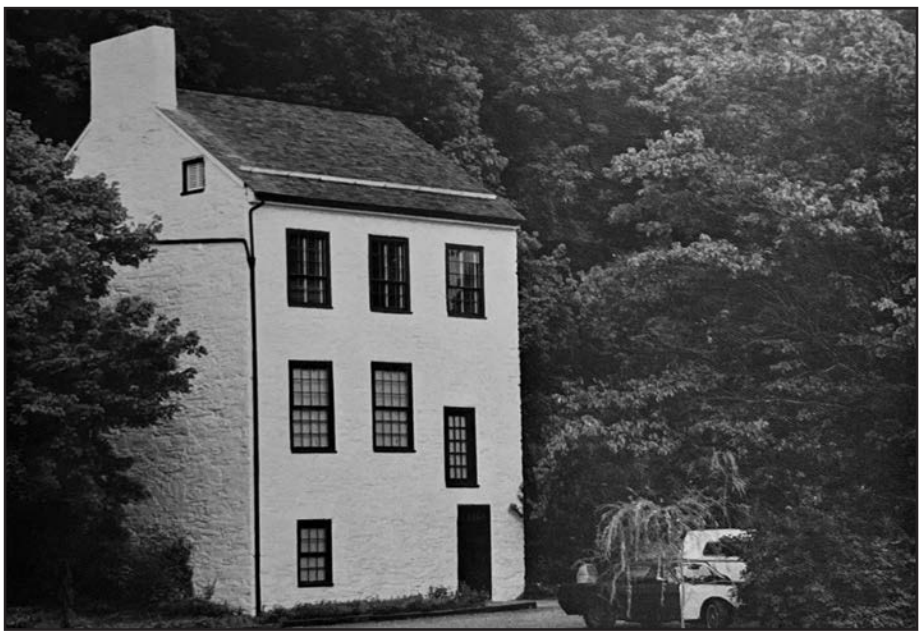


Figure 2-32. Photograph showing rehabilitation of the Abner Clouse House, undated (Alice Fales Stewart, *The Palisades of Washington, DC*)

Environmental and ecological challenges became increasingly apparent by the early 1970s. A letter from 1973 noted that some of the boathouse structures were damaged by flooding.[116] Much of this damage was due to Hurricane Agnes, which ravaged the eastern United States and the Washington region in particular in 1972.[117] NPS officials were concerned that "period storms had caused flooding of the plain upstream from the cove which in turn wash thru the cove with consequent flushing action."[118] The 1976 *General Plan* for the park identified Fletcher's Cove as part of the Zone C—Short Term Recreation Zone. The plan stated that the objective of the zone was "to ensure a leisurely recreational experience in a natural setting."[119]

By the 1980s, concern developed about inadequate water flow into Fletcher's Cove and the siltation that developed as a result. The source of the problem, NPS and US Army officials believed, was the landfill that had been placed in the isthmus sluiceway beginning in 1964 and continuing throughout the 1960s and 1970s.[120] A 1985 letter suggests construction of the Washington region's Metro transit system, which began in 1969, contributed further to siltation issues. The construction work had disturbed the normal discharge of the Potomac River in the cove, reducing the water level to an increasingly shallow level and allowing further siltation.[121] Federal officials reported that the two streams that entered the cove did not have the flow to keep the cove flushed. The slack water condition allowed for the settling of silt from Potomac River backwash, particularly at high tide. NPS discussed dredging the lagoon every three to five years.[122] The chief of the Ecological Services Lab proposed three potential solutions: (1) to dredge a new sluiceway, (2) relocate the boating dock to an upstream portion of the cove where the water is deeper, or (3) recreate the pre-1964 sluiceway through the isthmus. The third solution was determined impractical.[123]

To correct inadequate waterflow to the cove and the siltation, a new sluiceway was cut south of the pre-1964 sluiceway (Figure 2-33). In 1983, the 450 foot-long sluiceway was approved to run through the isthmus, between the Potomac River and the cove. Dredge material was to be deposited and retained in a designated disposal area between the shore and the Fletcher's Boathouse parking area. Straw was placed around the disposal area, which was then covered with grass. Work began on the project in 1986.[124]

In 1980, the Fletcher family determined the insurance cost of the ferry across the canal, from the Abner Cloud House to the recreational/parking area around Fletcher's Boathouse, was too high.[125] Instead, an arched, wooden footbridge was constructed across the canal in 1981 (Figure 2-34).

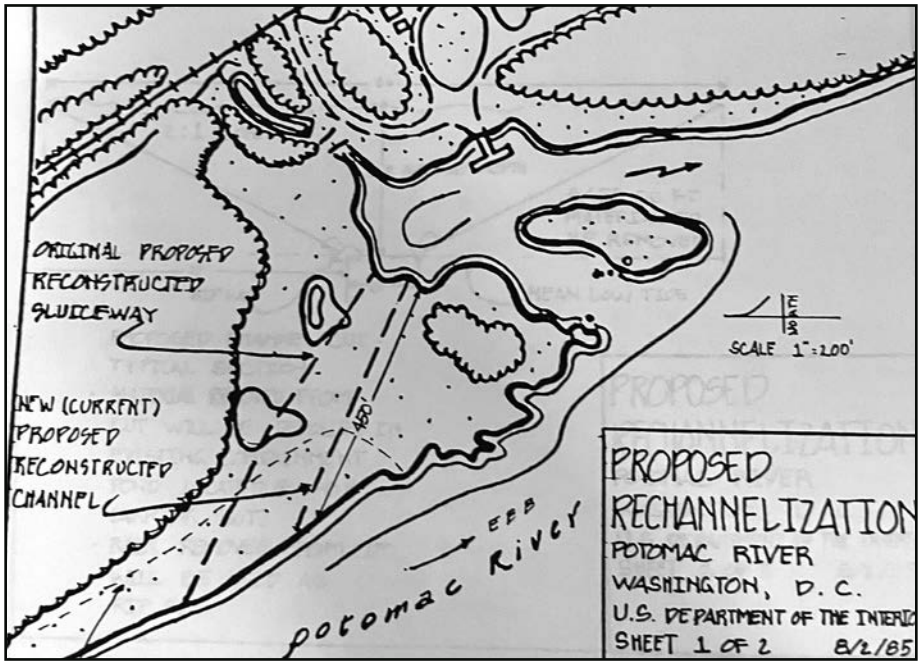


Figure 2-33. Plan for rechannelization near Fletcher's Cove, 1985 (C&O Canal National Historical Park Headquarters, National Park Service)



Figure 2-34. Photograph showing the wooden footbridge, undated (Alice Fales Stewart, *The Palisades of Washington, DC)*

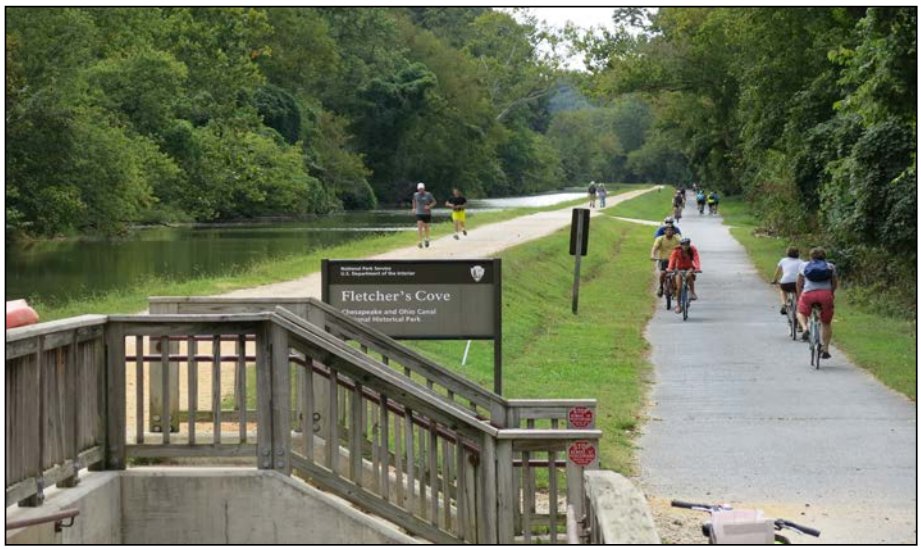


Figure 2-35. View of Capital Crescent Trail, looking southeast. Photograph by Thomas H. Skadow, 2015. (Available through Creative Commons at https://commons.wikimedia.org/wiki/File:Fletcher%27s_Cove_Trail_Head.JPG)

Further changes to the function of the study area occurred when the Georgetown Branch of the B&O Railroad, by then part of CSX Transportation, ceased operations. By the early 1980s, the only customers using the rail branch were the General Services Administration, which used the railroad to bring coal to a heating plant at 29th and K streets in Washington, and a small building-supply company in Bethesda. Losing money on their ownership and operation of the rail branch, CSX proposed abandoning it in 1983. The last train ran on the branch in June 1985.[126]

In 1986, only a year after CSX abandoned the Georgetown Branch, the old railroad bed was targeted for a new use. A nonprofit organization known as the Coalition for the Capital Crescent Trail formed to convert the old railroad bed into a trail for walking, jogging, and cycling. The coalition consisted of the Montgomery County government, the National Park Service, and a group of citizens' associations, recreation clubs, and private individuals. They worked to acquire the rail right-of-way for public use. After the right-of-way was secured, work to remove the railroad tracks and build the trail occurred through the early 1990s. Opened in 1994, the Capital Crescent Trail, an eleven-mile trail from Georgetown in Washington to Silver Spring, Maryland, was the result of their efforts (Figure 2-35). NPS managed the approximately 3.7-mile section of the trail in Washington, while the rest, the portion in Maryland, was managed by Montgomery County.[127]

Alterations to the Fletcher's Cove study area in the 1990s included changes to vegetation, the Canal Road retaining wall, a new trail, and accessibility improvements. In 1994, two box elder trees were removed from the recreational/parking area around Fletcher's Boathouse. The two trees were determined to pose a threat to the bicycle shed and refreshment stand.[128] Beginning in 1996, the Canal Road retaining wall was repaired and raised. Repairs to the existing wall included a partial rebuilding in some areas.[129] The new portion of the wall, atop the old wall, had a cantilevered concrete core with stone facing to match the historic stone of the original wall.[130]

In 1998, a new, wider bridge replaced the 1981 bridge across the canal. In addition, new stairs and a ramp were installed to enhance accessibility down the sloped site from the towpath and Capital Crescent Trail to the recreational/parking area around Fletcher's Boathouse.[131]

In the twenty-first century, attention has been devoted to evaluating the significance of the Fletcher's Cove study area. An NPS wayside near the stone ruins northwest of Fletcher's Road was installed in the 2010s commemorating the

study area's history as an industrial site. However, the wayside mistakenly assigns the ruins as the original mill building and credited establishment of the mill to Abner Cloud. In addition, the Colonial Dames of America have continued to provide stewardship of the Abner Cloud House.

In 2013, an Odor Abatement Building, which included public restrooms, was constructed northwest of the Cloud House. The brick building was intended to control odor from the Potomac Interceptor.[132] Also in 2013, boulders were placed along the southwestern and southeastern edges of the lawn fronting the Cloud House to prevent parking close to the building.[133] Sometime between 2011 and 2014, concrete bin blocks were placed along the northwest edge of the parking area near the Abner Cloud House to prevent cars from blocking access to the pedestrian bridge across the canal.

Improvements to aid traffic entering the Fletcher's Cove study area from the street were also added. In 2015, traffic signals and pedestrian crossing signals were installed near the intersection of Canal Road and Reservoir Road and a traffic signal was placed at the base of the ramp from the study area to Canal Road (north of the Abner Cloud House). Poles were installed at both the intersection and the base of the ramp to hold the traffic signals. A designated walkway was painted on the ramp: pedestrians would proceed on the walkway up the road and, when traffic signals allowed, could continue across Canal Road and onto Reservior Road. Accompanying signage was installed to instruct on the operation of the signals.[134]

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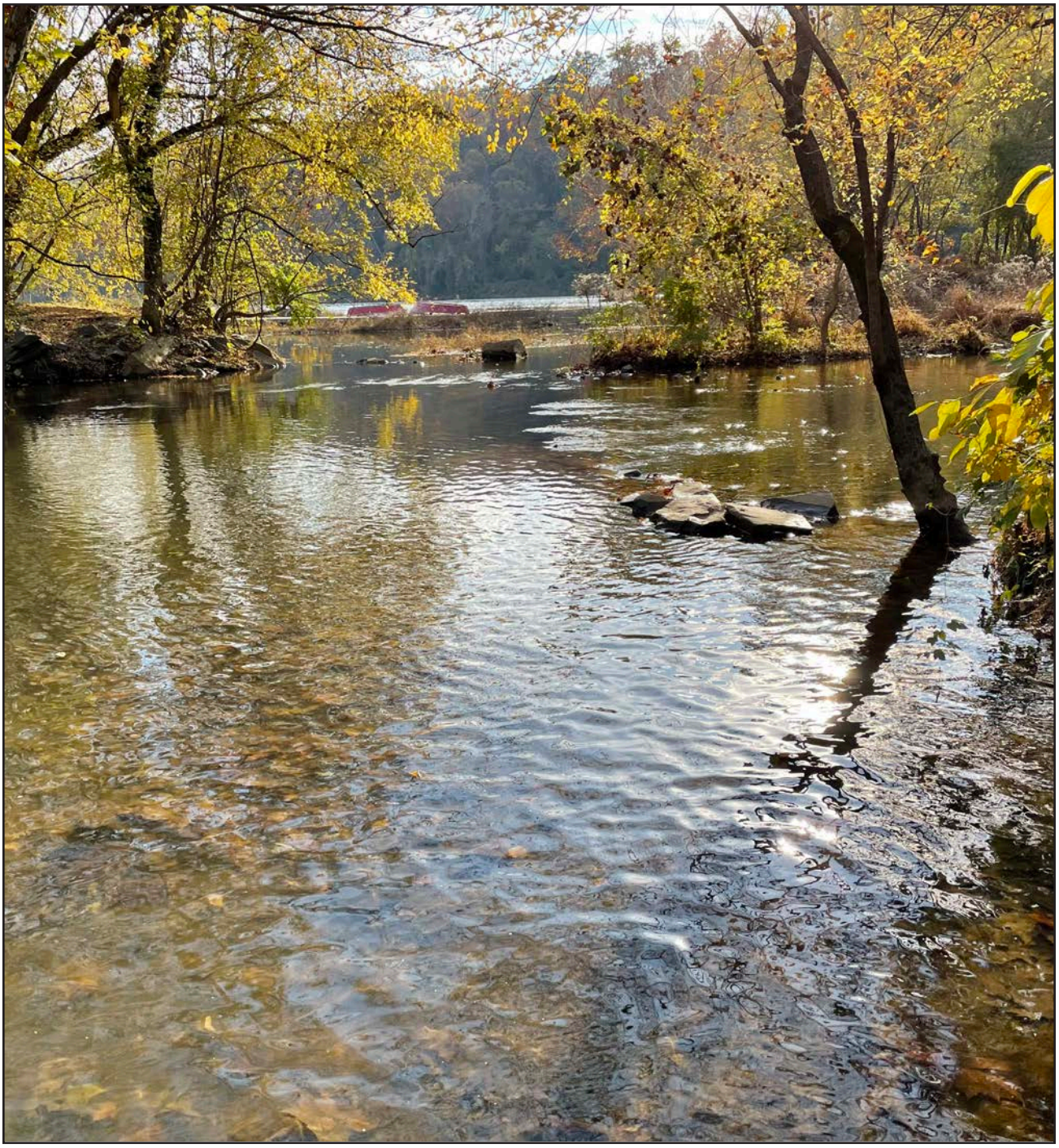
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Chapter 3: Existing Conditions and Analysis

Title Page: View south to the Potomac River across Fletcher's Cove (QE, 2021)

Existing Conditions and Analysis

This chapter describes the existing conditions and provides an analysis of integrity of the cultural landscape at the Fletcher's Cove study area. It identifies and documents those qualities and features that reflect the historic character, retain integrity, and contribute to the significance of the landscape. Field investigations were conducted in November 2021.

The chapter begins with a summary of landscape integrity based on a period of significance from 1793–1966. Then the chapter presents the existing conditions and evaluation of the study area organized by landscape characteristic, documenting the overall area first followed by a description of the landscape character areas (LCAs) (Figure 1-2 in Chapter 1). The existing conditions and analysis are presented in three parts. First, the overall condition is described, followed by detailed descriptions of the Canal Corridor and Riverfront Recreation landscape character areas. Feature tables for LCAs are located at the beginning of the landscape description for each area ("Table 3-1. Overall Study Area Contributing and Non-Contributing Landscape Features" on page 79, "Table 3-2. Canal Corridor Contributing and Non-contributing Landscape Features" on page 119, and "Table 3-3. Riverfront Recreation Contributing and Non-contributing Landscape Features" on page 145).

The existing conditions and analysis of the landscape are described by using landscape characteristics. Landscape characteristics are the tangible and intangible aspects and features of landscapes associated with both physical and cultural conditions. Individually and collectively they aid in understanding the place as a whole. Landscape characteristics associated with the Fletcher's Cove cultural landscape are:

Natural Systems and Features

Natural systems and features are those natural aspects that have influenced the development and physical form of the project area, including geology, hydrology, and soils.

Land Use

Land uses are the major human activities or forces that influence organization, form, and shape of the landscape.

Topography

Topography is the three-dimensional configuration of the landscape surface, characterized by slope and orientation. For this report, topography refers to the ground surface as it has been shaped by human actions.

Spatial Organization

Spatial organization is the arrangement of elements that define and create space through the ground, vertical, and overhead planes, including topography, vegetation, natural systems, and buildings and structures.

Constructed Water Features

Constructed water features are the built features and elements that utilize water for aesthetic or utilitarian functions.

Circulation

Circulation consists of the features and materials that constitute systems of movement on the landscape, including vehicular routes such as roads and parking areas and pedestrian routes such as paths and trails.

Views

Views present a natural or human-made range of vision.

Vegetation

Vegetation consists of indigenous or introduced trees, shrubs, vines, ground covers, herbaceous plants, and lawns.

Buildings and Structures

Buildings and structures are three-dimensional built features such as the Abner Cloud House, comfort station, boathouse buildings, and bridges. In the landscape, these features create mass, scale, and contribute to character with their style and appearance. This chapter presents an overview of the buildings and structures within the project area as they relate to the cultural landscape.

Small-Scale Features

Small-scale features are human-scaled elements that provide specific functions at the site. These include both historic features related to the park, such as Mr. Fletcher's wooden bench, as well as contemporary features placed by NPS such as signs, picnic tables, and grills.

Archeological Sites

Archeological sites are locations containing surface and subsurface remnants related to historic or Indigenous land use.

SUMMARY OF LANDSCAPE INTEGRITY

As defined by the National Register of Historic Places, integrity is the ability of a property to convey its historical significance. To have integrity, the landscape must retain the tangible and intangible aspects that make up the identity for which it is significant. The US Secretary of the Interior identifies seven aspects or qualities that make up integrity: location, design, setting, materials, workmanship, feeling, and association. Retention of these qualities is necessary for a property to convey its significance, however, not all seven aspects must be present for a property to retain integrity.

Overall, the study area landscape retains integrity in location, design, setting, materials, workmanship, feeling, and association. Although there have been some changes since the historic period, overall the landscape retains the characteristics, physical attributes, and historic associations it had during the period of significance from 1793–1966.

Location

Location is the place where the landscape was constructed or where a historic event occurred. The Fletcher's Cove study area cultural landscape retains integrity of location, as the majority of components of the historic landscape, including the C&O Canal and its towpath, Canal Road NW, stone locks, and the Abner Cloud House, continue to occupy their historic locations. The location of the cultural landscape is directly related to its development as a corridor for transportation and commerce.

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property. The Fletcher's Cove cultural landscape retains integrity as a landscape designed for commerce and transporation, as well as the location of some of the earliest canal locks in the United States. Historic buildings, circulation, trails, constructed water features, and recreational areas were designed in response to the natural systems and topography in the study area. Design for recreation was an important consideration beginning in 1938 with NPS ownership. The overall arrangement of recreation areas within the study area is defined by circulation routes that follow historic alignments. Although the layout has been somewhat altered by the addition of noncontributing structures such

as the comfort station/odor control facility and pedestrian bridge over the canal, circulation routes including the trail through the South Woods, and successional vegetation, the design of the historic landscape is intact. Buildings and structures from the period of significance including the Abner Cloud House, Fletcher's Boathouse and Refreshment Stand, the Canal Road NW retaining wall, and C&O Canal structures constructed as part of site development retain their historic design. Some alterations made to address safety concerns, such as the extension of the Canal Road NW retaining wall, are compatible with the original design intent. The pedestrian bridge spanning the canal near the comfort station, initially added in 1981 and reconstructed in the 1990s, cuts off historic circulation routes in the waterway for canal barges.

Setting

Setting is the physical environment of the landscape. The existing setting of the overall study area closely resembles the landscape in the early twentieth century, as the site transitioned from a place of transporation and commerce to one of conservation and recreation. The setting is strongly defined by its proximity to, and views of, the C&O Canal and Potomac River at the intersection of the Piedmont Plateau and Potomac River floodplain. The historic character of the canal landscape as well as the valuable fishing grounds of Fletcher's Cove have been protected as important aspects of the park. Adjacent successional woodland areas and proximity to the river buffer the historic landscape from urban development. The establishment of successional woodland between the C&O Canal and Potomac River has altered the historically significant visual relationship between the canal and the river. The depth and appearance of Fletcher's Cove is affected by siltation and altered hydrologic regimes due to filling in the North Woods area. Although the NPS has dredged the cove in the past, changes to vegetation and views are gradually altering the setting of this location. These changes are partially due to the natural evolution of the landscape as affected by the river; however, upstream alterations to the hydrologic system are causing more dramatic effects in the cove. While the overall study area retains integrity of setting, alterations to the hydrologic patterns at Fletcher's Cove have impacted integrity of setting in this location.

Materials and Workmanship

Materials are the physical elements combined or deposited during a particular period of time and in configurations that form a historic property. *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history.

The landscape at the Fletcher's Cove study area retains integrity of materials and workmanship, displaying stylistic appearance consistent with the historic character of the property. The stone structures within the landscape, including the Abner Cloud House, Fletcher's Road Culvert, the Canal Road NW retaining wall, and other remnants of stone and concrete structures, are characteristic of the styles and techniques of buildings prevalent during the period of significance. While in states of ruin, remnants from historic structures present in the study area convey the materiality and construction techniques used during that time.

Constructed water features including the C&O Canal, Wasteweir 3, and the mill race remnant demonstrate techniques of manipulating the flow of water via topographic intervention for transportation and industrial uses during the period of significance.

The parklike vegetation in the Riverfront Recreation LCA, with easy access to parking and amenities such as grills, picnic tables, drinking fountains, and boat rentals, relates to the materials and workmanship historic to this site. The Fletcher's Boathouse and Refreshment Stand utilize metal and concrete materials that reflect the timing of their construction in the early 1960s.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. Fletcher's Cove retains many aspects of its cultural landscape as they relate to the history of commerce and transportation in the study area. The feel of the landscape around the Abner Cloud House retains a strong physical and visual connection to the C&O Canal and Towpath Trail. While successional vegetation has encroached on some views to and from the house and river, they are still accessible at distinct points in the study area. Once visitors arrive at the Riverfront Recreation LCA entrance, either by foot or via Fletcher's Road and Culvert, the feeling of being immersed in the cove and river is complete. In both areas, visitors feel entirely apart from the sights and sounds of the city.

Association

Association is the direct link between an important historic event or person and a historic property. The study area retains its association with the national historic park through continued managment by the NPS and use of the study area for conservation and recreational activities along the C&O Canal. Recreation continues to be the primary function of the landscape. The site alos retains assciation with the Little Falls Skirting Canal, built by the Potomac Company. George Washington was an original founder and the first president of the company. Visiting the Abner Cloud House, picnicking, boating, fishing, and

hiking through the woods and along the shore remain popular activities. The site entrance on Fletcher's Road conveys the historic arrival sequence past the Abner Cloud House and under the C&O Canal to visitors. While the addition of a modern comfort station has improved visitor experience, the addition of the pedestrian bridge that prevents canal barges from traversing the canal inhibits interpretive potential of the study area.

LIST OF LANDSCAPE FEATURES

Contributing features are individual elements and aspects that remain from the period of significance and contribute to the integrity of the property. These features are categorized by landscape characteristic and listed below.

Non-contributing features are those that have been added to the study area since the end of the period of significance and do not embody the historic character of the cultural landscape. Examples include: modern roads, parking areas, site furnishings, and signs that support current use of the site. Non-contributing features may be considered 'compatible' when they fit within the physical context of the historic period and do not impact the historic integrity of the property. Incompatible features are those that are not harmonious with the quality of the cultural landscape, and, by virtue of their existence, can impact the historic character.

OVERALL STUDY AREA EXISTING CONDITIONS & ANALYSIS

This section describes the existing condition of the Fletcher's Cove study area, organized by landscape characteristic. It describes the overall environment within the 44-acre study area including natural systems, waterways, and vegetation as well as broad patterns of human use such as spatial organization and circulation. Two Landscape Character Areas (LCAs), the Canal Corridor and Riverfront Recreation areas, are described separately as portions of the study area as illustrated in Figure 1-2. The North and South Woods areas are described as a part of the overall study area. Features that contribute to the character of the overall historic landscape and are not identified in the LCA sections of this chapter are listed in Table 3-1. Contributing features associated with the Canal Corridor

Table 3-1. Overall Study Area Contributing and Non-Contributing Landscape Features

Feature	C / NC / U / M (Contributing, Non-Contributing, Unconfirmed, Missing)	Significance Criterion and Area	FMSS Location ID / FMSS Asset ID
Natural Systems and Features			
Geology and soils	C	Criterion A: *Commerce, Transportation*	*N/A*
Hydrology	C	Criterion A: *Commerce, Transportation, Conservation* Criterion C: *Engineering*	*N/A*
Land Use			
Recreation	C	Criterion A: *Conservation*	*N/A*
Interpretation	NC	Compatible with conservation	*N/A*
Transportation	C	Criterion A: *Commerce, Transportation*	*N/A*
Park management (administration and maintenance)	C	Criterion A: *Conservation*	*N/A*
Topography			
Natural site topography	C	Criterion A: *Transportation*	*N/A*
Flat, floodplain topography	C	Criterion A: *Commerce, Transportation*	*N/A*
Topography associated with canal, mill race remnant, railroad	C	Criterion A: *Commerce, Transportation*	*N/A*
North Woods topography alterations	NC	Alterations made after 1966	*N/A*
Spatial Organization			
Orientation of canal, trails, and Canal Road around north–south axis defined by Potomac River	C	Criterion A: *Transportation*	*N/A*
Developed area including industrial and commercial buildings	C / M	Criterion A: *Commerce, Transportation, Conservation* Many structures missing from period of significance	*N/A*
Relationship between Fletcher's Boathouse and Fletcher's Cove	C	Criterion A: *Conservation*	*N/A*

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	SIGNIFICANCE CRITERION AND AREA	FMSS LOCATION ID / FMSS ASSET ID
CONSTRUCTED WATER FEATURES			
C&O Canal	C	Criterion A: *Commerce, Transportation*	*7254*
Mill race remnant	C	Criterion A: *Commerce*	*Consider adding record if park conducts active, recurring maintenance.*
Sluiceway	NC	Built in the 1980s	*Consider adding record if park conducts active, recurring maintenance*
Potomac Company Canal remnants	C	Criterion A: *Transportation* Criterion C: *Engineering*	*7259 / 1065172*
Wasteweir 3	C	Criterion A: *Transportation*	*7254 / 19852*
CIRCULATION			
Canal Road	C	Criterion A: *Transportation*	*80866*
Fletcher's Road	C	Criterion A: *Commerce, Transportation*	*80856*
Route across ravine to North Forest area	C	Criterion A: *Commerce, Conservation*	*N/A*
Social trails	NC	Established after the period of significance	*N/A*
Parking	NC	Established after the period of significance	*80873, 80874*
VIEWS			
From North Woods trail area to and across Potomac River	NC	Notable view	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From North Woods to Fletcher's Cove	NC	Notable view with potential for interpretation	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
Arrival sequence views	C	Criterion A: *Transportation, Conservation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
VEGETATION			
Wooded areas	C	Criterion A: *Conservation*	*7259 / 1169557*
Woody vegetation between Canal Corridor and Riverfront Recreation LCAs	NC	Established after 1966, detracts from views to Potomac River	*7259 / 1169557*

Feature	C / NC / U / M (Contributing, Non-Contributing, Unconfirmed, Missing)	Significance Criterion and Area	FMSS Location ID / FMSS Asset ID
Mown vegetation	C	Criterion A: *Transportation*	*7259 / 1169557*
Large sycamores	U	Likely established after 1966	*7259 / 1169557*
Buildings and Structures			
Masonry abutments of pedestrian bridge	C	Criterion C: *Engineering*	*106612*
Steel and wood pedestrian bridge	NC	Structure not historic fabric	*106612*
Mill structure remnant	C	Criterion A: *Commerce*	*7259 / 1065172*
Residence remnant	U	Structure origins unconfirmed	*Consider adding record if park conducts active, recurring maintenance*
Small Scale Features			
I-beam and concrete remnant	U	Structure origins unconfirmed	*Consider adding record if park conducts active, recurring maintenance*
Millstone piece	C	Criterion A: *Commerce*	*Consider adding record if park conducts active, recurring maintenance*
Stone and concrete remnant	U	Structure origins unconfirmed	*Consider adding record if park conducts active, recurring maintenance*
Potomac Company lock remnants	C	Criterion C: *Engineering*	*Consider adding record if park conducts active, recurring maintenance*
Overhead utility lines, power poles	NC	Added after 1966	*N/A*
Traffic signal / barrier	NC	Constructed in 2015	*7259 / 1000356*
Archeological Sites			
Fletcher's Boathouse Site (51NW13)	C	Criterion D: *Archeology*	*Consider adding record if park conducts active, recurring maintenance for archeological site*

NATURAL SYSTEMS AND FEATURES

Existing Condition

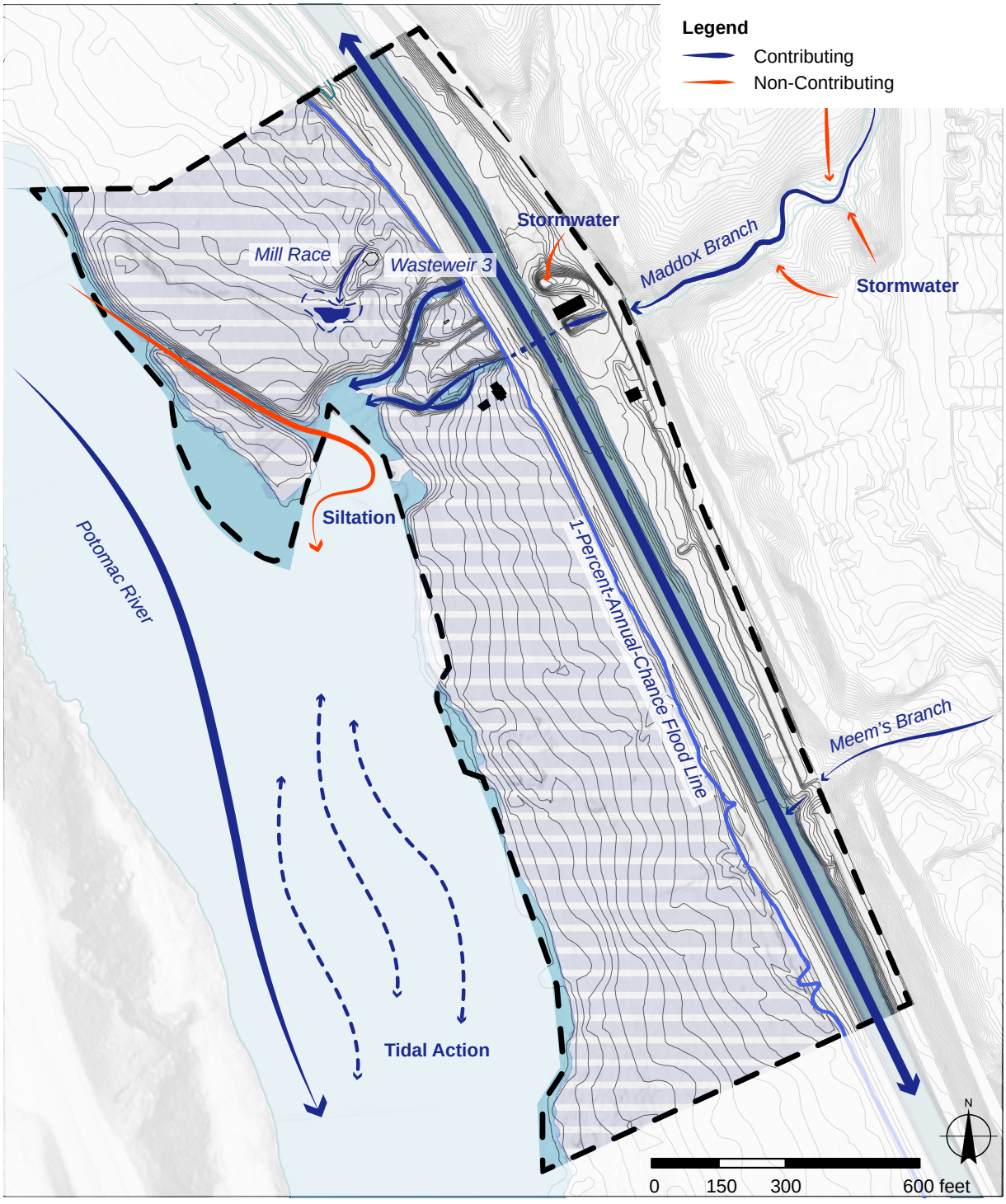
Geology and Soils

The Fletcher's Cove study area is located near the intersection of three physiographic zones: the Fall Line, Piedmont Plateau, and Atlantic Coastal Plains. The Fall Line occurs where the igneous bedrock of the Piedmont Plateau meets the sedimentary bedrock of the Atlantic Coastal Plains, resulting in rapids and waterfalls in the Potomac River. The Piedmont Plateau is characterized by large rocks and steep slopes and underlies the Palisades neighborhood to the east of the study area. The sandy, gravelly soils of the Atlantic Coastal Plains are present between the two other physiographic zones, occurring in the floodplain area of the Potomac River.[1]

The soils in the study area consist of naturally-formed sandy and silty loams in addition to dredge material from Fletcher's Cove and fill from other areas. There is evidence of severe erosion occurring in the study area, resulting from scouring of soils along paths and waterways by stormwater runoff and pedestrian movement off of prepared pathways. North of the culvert headwall, on the east side of the Fletcher's Road Culvert, water draining from Canal Road is carving into the steep slope and depositing rocks, gravel, and dirt into the narrow roadway. NPS is working with Federal Highways to solve drainage issues leading to this condition. On the west side of the culvert, a storm water pipe was damaged in a recent storm and stormwater has scoured the channel surrounding it, leading to an unsafe condition next to the roadway.

Hydrology

The study area is located in the tidal floodplain of the Potomac River in a zone known as the tidal Potomac and Estuary, which extends from the Chesapeake Bay north to Chain Bridge.[2] Fletcher's Cove occupies a sheltered location on the river's eastern bank and water levels are determined by river flows, tidal action, discharge from the C&O Canal Wasteweir, and the Maddox Branch entering from the east, which is impacted by stormwater runoff from uphill development. The Potomac River flows east from headwaters in the Allegheny Mountains of West Virginia, drawing from streams and rivers in the hills of Virginia and Maryland, to the Chesapeake Bay, which drains into the Atlantic Ocean. The Potomac River watershed encompasses 14,670 square miles and is largely forested, providing important habitat and recreation areas.[3] The 1-percent-annual-chance flood line runs through the study area along the base of the Capital Crescent Trail berm. Contributing and non-contributing hydrological features are identified in Drawing 3- 1, Hydrology Analysis Diagram.



Drawing 3-1. Hydrology Analysis Diagram (QE, 2022)

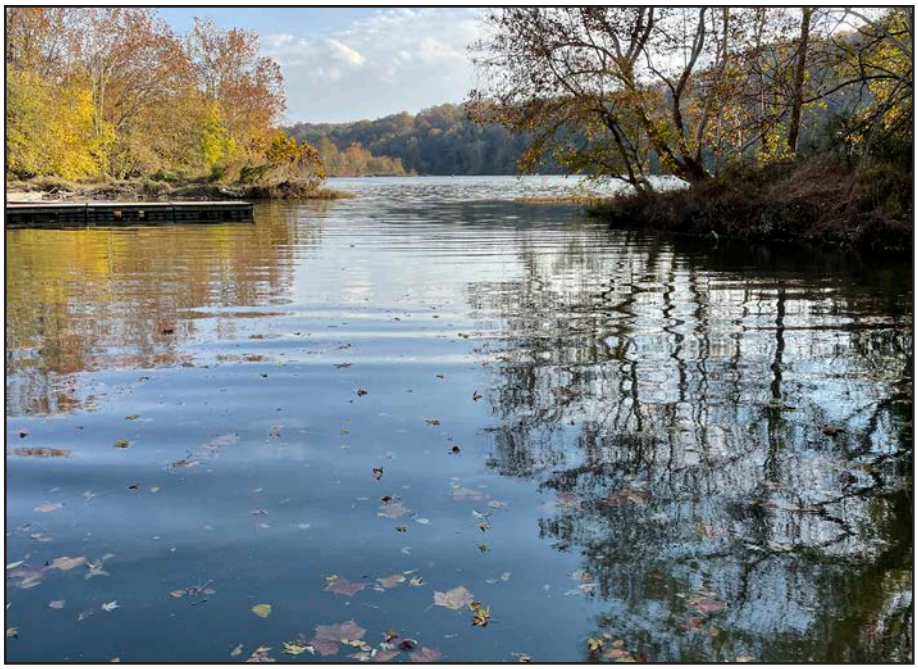


Figure 3-1. View from Fletcher's Cove across the Potomac River (QE, 2021)



Figure 3-2. The Maddox Branch flows between Fletcher's Road and the Battery Kemble Culvert (QE, 2021)

Climate

The climate at Fletcher's Cove includes hot, humid summers and cold, cloudy winters. Temperatures rarely descend below 20 degrees Fahrenheit or exceed 96 degrees Fahrenheit. While it rains throughout the year, the majority of annual precipitation occurs between April and August, with May generally being the wettest month.[4]

Climate projections for the C&O Canal National Historical Park indicate that rising temperatures, precipitation, and sea level rise can be expected as a result of climate change. The National Park Service expects that changes to temperature and hydrological regimes will impact cultural and natural features within the park. Flooding occurs every 12 years on average and is likely to increase. Sea level rise of 15–40 inches is expected in the region by 2100.[5]

Analysis

Natural systems and features were modified during the period of significance associated with transportation and commerce (1793–1924) as part of the development of the Potomac Company canals and C&O Canal. Today, natural systems and features are intact and appear much as they did historically. The bedrock underlying the study area remains and is visible at certain locations on site as well as the steep slopes east of the study area. The hydrologic systems that inspired the creation of the canals and boathouse remain intact. Sea level rise as a result of climate change will likely impact the site in terms of water level and flood events. Increased precipitation and intensity of precipitation events will require management to reduce erosion and water quality issues.

LAND USE

Existing Condition

Fletcher's Cove is a component of the C&O Canal National Historical Park. The primary land uses within the study area are recreation and interpretation, which are available through developed visitor facilities, as well as resource-based recreation associated with trails and waterways. Utility use has shaped the landscape at Fletcher's Cove as it relates to the Potomac Interceptor and power lines. Limited maintenance areas and circulation routes exist within the study area.

Popular recreational uses within the project area include walking, biking, running, boating, fishing, picnicking, and group gatherings. The Towpath Trail and Capital Crescent Trail are popular routes for commuters, joggers, cyclists, and sightseers. The Fletcher's Boathouse is open seasonally from mid-May through early September and rents kayaks, canoes, rowboats, stand-up paddle boards, and bicycles to its members and the general public. The boathouse also sells fishing licenses and anglers may fish from shore or by boat. Picnic tables and post-mounted grills are located along the waterfront for individual and group use. The trail that follows the shore of the Potomac River in the North Woods area is utilized by hikers, fishermen, and mountain bikers and visitors utilize the trail through the South Woods area for walking and hiking.

The Abner Cloud House and C&O Canal offer multiple opportunities for educational and interpretive use. As a part of the C&O Canal National Historical Park, waysides are provided throughout the site, especially within the Canal Corridor. Lines indicating floodwater depths are painted onto the side of the refreshment stand with their associated event years.

Utility use in the project area includes the Potomac Interceptor Odor Control Unit, electrical lines that follow Canal Road and provide electricity to the Abner Cloud House, comfort station/odor control facility, boathouse, and refreshment stand.

An area at the south end of the Abner Cloud House parking lot functions as a park maintenance area for short-term storage. Materials and equipment are stored here for use on site, such as fill, gravel, and the machine used for weeding in the Canal.

Analysis

While the modes of transportation have changed in some cases, transportation of goods remains an active use on site via Canal Road. When operational, tour boats have conveyed passengers from Georgetown to the Abner Cloud House and back. Recreational use of the site began in the early twentieth century and has remained consistent through the present, and this land use contributes to the historic significance of the study area.

Many of the historic land uses in the Fletcher's Cove study area are missing today. Agriculture occurred at various scales on site and was documented since the settlement of Europeans in the seventeenth century. It is unclear exactly when the cultivation of crops on site ceased, but land in the Riverfront Recreation LCA, used for cultivation in earlier centuries, transitioned to mostly recreational use by the 1950s. Residential use within the study area ceased in the 1950s, when the National Park Service acquired the parcel and demolished the remaining dwellings that formed the 4900 block of Canal Road NW, sparing only the Abner Cloud House for interpretation purposes.[6] Remnants of one structure remain along the Canal Road retaining wall between the Abner Cloud House and Culvert 159-C. Industrial use was a key driver to site development throughout the period of significance. Both the canals and the railroad were built to address the growing need for goods in Georgetown and Washington, DC. The mill complex, which operated in some fashion from 1821, ceased operations as an ice factory some time after 1895. Other industrial uses came and went, including a guano factory and fishery. Remnants from the study area's industrial past contribute to interpretation and are described as structures and small-scale features.

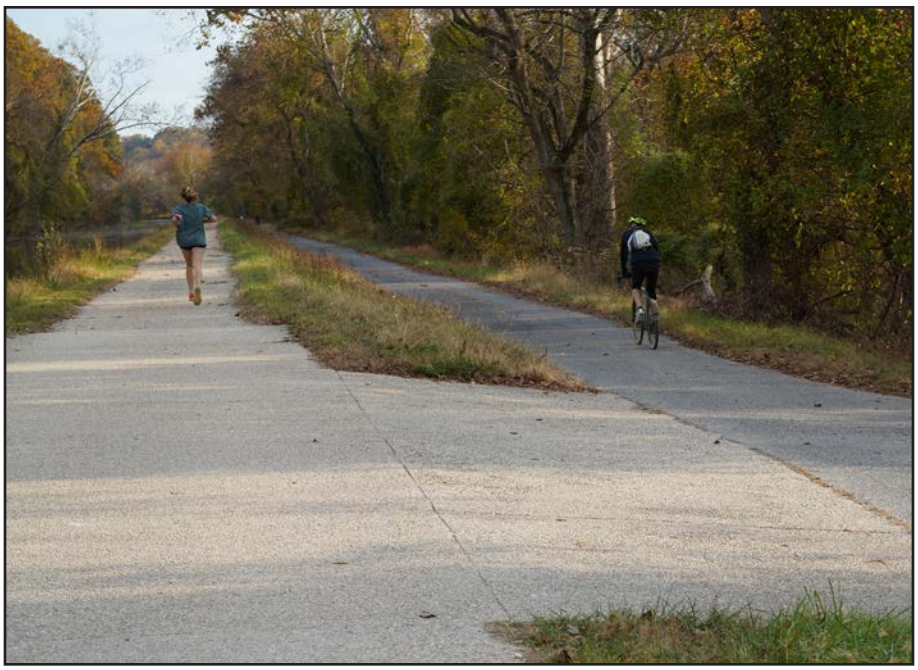


Figure 3-3. Jogging and cycling are two common recreational activites in the study area (QE, 2021)

TOPOGRAPHY

Existing Condition

The topography at Fletcher's Cove includes natural topography, conditions resulting from geologic and hydrologic history on site, and built topography, conditions resulting from human intervention at the study area. The site high point occurs at the intersection of Canal Road with Reservoir Road at approximately 57 feet above sea level. Low points occur at the Potomac River bank at the western edge of the site and depend on water levels and tidal action. Generally, the shoreline at Fletcher's Cove fluctuates between 1 and 3 feet above sea level.

Natural

The natural topography of Fletcher's Cove is a combination of steep slopes and gently undulating floodplain. The eastern border of the study area coincides with the toe of a steep slope that rises to the Palisades neighborhood. Exposed bedrock and patches of shallow soils support successional vegetation in this area and extend into the study area at points along the northeastern boundary between Canal Road and the C&O Canal.

In the floodplain, the landscape slopes gently toward the water and has a generally flat character from Fletcher's Cove to the southern boundary of the study area. Historically, floodwaters inundated this area and deposited alluvium, creating fertile soils utilized for agriculture. Topography in the South Woods conveys the natural topographic condition.

Built

Topography at the Fletcher's Cove study area has been manipulated for human use since at least the 1600s, with European and Euroamerican interventions beginning in the 1700s. Topography related to the C&O Canal will be described in detail in the Canal Corridor LCA. Built topographic features extant today include the retaining wall on the west side of Canal Road (Figure 3-4) and fill piles throughout the North Woods area. The stone retaining wall at Canal Road is described as a structure, but facilitates a topographic change of up to 20 feet between Canal Road and Fletcher's Road, the Abner Cloud House Parking area, and the natural topography of the site.

The Canal Corridor and Riverfront Recreation LCAs are separated by a berm constructed along the west side of the C&O Canal. Fletcher's Road connects the two areas via a roadbed that cuts through the constructed topography of the canal, passing through the Fletcher's Road Culvert before arriving at floodplain level.

The North Woods topography is undulating, reflecting piles of fill that were deposited there in conjunction with construction projects on site (Figure 3-5). A pool of standing water forms in the midst of these piles and at the southern end of the historic mill race (Figure 3-6). Regrading of the shoreline north of the cove raised the elevation of this area. Natural and historic features are partially or fully obscured by fill placed in the landscape.



Figure 3-4. Exposed bedrock meets the Canal Road retaining wall on Fletcher's Road (QE, 2021)



Figure 3-5. Undulating groundplane in the North Woods as a result of fill (QE, 2021)

Analysis

The unique natural systems and topography of the study area landscape allowed for the development of a transportation and commerce corridor parallel to the Potomac River. Canal Road was constructed in the late 1790s, taking advantage of the toe of the slope to the east of the study area, and maintains its historic alignment. The imposing west bank of the Potomac presents little possibility for development, but the flat floodplain condition along the east bank, along with the presence of streams such as the Maddox Branch, presented a favorable condition for canal development. Once the canal corridor was constructed, the railroad followed the established route. These routes are extant.

Both the natural and built topographic conditions within the study area contribute to the historic landscape in certain locations. The natural topography of the study area is legible as the intersection of the flat Potomac floodplain with the steep, rocky slopes of the Piedmont Plateau. As the site developed, the flat landscape with fertile soils was an important feature for agricultural and commercial use. The gentle slope between the river and canal corridor allowed for successful construction and supporting agricultural and commercial use. Today, the Riverfront Recreation LCA utilizes the flat topography for picnic grounds, boathouse parking, and river access. This condition extends through the South Woods and contributes to the historic character of the landscape. In the North Woods, fill material added after the period of significance has altered both the natural topographic condition and built topographic features. The historic mill race is visible southwest of the mill remnant and conveys the significance of the commercial landscape. The portion north of the remnant is missing due to fill. The initial sluiceway constructed in the mid-twentieth century is also missing. The heightened elevation of the North Woods area may be contributing to the altered hydrological regime in the cove as floodwaters can no longer spill over the north isthmus and flush excess sediment from the cove. Efforts to increase flow and flush sediment via a new sluiceway have so far been unsuccessful and dredging is required to maintain a functional depth.

There is a tangible delineation between the floodplain and the constructed berm that forms the western edge of the Canal Corridor LCA, where the topography was manipulated to create the canal prism and railroad bed (Figure 3-7). While the railroad is no longer extant and the towpath is no longer used as such, the topographic character conveys the design of the landscape around those features. Topography associated with the C&O Canal is described in detail as a part of the Canal Corridor LCA. Overall, the natural and built topography conveys the historic significance of the cultural landscape with the exception of parts of the

North Woods that have been significantly altered by fill material following the period of significance.

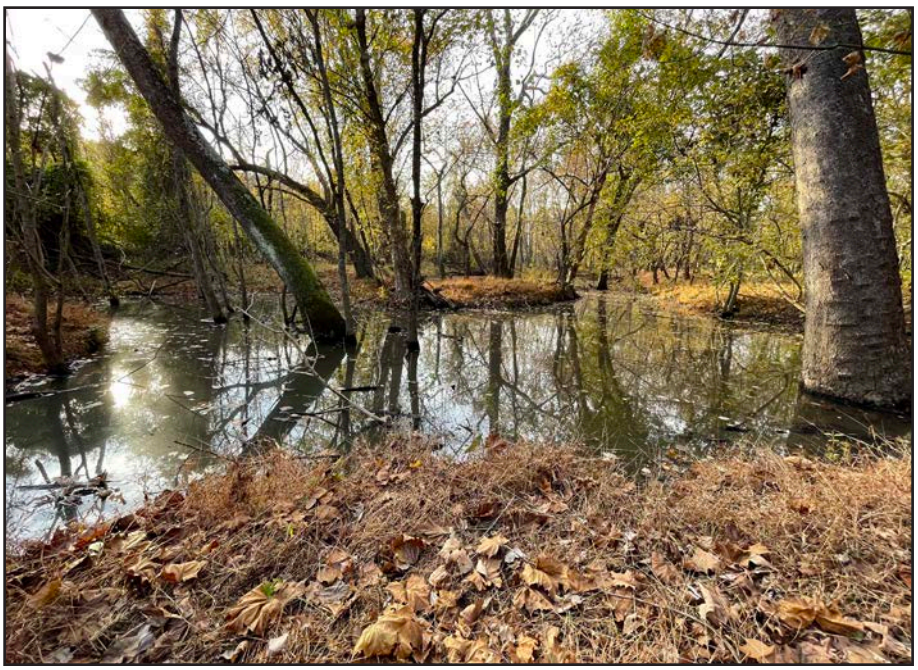


Figure 3-6. Standing water amidst altered topography in the North Woods (QE, 2021)



Figure 3-7. Stairs and a ramp convey visitors up and down the berm between the Canal Corridor and Riverfront Recreation Areas (QE, 2021)

SPATIAL ORGANIZATION

Existing Condition

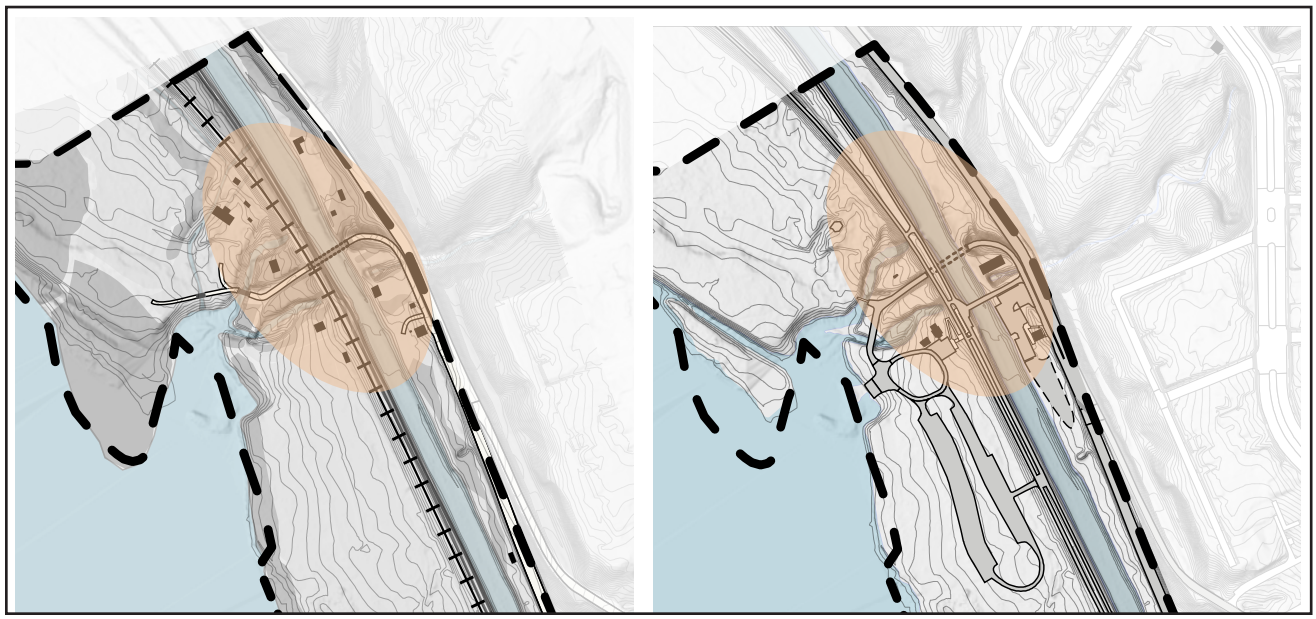
The spatial organization of the Fletcher's Cove study area is defined by natural systems and vegetation, constructed water features, circulation, and buildings and structures. The site is bounded by a steep slope with exposed bedrock and Canal Road to the east. The natural slope of the site is interrupted by built topography that defines the Canal Corridor LCA, which creates a strong north–south axis through the study area with extended views along the canal (Figure 3-8). The Riverfront Recreation LCA, defined by the towpath berm to the east and the Potomac River to the west, occupies flat floodplain topography and is characterized by an open, parklike character with sight lines to and across the Potomac River throughout. The course of the Potomac River runs north–south at the west edge of the study area. The North and South Woods areas are defined by their densely-vegetated character and lack of vehicular circulation routes.

Circulation routes define the east edge of the study area and determine how visitors move to and between LCAs. Vehicular access from Canal Road directs visitors to the primary access point for the Canal Corridor area at the Abner Cloud House and comfort station/odor control facility or through the Fletcher's Road Culvert to the picnic area and boathouse parking.

The direct visual relationship between Fletcher's Boathouse and Fletcher's Cove along this axis reinforces the connection between site location and use.



Figure 3-8. The C&O Canal, Towpath Trail, and Abner Cloud House facing north (QE, 2021)



Drawing 3-2. Spatial Organization at Fletcher's Cove during the period of significance, 1793–1966, encompassing an area of development including the mill, mill races, guano factory, and circulation associated with the canal and industrial buildings. The bubble on the left diagram illustrates the general location of the developed area at its height between 1826 and1938 and the right diagram illustrates this area overlaid on today's landscape (QE, 2022)

Analysis

Spatial organization contributes to the historic character of the study area. In particular, the linear corridor of the canal, and the space between the retaining wall along Canal Road (on the east) and the towpath (on the west), retains its historic linear character associated with transportion, commerce, and conservation. Also, the area between the boathouse and the Potomac River is an open space that retains its historic association with conservation.

During the period of significance, a broad spatial footprint of developed area was apparent, extending beyond the canal to encompass the mill, mill races, circulation, storage, outbuildings, and work areas associated with the canal and mill. In addition, some of the area was cultivated. The left diagram in Drawing 3-2 illustrates a general location of known development circa 1938. Today, the northern portion of this space is enclosed by woodland vegetation and no longer legible as the developed space present during the historic period.

CONSTRUCTED WATER FEATURES

Existing Condition

Constructed water features in the Fletcher's Cove study area include the C&O Canal, Wasteweir 3, remnants from the Potomac Company canal, a portion of the mill race, and the sluiceway cut through the riverbank north of Fletcher's Cove.

The C&O Canal is described in detail as a part of the Canal Corridor LCA. Wasteweir 3 releases water from the Canal into Fletcher's Cove by a ravine, which may have originally housed the 'new locks' of the Potomac Company canal (Figure 3-9). Water flows from the Canal prism, under the Towpath and Capital Crescent Trails, and through the North Woods area to Fletcher's Cove (Figure 3-10).

Traces of what may have been the mill race in the North Woods area are extant and run adjacent to a large stone foundation remnant in that area. Fill piles obscure the complete feature, but a piece of the mill race approximately 70 feet long of varying heights between 3 and 6 feet tall terminates in a shallow pool in the North Woods (Drawing 3- 1 and Figure 3-11).

A sluiceway constructed in the 1980s cuts through the north isthmus of Fletcher's Cove. It is approximately 425 feet long and has steep banks measuring about 10 feet tall. The upstream end of the sluiceway is largely blocked by fallen logs and a small flow of water reaches Fletcher's Cove at its terminus.



Figure 3-9. Wasteweir 3 conveying water from the C&O Canal (QE, 2021)

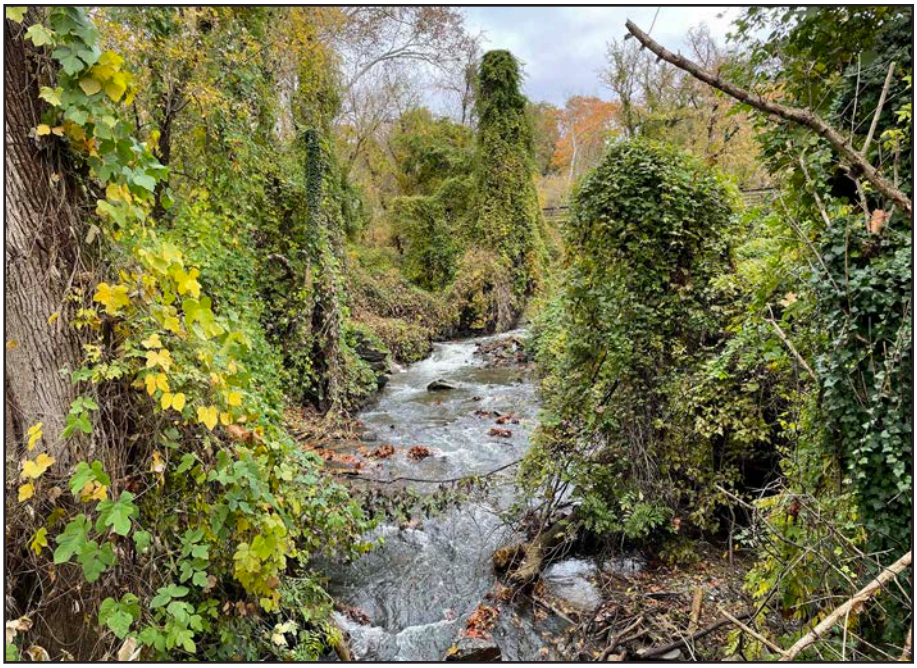


Figure 3-10. The ravine carries water from Wasteweir 3 to Fletcher's Cove (QE, 2021)

Analysis

The C&O Canal, Wasteweir 3, and remnants of both the Potomac Company Locks and Mill complex contribute to the character of the historic landscape. Construction of water features and their use has affected significant change of the study area landscape and the presence of the C&O Canal Prism and towpath, and waterways thought to be associated with the Potomac Company Canal (Maddox Branch as the location of the old locks and Wasteweir 3 as the location of the 'new locks') create a strong association with the history of transportation and commerce on site. The remaining piece of the historic mill race conveys the relationship between industrial activities during the period of significance, the canal corridor, and the Potomac River. The use of water from the canal was a critical piece of site development and while the physical connection between the mill race and adjacent waterways is missing, the extant piece conveys the historic character of the landscape (Figure 3-11).

A sluiceway cut through the North Woods area between 1951 and 1964 is missing. A new sluiceway, cut in the 1980s, is extant. It has not alleviated flow or siltation issues, which continue to threaten Fletcher's Cove, and detracts from the historic character of Fletcher's Cove. Overall, all of the water features constructed during the period of significance contribute to the historic character of the landscape and convey its significance in relation to the canal as a transportation corridor and hub of commercial activity.



Figure 3-11. Potential remnants of mill building and mill race in the North Woods (QE, 2021)

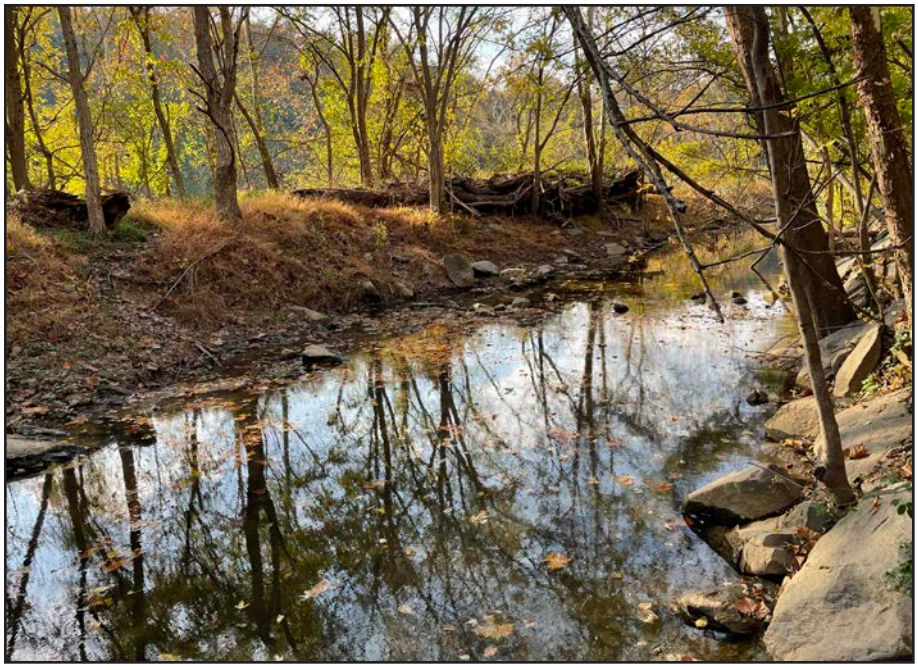


Figure 3-12. Sluiceway facing north (QE, 2021)



Figure 3-13. Flood debris such as fallen logs block the entrance to the sluiceway (QE, 2021)

CIRCULATION

Existing Condition

Circulation at the Fletcher's Cove project area is composed of vehicular, pedestrian, and water routes. Vehicular roads include Canal Road, Fletcher's Road, and the loop road through the parking area in the Riverfront Recreation LCA. Pedestrian circulation routes include concrete sidewalks, gravel paths, asphalt-paved paths, wood boardwalk, social trails, and stone and concrete steps. This section addresses the overall alignment of circulation, as well as public routes that connect through the project area. The remaining circulation features are described by landscape character area.

Canal Road, the Towpath Trail, and the Capital Crescent Trail follow a north–south alignment through the study area, parallel to the Potomac River to the west and the C&O Canal running through the center of the site. Social trails in the North and South Woods areas also run loosely parallel to the Potomac River, along the shoreline in the North Woods and between the shoreline and C&O Canal in the South Woods.

Drawing 3- 3, Circulation Analysis Diagram, illustrates circulation throughout the study area. Conflicts are described in detail in their respective LCAs.

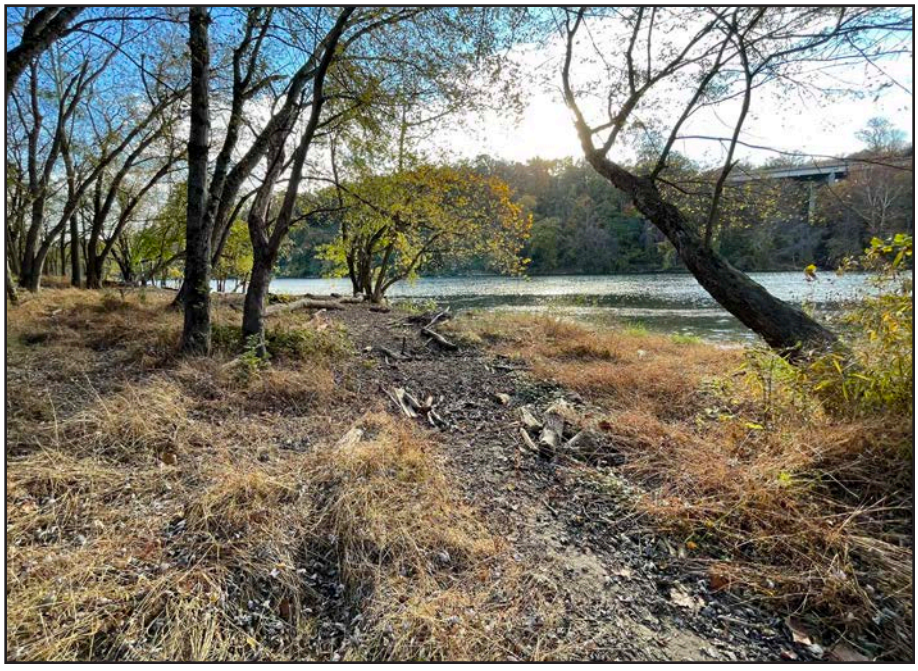
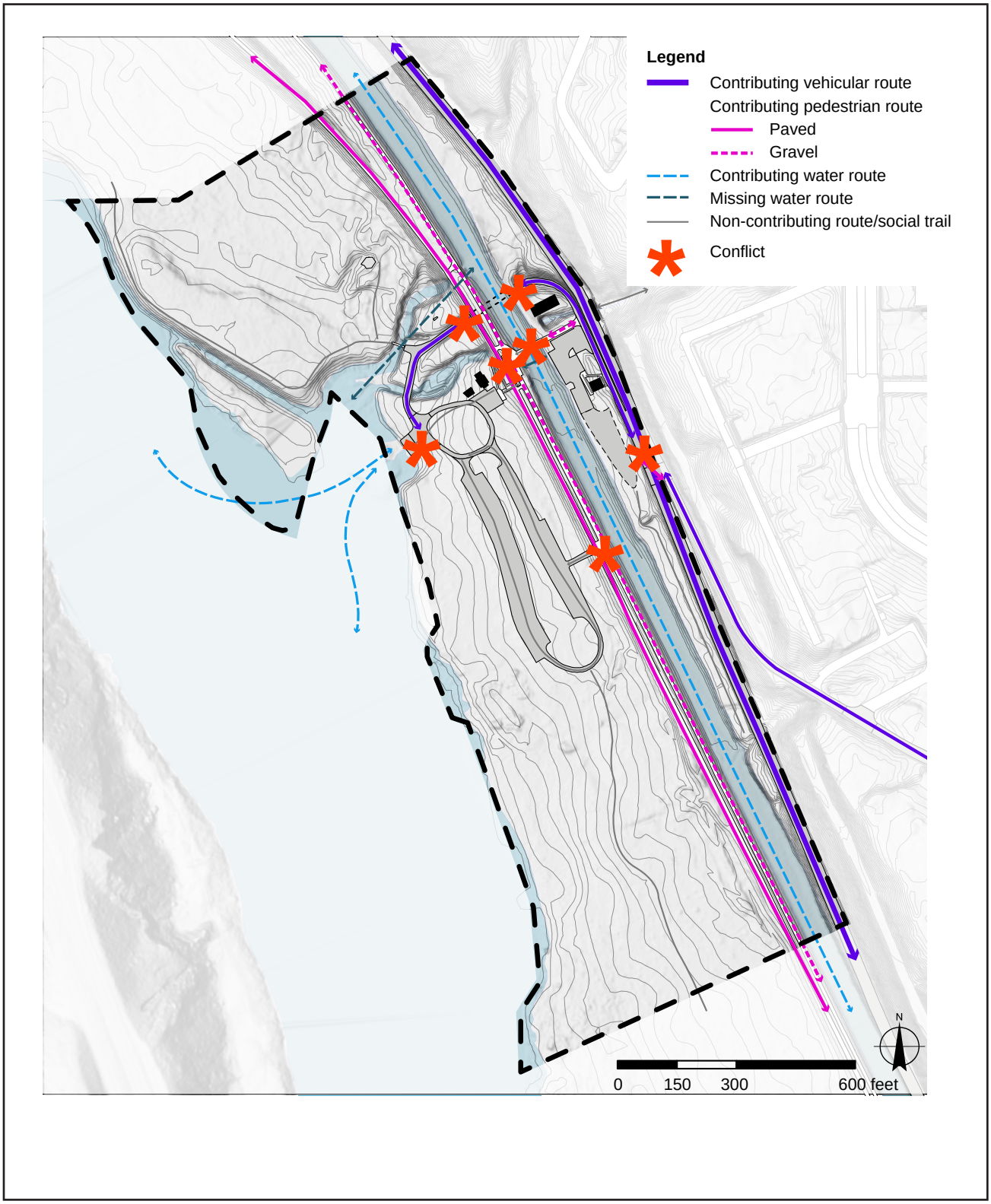


Figure 3-14. The social trail through the North Woods follows the shoreline and is utilized by anglers and hikers (QE, 2021)



Drawing 3-3. Circulation Analysis Diagram (QE, 2022)

Analysis

Contributing circulation routes in the study area include the C&O Canal, Towpath Trail, Capital Crescent Trail, Canal Road, and Fletcher's Road. Canal Road and Fletcher's Road occupy their historic alignment and continue to operate as vehicle circulation. A vertical extension was added to the Canal Road retaining wall in the 1990s, but does not detract from the wall as a historic feature.

The C&O Canal and Towpath Trail maintain their historic locations and are utilized for pedestrian and water-based circulation along historic routes with recreational use of the canal and towpath began as early as 1909. The Capital Crescent Trail occupies the B&O Railway bed and is utilized for pedestrian circulation along the historic railway route. These vehicular, pedestrian, and water routes convey the significance of the study area as a transportation corridor.

Water-based circulation on the C&O Canal has changed since the period of significance. With the addition of the pedestrian bridge, canal boats can no longer continue past this point on the canal. Tour boats can be operated from Georgetown to the Abner Cloud House, but canal boat circulation beyond the bridge is missing. Fletcher's Boathouse historically ferried customers across the canal to access the cove and rental boats. This circulation route is also missing. Social trails through the North and South Woods areas do not contribute to the historic landscape but are compatible with the landscape's significance for conservation (Figure 3-15 and Figure 3-16). Trampling of the landscape surrounding social trails is problematic in areas of higher use. Overall, circulation routes through the study area follow historic patterns and allow visitors to experience the site in a way that reflects historic conditions.



Figure 3-15. The South Woods social trail begins at the south end of the parking area (QE, 2021)



Figure 3-16. The South Woods social trail is a single track that continues south along the floodplain (QE, 2021)

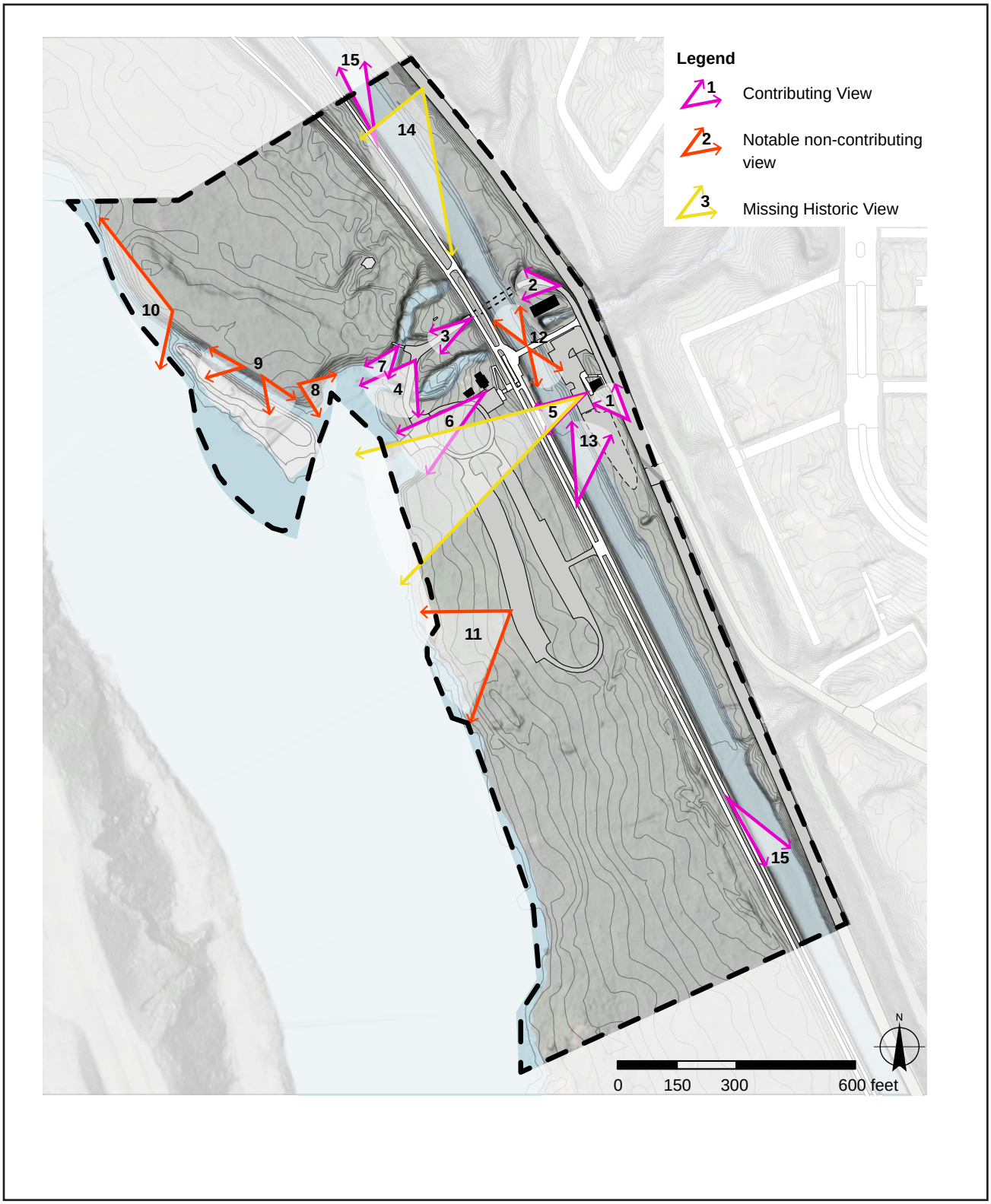
VIEWS

Existing Condition

Views throughout the Fletcher's Cove study area focus on features within and outside of the study area landscape and vary based on elevation and vegetation. Primary focal points for views within the study area include: the Abner Cloud House, Fletcher's Boathouse, the C&O Canal, Wasteweir 3, and Fletcher's Cove. Key focal points outside the study area include: the Potomac River and its western bank, extended views of the C&O Canal, and the hillside of the Palisades neighborhood.

The arrival sequence from Canal Road down Fletcher's Road and through the culvert is a unique experience of contracting and expanding views as visitors move down through the historic landscape and emerge at the shores of Fletcher's Cove. Beginning at the Abner Cloud House overlooking the canal, visitors then drop down into the landscape, enclosed by the stone retaining wall to the east (Figure 3-17). Views are constricted as visitors pass through the culvert (Figure 3-18) and open up slightly to dense vegetation beyond (Figure 3-19). Finally, as visitors emerge into Fletcher's Cove, views open up to the cove and river and the length of the picnic area (Figure 3-20). Views in the North Woods are limited by dense woodland vegetation with the exception of the shoreline, where they extend across the sluiceway and Potomac River (Figure 3-25, Figure 3-26).

Drawing 3-4 illustrates locations of views that contribute to the historic character of Fletcher's Cove, as well as views that are notable today but not necessarily historic, and places where views were important during the historic period but do not exist today. Views 1 through 11 are illustrated in Figures 3-17 through 3-27 in this section. Views 12 through 15 are associated with the Canal Corridor LCA and are described in that section and illustrated in Figures 3-44 through 3-46. Views 4, 6, 7, 8, and 11 are associated with the Riverfront Recreation LCA and are described in that section.



Drawing 3-4. Views Analysis Diagram (QE, 2022) Views are illustrated in both the overall and LCA sections



Figure 3-17. View 1 approaching the Abner Cloud House entering Fletcher's Road (QE, 2021)



Figure 3-18. View 2 approaching the Fletcher's Road Culvert (QE, 2021)



Figure 3-19. View 3 emerging from the culvert, enclosed by vegetation (QE, 2021)



Figure 3-20. View 4 crossing the Maddox branch, opening up to the cove and river beyond (QE, 2021)

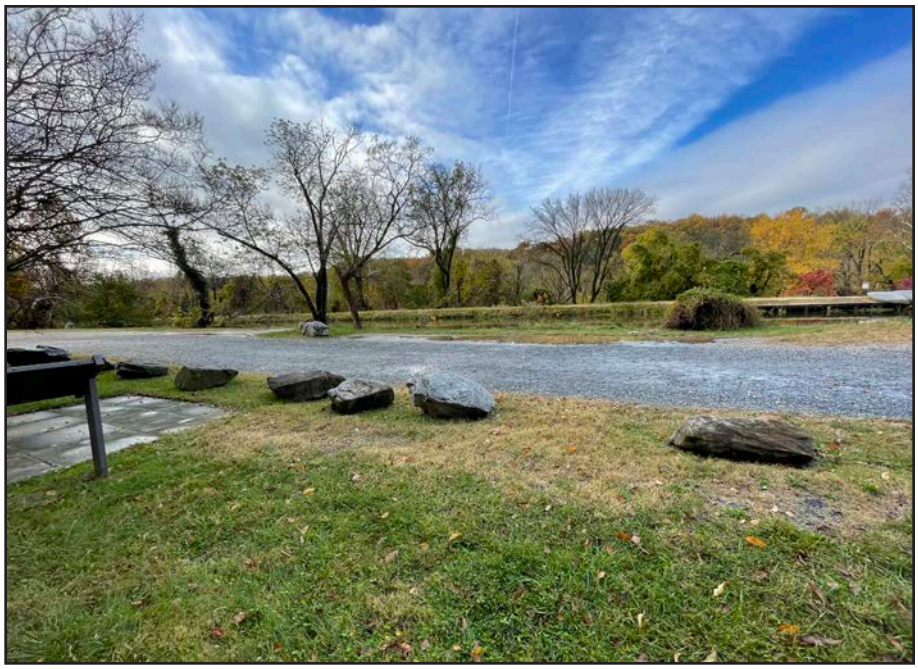


Figure 3-21. View 5 from the Abner Cloud House facing west across the canal (QE, 2021)



Figure 3-22. View 6 from Fletcher's Boathouse to Fletcher's Cove (QE, 2021)



Figure 3-23. View 7 from the pedestrian bridge to the stone lock remnants, facing west (QE, 2021)

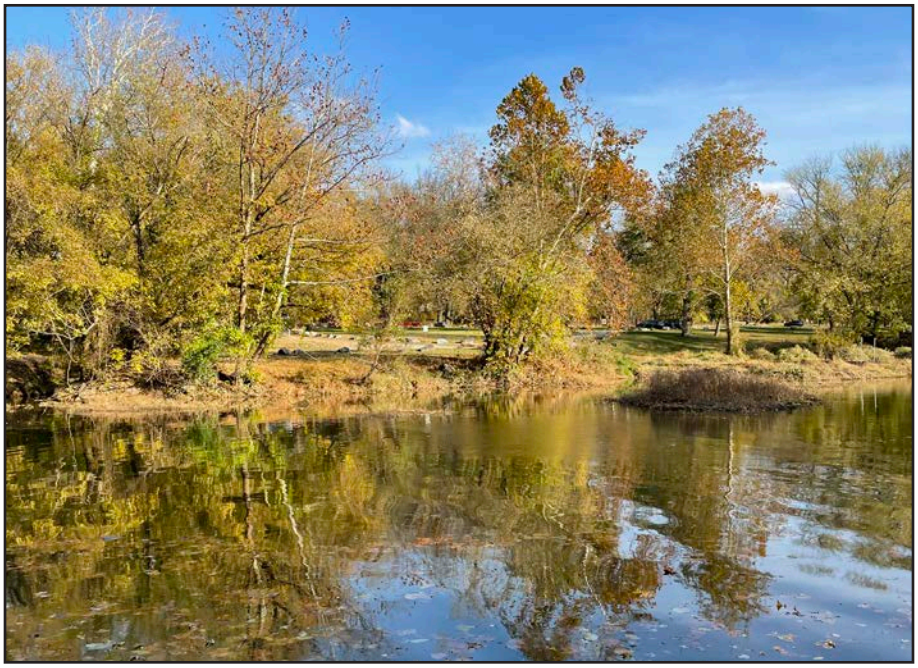


Figure 3-24. View 8 from the north isthmus looking east across Fletcher's Cove (QE, 2021)



Figure 3-25. View 9 facing west across the sluiceway (QE, 2021)



Figure 3-26. View 10 from the east bank of the Potomac River in the North Woods looking west (QE, 2021)



Figure 3-27. View 11 across the picnic area to the Potomac River, facing southwest (QE, 2021)

Analysis

Contributing views in the study area include the arrival sequence along Fletcher's Road to Fletcher's Cove (Figure 3-17-Figure 3-20), views north and south along the canal, and views between the Abner Cloud House and the canal.

Prior to European settlement, the floodplain area was likely forested and views up and down the Potomac River were accessible from points of higher elevation, such as the hillside east of the study area, and within the river corridor. During the period of significance, forests were cleared to accommodate transportation, agriculture, and industry. Views within the study area were expansive, with strong visual connections to the river. Today, visual connections from Canal Road NW and the Abner Cloud House to the Potomac River are missing due to the dense growth of successional vegetation.

Non-contributing notable views are present along the shoreline of the Potomac River in both the North Woods and Riverfront Recreation areas. The pedestrian bridge provides visitors with notable views north and south along the canal, but impedes longer views along the canal from the Abner Cloud House and Towpath Trail.

VEGETATION

Existing Condition

In general, vegetation character at Fletcher's Cove is either open or wooded. Open areas are composed of mown lawn and vegetation and correspond to places in the study area that are heavily used for recreation or related to historic uses such as the Towpath Trail. Open vegetation areas include the canal corridor surrounding the canal prism and berm, the areas adjacent to Fletcher's Boathouse, and the picnic area. Mown lawn is generally comprised of turf grass species and naturalized mown areas contain a variety of native and naturalized species. Places that are not regularly mown in the study area, for example the landscape between Fletcher's Road and Wasteweir 3 where remnants of the guano factory are extant, are overrun with vines such as wisteria (*Wisteria spp.*). Refer to Drawing 3-5's lower-right diagram.

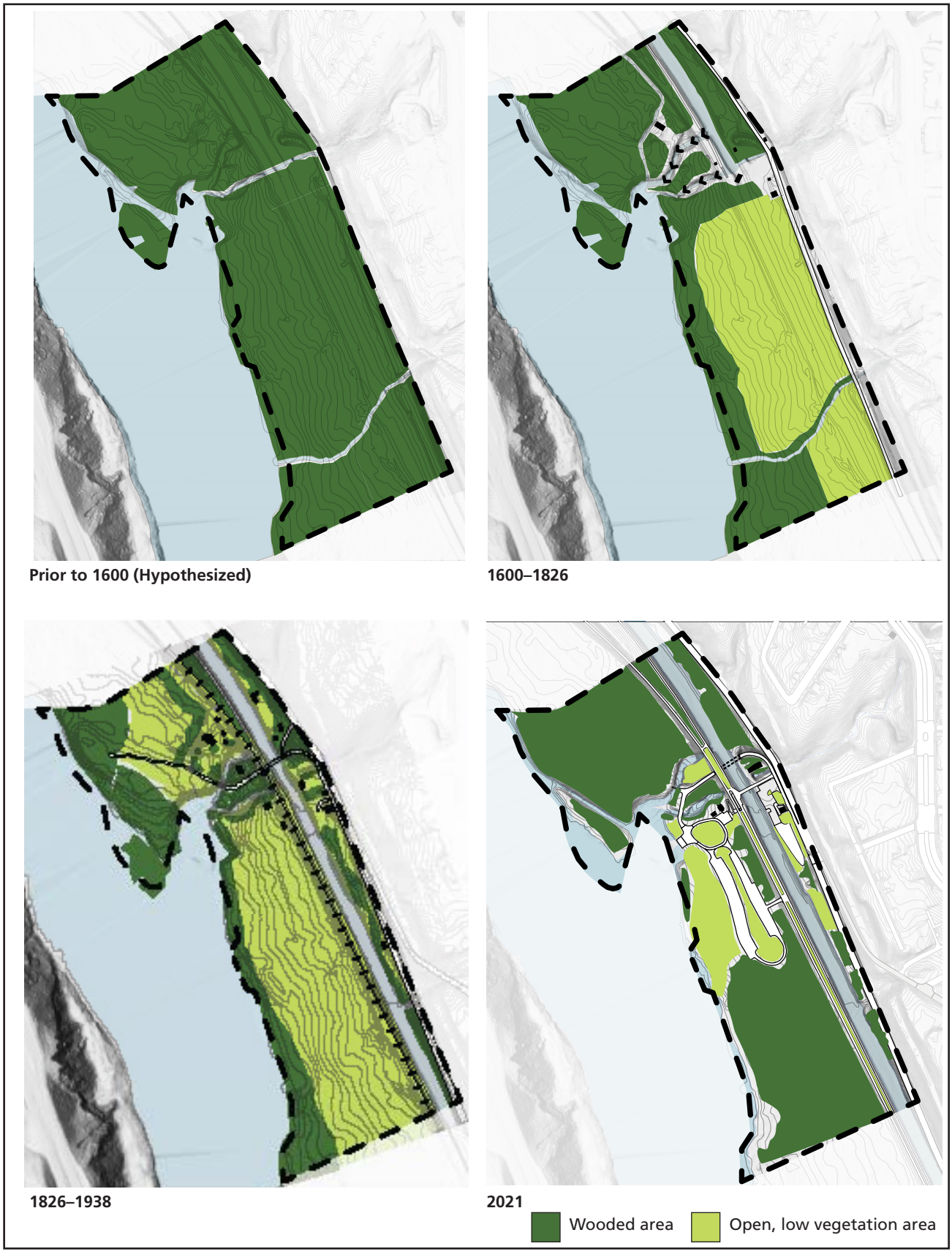
Wooded areas include the North and South Woods, the east side of the C&O Canal, and successional woody vegetation on the west side of the Capital Crescent Trail and surrounding the Maddox Branch. Wooded areas can be loosely described as a combination of Piedmont Mesic Mixed Hardwood and Basic Mesic Hardwood Forest types, which include American beech (*Fagus grandifolia*), oaks (*Quercus spp*), American sycamore (*Platanus occidentalis*), and tuliptree (*Liriodendron tulipifera*) in the canopy. Understory shrubs include pawpaw (*Asimina triloba*), northern spicebush (*Lindera benzoin*), American basswood (*Tilia americana*), and American hornbeam (*Carpinus caroliniana*). Some large sycamores in the wooded areas may date to the period of significance and their locations are identified on the Existing Condition Drawing EC-1.

Early-successional areas such as the regraded landscape around the sluiceway in the Potomac River have a much more open wooded character with a higher concentration of grasses such as northern sea oats (*Chasmanthium latifolium*) and pioneer trees like sycamore, silver maple (*Acer saccharinum*), boxelder (*Acer negundo*), and black locust (*Robinia pseudoacacia*). Detailed vegetation information is described by the LCA.

Analysis

Comparison of vegetation present prior to the development of the site, during the period of significance, and today reveals general vegetation changes. In general, mown vegetation and successional woodland contribute to the historic character of the cultural landscape.

Drawing 3-5 illustrates broad changes in vegetation patterns prior to the period of significance, during the historic periods, and today. Archeological evidence



Drawing 3-5. Vegetation Analysis Diagram (QE, 2022)

of woodworking tools suggests that prior to European settlement, the landscape included forested areas.[7] Without regular clearing, it's likely forest would have covered the landscape. Throughout the period of significance, development and flood events resulted in disturbance of this forest community and created a high concentration of early successional species such as American sycamore (*Platanus occidentalis*) in the study area, of which large specimen trees are visible at sites of landscape change such as the mill site in the North Woods and near foundation remnants in the 4900 block east of the canal (Figure 3-28).

Today, vegetation cover is closely related to maintenance. Landscape that is mown regularly retains a lawn character and supports active use. Areas that are not regularly maintained through mowing have a successional woodland character. Mown areas that support historic character, such as those around the Towpath Trail and throughout the Riverfront Recreation LCA, convey the historic character



Figure 3-28. Large sycamore located east of the canal (QE, 2021)

of the landscape. Successional woodland that has not been disturbed since the period of significance reflects the native woodland character likely present prior to and during the period of significance. Disturbances like the construction of the new sluiceway resulted in a less-advanced successional condition that does not reflect the historic character of the landscape.

BUILDINGS AND STRUCTURES

Existing Condition

Overall, building locations in the study area relate to historic land uses and their locations have largely determined the evolution of site circulation. The only structures outside the Canal Corridor and Riverfront Recreation LCAs are the steel and wood pedestrian bridge that spans the water flowing from Wasteweir 3, a concrete and stone remnant likely from a former residence, and the mill structure remnant (conjecture). The pedestrian bridge is approximately 4 feet wide and constructed of wood timbers supported by steel I-beams, likely remaining from a vehicular bridge used during construction of the sluiceway in the 1980s (Figure 3-29). There are four steel I-beams, two of which are used to support the bridge. Masonry abutments supporting the bridge are potentially remnants from the Potomac Company "new locks" (conjecture).

A large stone foundation remnant is located near the likely mill site in the North Woods and is accessed by a small informal footpath. The L-shaped remnant is of stone construction and includes a corner of what may have been the mill building (Figure 3-30). The remnant is 12 feet, 8 inches long on one side, with wall height



Figure 3-29. A wooden pedestrian bridge provides access to the North Woods and is constructed on repurposed steel I-beams (QE, 2021)

reaching 4 feet, 8 inches at its tallest point. On the other side, the wall measures approximately 9 feet, 8 inches before terminating into the slope. The walls are 3 feet wide throughout.

Between Fletcher's Road and Wasteweir 3 a series of concrete and stone features remain, likely from the guano factory located on site by at least 1878. These remnants include a stoop made of board-formed concrete with some areas of stone veneer, measuring 11 feet 4 inches across and consisting of a 3-foot tall half wall and a set of four steps curving up to a 5-foot 9-inch platform with holes likely for a metal handrail. One stone and concrete pillar is located north of the stoop and short lengths of foundation concrete can be detected around the remnants before they are completely concealed by vines. The remaining buildings and structures in the study area are described in detail by the LCA.

Analysis

During the period of significance, a variety of buildings and industries were located in the North Woods area. The mill complex was operational from 1821 and the configuration of buildings, wheels, and races associated with it changed over the course of the mill's use. Though incomplete, the alignment of the stone foundation remnant with the linear channel conveys the significance of this structure as a part of the history of commerce in the landscape. It is possible that other stone and iron remnants, described as small-scale features, were at one time related to this or other structures historically located around the mill.



Figure 3-30. The corner of the stone foundation remnant, likely part of the mill (QE, 2021)

The concrete and stone stoop and remnants correspond to the location of the guano factory on an 1878 map, coinciding with a period of increased and diversified industrial use in the study area at the height of canal operations. While this area is currently misrepresented as the mill location, the factory remnants retain integrity of design, materials, and association and convey the presence of industrial activities on site during the period of significance. Remnants of other buildings and structures located in the North Woods area during the period of significance are present and are described as small-scale features.

SMALL-SCALE FEATURES

Existing Condition

The Fletcher's Cove study area contains numerous small-scale features, most of which are modern additions that provide interpretive and recreational functions on the site. Prominent features include: picnic tables, grills, signage and waysides, railings, boulder edging, and benches. The majority of small-scale features are located in the Canal Corridor and Riverfront Recreation LCAs and are described as a part of those areas.

The North Woods trails provide access to the shoreline for fishing and hiking as well as the mill and mill race remnants for interpretation. There is one wayside in this area that depicts the location of the Johns'/Edes' Mill. This information is incorrect as the remnants at this location are possibly from the guano factory or a later residence located at this site (See Figure 2-20). Remnants of development from the period of significance that are extant but not traceable to specific buildings and structures can be interpreted as small-scale features. These include:



Figure 3-31. A steel I-beam attached to a stone and concrete remnant in the North Woods (QE, 2021)

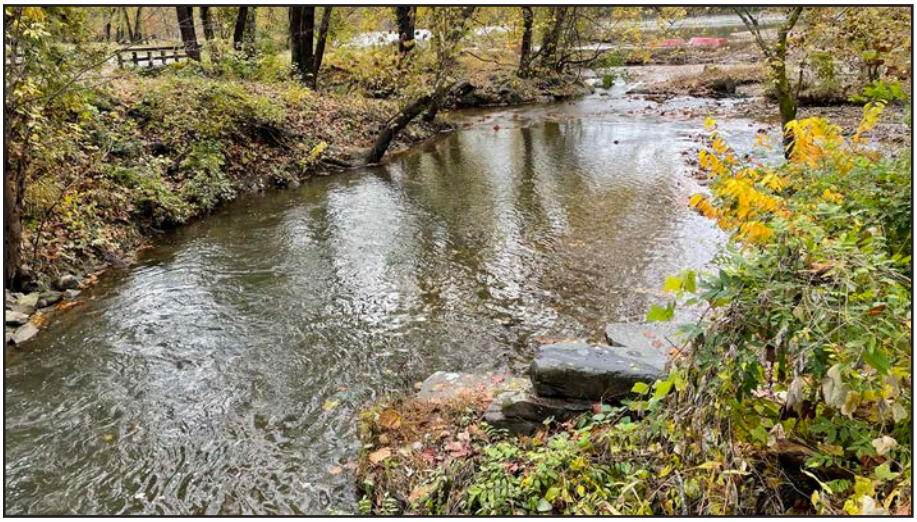


Figure 3-32. A stone and concrete remnant, possibly from the "new locks" downstream of Wasteweir 3 (QE, 2021)

- I-beam and concrete remnant (Figure 3-31)
- Millstone piece
- Concrete factory/residence structure remnant
- Stone with concrete grout remnants
- Stone remnants from Potomac Company 'new locks' (conjecture) (Figure 3-32)

Analysis

In general, small-scale features in the North Woods area retain integrity of setting and materials. While the exact locations of the whole structures are not apparent, the features are clearly related to historic construction on site and convey their significance as elements of historic structures.

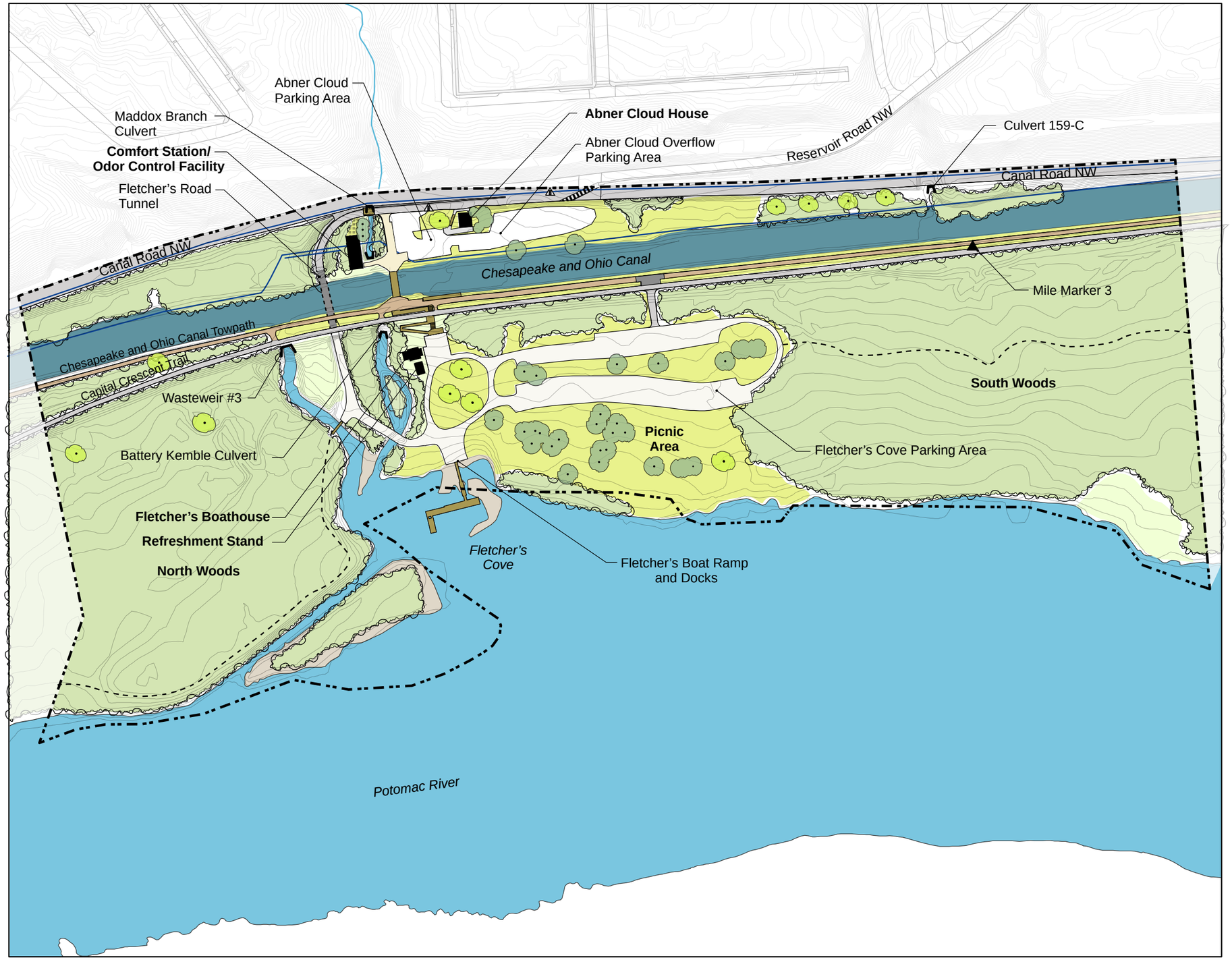
ARCHEOLOGICAL SITES

Existing Condition

The Fletcher's Cove study area possesses ruins and remains of historic occupation and use for more than 200 years. Artifacts and features are likely extant below grade that are connected to industrial, transportation, recreation, and domestic use. Additionally, the study area contains archeological evidence that provides important information about the early inhabitants of the Washington, DC, region, including middens catalogued at the Fletcher's Boathouse site (51NW13).

Analysis

Archeological features present in the study area contribute to the understanding of the historic landscape. Artifacts encountered during the construction of the pedestrian bridge concrete abutments confirmed that features are buried beneath many layers of alluvial soils and may be present in other locations throughout the study area. Projects that involve excavation should work in collaboration with archeologists.



Chesapeake and Ohio Canal National Historical Park

Fletcher's Cove

Overall Study Area

Legend

- Study Area Boundary
- Roads (Asphalt)
- Roads (Gravel)
- Pedestrian Path (Gravel)
- Towpath Trail
- Capital Crescent Trail
- Concrete surface
- Wooden Feature
- C&O Canal
- Stream or River
- Building
- Mile Marker
- Weir/Culvert
- Potomac Interceptor
- Wooded Area
- Tree
- Large Specimen Tree
- Shrubs and Grasses
- Mown Lawn
- Mudflat
- Contour (2 ft)
- Permeable Pavers

Sources

1. Road, building, trail, hydrology and contour data from National Park Service, DC Geodatabase
2. Drawing by Quinn Evans, ArcMap 10.8

0 100 200 400 Feet

1 inch = 200 feet

N

	October 2022	EC-1

Drawing EC 1. Existing Conditions, Overall Study Area

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CANAL CORRIDOR EXISTING CONDITIONS & ANALYSIS

This section describes the existing conditions of the Canal Corridor LCA, organized by landscape characteristic. The Canal Corridor LCA is characterized by a strong north–south axis related to Canal Road NW and the C&O Canal. The open character of vegetation around the canal allows for views along the corridor, inclusive of historic structures such as the Abner Cloud House. This area is illustrated on Drawing EC-2 and Table 3-2 lists contributing and non-contributing features of the historic landscape.

Table 3-2. Canal Corridor Contributing and Non-contributing Landscape Features

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	SIGNIFICANCE CRITERION AND AREA	FMSS LOCATION ID / FMSS ASSET ID
SPATIAL ORGANIZATION			
Relationship of landscape features to north–south axis of C&O Canal, Canal Road NW, Potomac River	C	Criterion A: *Transportation, Conservation*	*N/A*
Cluster of structures around the canal	M	Cluster of buildings related to transportation and commerce aren't represented in interpretation	*N/A*
CONSTRUCTED WATER FEATURES			
Canal topography	C	Criterion A: *Transportation*	*7254*
Canal prism	C	Criterion A: *Transportation*	*7254*
Canal towpath	C	Criterion A: *Transportation*	*7253*
Wasteweir No. 3	C	Criterion A: *Transportation*	*7254 / 19852*
Fletcher's Road Culvert	C	Criterion A: *Transportation, Commerce, Conservation*	*78564*
Maddox Branch Culvert	C	Criterion A: *Transportation*	*Consider adding location record if park conducts active, recurring maintenance.*
Battery Kemble Culvert	C	Criterion A: *Transportation*	*226938*
Culvert 159-C	C	Criterion A: *Transportation*	*Consider adding location record if park conducts active, recurring maintenance.*
Potomac Interceptor	NC	Built in the early 1960s	*N/A*
CIRCULATION			
Canal Road NW	C	Criterion A: *Transportation*	*N/A*
Towpath Trail	C	Criterion A: *Transportation*	*7253*

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	SIGNIFICANCE CRITERION AND AREA	FMSS LOCATION ID / FMSS ASSET ID
Capital Crescent Trail (on B&O Railroad ROW)	C	Criterion A: *Transportation*	*7260*
Fletcher's Road	C	Criterion A: *Transportation, Commerce*	*80856*
Wooden stairs and ramp	NC	Added in the 1990s	*Consider adding record if park conducts active, recurring maintenance.*
Wood and gravel stairs at Abner Cloud House	NC	Added after 1966	*Consider adding asset record to the Fletchers Grounds Area maintained landscape location*
Bluestone paving at Abner Cloud House	NC	Added after 1966	*Consider adding asset record to the Fletchers Grounds Area maintained landscape location*
C&O Canal (canal boat circulation)	M	Criterion A: *Commerce, Transportation, Conservation*	*7254*
VIEWS			
From Canal Road overlooking Abner Cloud House and canal	C	Criterion A: *Transportation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Canal Road to Potomac River	M	Obscured by vegetation	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Abner Cloud House to canal	C	Criterion A: *Transportation, Conservation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Abner Cloud House to Potomac River	M	Criterion A: *Conservation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Towpath Trail to Abner Cloud House	C	Criterion A: *Transportation, Conservation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Pedestrian Bridge looking up and down the canal	NC	Added in the 1980s (current bridge 1990s)	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From Abner Cloud House to Fletcher's Boathouse	M	Obscured by vegetation	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	SIGNIFICANCE CRITERION AND AREA	FMSS LOCATION ID / FMSS ASSET ID
VEGETATION			
Abner Cloud House ornamental plantings	U	Planting date uncertain	*7259 / 1169557*
Mown lawn	C	Criterion A: *Conservation*	*7259 / 1169557*
Mature woods	C	Criterion A: *Conservation*	*7259 / 1169557*
Woods	NC	Woody vegetation established after 1966	*7259 / 1169557*
BUILDINGS & STRUCTURES			
Abner Cloud House	C	Criterion A: *Conservation*	*7256*
Comfort station	NC	Completed in 2013	*7257*
Canal Road retaining wall	C	Criterion A: *Commerce, Transportation*	*Consider adding asset record to the Canal Road location*
Maddox Branch Vehicular Bridge	C	Criterion A: *Transportation*	*80697*
Pedestrian Bridge over canal	NC	Added in 1980s and rebuilt 1998	*106619*
Wooden boat storage dock	C - feature is contributing, dock itself is not historic fabric	Criterion A: *Transportation, Conservation*	*Consider adding record if park conducts active, recurring maintenance.*
SMALL-SCALE FEATURES			
Park signs (2)	NC	Added after 1966	*80874*
Parking area signs	NC	Added after 1966	*80874*
Wood edging	NC	Not part of historic fabric	*7259 / 1000356*
Boulder edging	NC	Added after 1966	*7259 / 1000356*
Concrete bin blocks	NC	Added after 1966	*7259 / 1000356*
Waysides	NC	Added after 1966	*7259*
Bike racks	NC	Added after 1966	*7259*
Wooden fence	NC	Added after 1966	*7259*
Manhole covers (Potomac Interceptor)	NC	Added in the early 1960s	*N/A*
Power poles, overhead wires	NC	Added in the early 1960s	*N/A*
Mile marker	NC	Added after 1966	*7253*
Traffic light	NC	Added in 2015	*Consider adding asset record to Fletchers Boathouse Access Road location*
Pedestrian crossing	NC	Added in 2015	*Consider adding asset record to the Canal Road location*
Culvert clearance signage	NC	Added after 1966	*7259*
Electric utility box (2)	NC	Added after 1966	*N/A*

CANAL CORRIDOR SPATIAL ORGANIZATION

Existing Condition

Spatial organization in the Canal Corridor LCA is strongly aligned with a north–south orientation defined by the canal and towpath (Figure 3-33). The LCA is organized around the roughly parallel circulation routes of Canal Road, the C&O Canal, Towpath Trail, and Capital Crescent Trail. The open vegetation character surrounding the Abner Cloud House and parking area, pedestrian bridge, and Towpath Trail allows for expansive views along an east–west axis from the hillside of the Palisades neighborhood, across the canal to the boathouse and river (Figure 3-34).

Analysis

The organization of the Canal Corridor LCA, in its historic location following established routes of transportation through the study area, strongly conveys its significance.

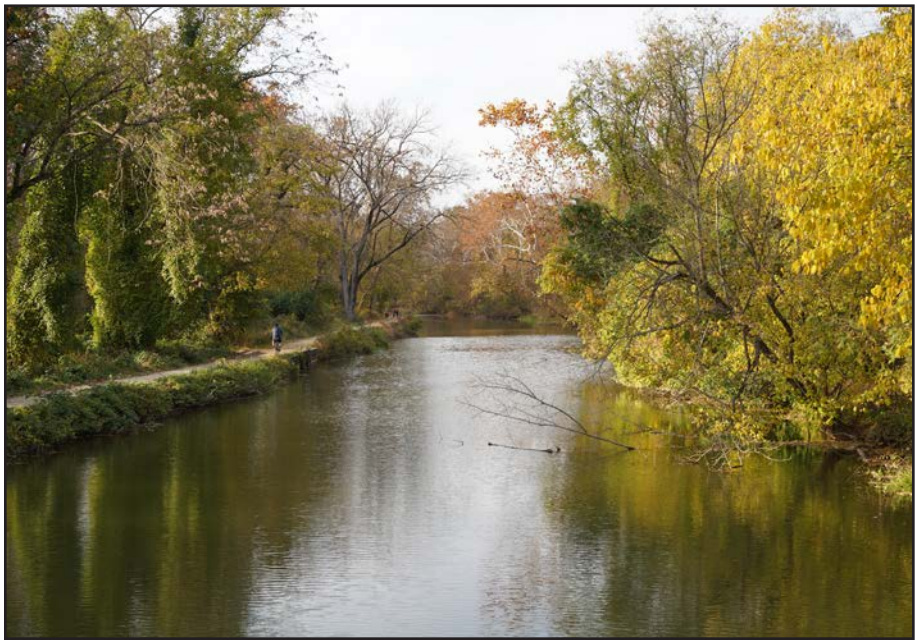


Figure 3-33. The canal and towpath from the pedestrian bridge, facing north (QE, 2021)

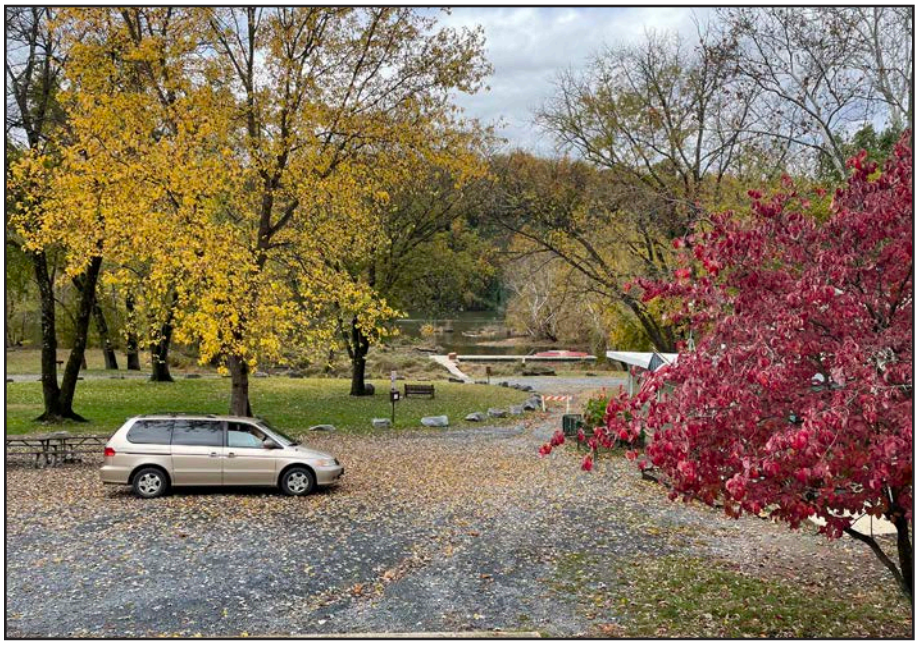


Figure 3-34. Visual connection between the Capital Crescent Trail and Fletcher's Cove at the pedestrian ramp and stairs (QE, 2021)

CANAL CORRIDOR CONSTRUCTED WATER FEATURES

Existing Condition

The Canal Corridor LCA is defined by the C&O Canal prism, towpath, and structures. The canal prism is watered and its banks are largely intact. The canal water level within the study area is maintained by Wasteweir 3. Water leaving the canal prism via the wasteweir travels west under the pedestrian bridge and enters Fletcher's Cove and the Potomac River. Within the study area, the canal is fed by the water entering through Culvert 159-C.

Canal Topography

The construction and use of the C&O Canal shaped the topography of the study area by manipulating the existing topography to create the conditions necessary for a functioning canal. The extant topography from canal construction and use includes the canal prism, the towpath berm, and the slope to the Riverfront Recreation and Woods areas. The canal prism is approximately 6 feet deep by 70 feet wide. The towpath runs along the west side of the canal prism and is approximately 3 feet above the water line of the canal when fully watered. The Towpath Trail sits on a raised berm that slopes down to the old B&O Railroad bed where the Capital Crescent Trail is located. The slope between the towpath berm and Capital Crescent trail varies from gently to steeply sloped. Stairs and ramps are provided at points of high traffic between the two trails, such as the pedestrian bridge across the canal. Other points of crossing, referred to as social trails, between the two paths are indicated by eroded soils from repeated use. A steep slope connects the west side of the Capital Crescent Trail with the landscape of the Riverfront Recreation LCA. On the east side of the canal, the topography varies from flat at the maintenance area to steeply sloped. Where the historic culvert, referred to as Culvert 159-C, daylights under Canal Road, water cascades down a steep rocky slope, including remnants of a dry-laid masonry wall that formed the canal prism wall at this point, to enter the canal across from mile marker 3. Vegetation conceals the condition of the east side of the canal prism.

Canal Structures

Structures associated with the C&O Canal in the Canal Corridor LCA include Wasteweir 3, the Fletcher's Road Culvert, the Battery Kemble Culvert, Maddox Branch Culvert, and Culvert 159-C. Wasteweir 3 consists of a concrete and timber structure that allows excess water from the canal to pass through the berm and daylight on the west side of the Capital Crescent Trail onto a steep concrete spillway. The water falls audibly from the wasteweir and flows past two stone remnants of the Potomac Company's "new locks" (conjecture). This waterway passes under the wood and iron pedestrian bridge before entering Fletcher's Cove.



Figure 3-35. Board-formed concrete extension of the Fletcher's Road culvert (QE, 2021)

The Fletcher's Road Culvert was constructed to provide access to the cove, mill, and other structures during and after the construction of the C&O Canal. Initially of stone and mortar construction, an extension was added between 1900 and 1910 to accommodate the bed of the B&O Railroad (Figure 3-35). The addition was constructed of board-formed concrete and is distinct from the older style of the culvert entrance on the east side. Graffiti is present on and throughout the culvert.

The Maddox Branch Culvert and Battery Kemble Culvert convey the Maddox Branch through the study area to Fletcher's Cove. The Maddox Branch Culvert

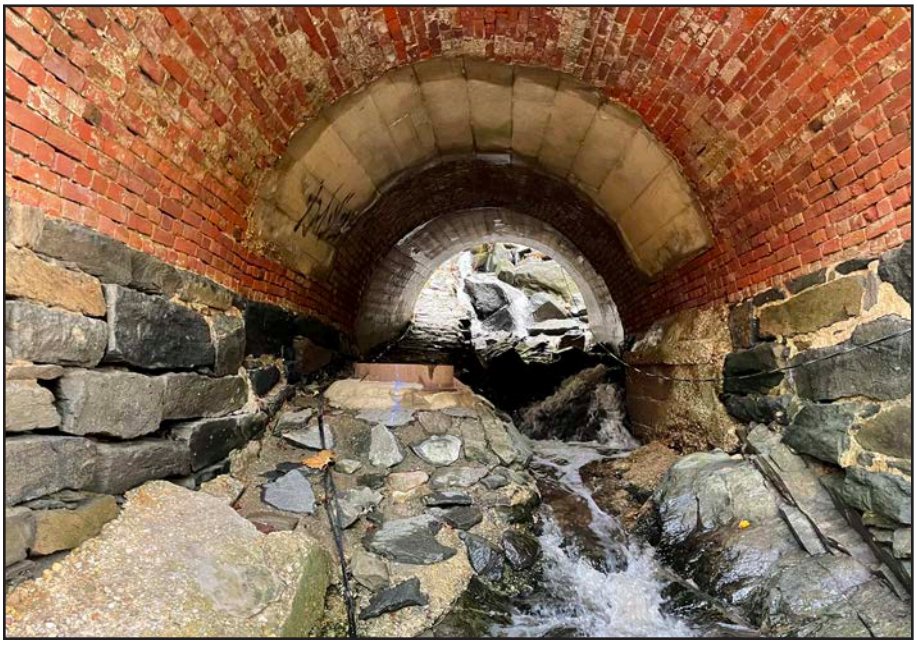


Figure 3-36. The Maddox Branch Culvert under Canal Road NW, Potomac Interceptor access manhole in foreground (QE, 2021)

channels the stream under Canal Road, daylighting at the vehicular bridge that carries Fletcher's Road across the branch to the Fletcher's Road Culvert (Figure 3-36). The culvert is constructed of stone, concrete, and brick. An area of flat, stone-paved armoring runs the length of the culvert and visitors use this surface as a path to access the site from the Palisades neighborhood. Both the armoring and a stone and concrete structure with a metal manhole cover were constructed inside the culvert to house a small lateral sewer line.

The Battery Kemble Culvert is constructed of stone and conveys the Maddox Branch under the comfort station access path, C&O Canal, Towpath Trail, and Capital Crescent Trail. Due to dense vegetation and the location of circulation, the Battery Kemble Culvert is mostly visually inaccessible to visitors. Toward the south end of the study area Culvert 159-C conveys the Meem's (Meen's) Branch under Canal Road and into the canal. The culvert is constructed of stone, brick, and concrete and is somewhat visible from the Towpath Trail near mile marker 3 (Figure 3-37). The culvert, owned by DDOT, is going to be replaced with a concrete box culvert with brick and stone veneer and NHPA Section 106 has identified this as an adverse effect. An MOA is being developed as of Fall 2022 related to this.

Analysis

Topography and structures related to the C&O Canal contribute to the overall character of the landscape. A level or very gently sloped condition was necessary along the canal to facilitate its use. To maintain this condition, the towpath landform slopes down to varying degrees to connect with the natural topography of the site. This condition was altered by the addition of the B&O Railroad tracks,



Figure 3-37. Historic Culvert 159-C conveys water under Canal Road NW across from Mile Marker 3 (QE, 2021)

which extended the berm west towards the Potomac River. The extant canal prism and towpath berm convey these historic relationships. Wasteweir 3 continues to direct excess water from the canal to the Potomac River and historic culverts continue to serve their designed purpose, remaining largely unchanged, though graffiti at nearly all locations impacts the historic character.

CANAL CORRIDOR CIRCULATION

Existing Condition

Circulation through the Canal Corridor is composed of vehicular, pedestrian, and water routes. Site access at the intersection of Canal Road and Reservoir Road involves both a pedestrian crosswalk and sidewalk, as well as Fletcher's Road, a single-lane asphalt drive (Figure 3-38). Canal Road alternates between single direction vehicle traffic traveling south into the city in the mornings and single direction vehicle traffic traveling north out of the city in the afternoons and evenings during weekdays. On weekends and holidays, the road has two-directional traffic. Accessing the site is challenging in a vehicle, as the turn into the drive from the north cannot be completed in a single maneuver. Many visitors pull beyond the drive and back down until they reach the Abner Cloud House parking area. Others execute a three-point turn, which is extremely dangerous with oncoming traffic. Visitors turning in from the south cause significant traffic back ups waiting for an opening to turn into the site. Finally, vehicles can enter the site from Reservoir Road. The traffic signal gives them time to cross and the angle is manageable from that direction; however, signage on Reservoir Road is confusing as both "one-way only" and "two-way traffic at all times" signs are present. Traffic leaving the project area waits at a single traffic light at the Abner Cloud House



Figure 3-38. Site access at the intersection of Canal Road NW and Fletcher's Road (QE, 2021)



Figure 3-40. Accessible parking space with wood edging inhibiting access to the Abner Cloud House (QE, 2021)

parking area. When the light turns green, cars pull up the drive and exit either onto Canal or Reservoir Road. The light is short, so vehicles drive quickly to get up the drive and into traffic.

Once on site, vehicles either turn west from Fletcher's Road into the Abner Cloud House parking area, which is a popular choice for trail users and visitors to the house, or continue north across the bridge over the Maddox Branch towards the culvert under the canal. The parking area at the Abner Cloud House is located on the west side of the house and has a gravel surface. The area to the north of the



Figure 3-39. Fletcher's Road condition, facing southeast from the Fletcher's Road Culvert (QE, 2021)

house has a wooden edge and includes one accessible parking space that does not meet the Architectural Barriers Act Accessibility Standards (ABAAS) for sizing or surface treatment (Figure 3-40). The area to the south of the house has some boulder edging near the house and meets the stone retaining wall on the west side of Canal Road. The far south end of the parking area is used as a maintenance area, housing maintenance supplies and equipment. The canal weeding machine is stored here and enters the canal at a point where the berm is gently sloped and close to the water level.

The Fletcher's Road culvert is a combination of stone and concrete construction and accommodates one direction of travel at a time. There is no signal to indicate oncoming traffic at either end (Figure 3-41). The road surface has degraded in many areas due to erosion, weather, and use. Holes in the asphalt surface reveal the gravel subbase and scouring from stormwater on Canal Road and uphill development has resulted in eroded banks on the north slope of the east culvert entrance (Figure 3-39). A trench drain at the east entrance to the culvert, likely constructed between 1969 and 1972, directs water under the road, daylighting at a damaged culvert and scoured channel on the west side.

Pedestrian circulation in the Canal Corridor is centered around interpretation and recreation. Recreational circulation includes the Towpath Trail, constructed on the canal towpath, and the Capital Crescent Trail, constructed on the bed of the Georgetown Branch of the B&O Railroad. These paths are heavily utilized by walkers, joggers, and cyclists. The towpath has a gravel surface and the Capital Crescent Trail is paved with asphalt.



Figure 3-41. Cyclists entering the Fletcher's Road Culvert with limited visibility (QE, 2021)

Gravel and bluestone walkways guide visitors towards the Abner Cloud House, and while an accessible parking space is provided adjacent to the walkway, the wood edge and uneven gravel surface that is mostly covered with grass do not meet ABAAS standards for accessibility. Gravel paths connect the parking area to the comfort station and bridge across the canal. Wooden stairs and a ramp connect trails to the Fletcher's Boathouse and Riverfront Recreation LCA. Many pedestrians and cyclists avoid the stairs and ramp, resulting in eroded "desire lines" on the adjacent slope.

Significant conflicts occur between vehicles, vehicles and pedestrians, cyclists and pedestrians, and cyclists and vehicles, and the locations of these conflicts are called out in the Circulation Analysis Diagram, Drawing 3- 3. The entrance to the study area at the intersection of Canal Road NW, Fletcher's Road, and Reservoir Road poses significant danger to visitors. The tight turn into Fletcher's Road creates an unsafe condition with traffic along Canal Road. This issue is addressed by the 2019 *Fletcher's Boathouse Transportation Upgrades Environmental Assessment*. Conflicts also occur at both entrances to the Fletcher's Road Culvert, as no signals indicate oncoming traffic and the road is only wide enough for one vehicle at a time.

At the west side of the pedestrian bridge, visitors crossing to Fletcher's Boathouse and the Riverfront Recreation LCA often conflict with Towpath Trail and Capital Crescent Trail users. Cyclists utilizing the paved surface of the Capital Crescent Trail travel at faster speeds and the crossing is not well-marked. Crossing the canal to access Fletcher's Boathouse and Cove at this location is a historic route, though during the period of significance it was crossed by boat and traffic was limited along the towpath and railroad line (Figure 3-42 and Figure 3-43). The addition of a pedestrian bridge in this location maintains this route but inhibits the continuation of canal boats past this point as the bridge clearance is too low for the boats to pass underneath.

Maintenance vehicles conflict with cyclists at the intersection of the Capital Crescent Trail and maintenance access road to the Riverfront Recreation LCA. Sight lines are inadequate to ensure driver and cyclist safety at this intersection, and there is no signage indicating the use of this route by vehicles.

Water-based circulation in the Canal Corridor area occasionally includes tours on a historic canal barge that runs between Georgetown and the Abner Cloud House. The pedestrian bridge, constructed in the 1990s to allow pedestrians and emergency and maintenance vehicles to cross the canal, is too low for canal boats

to pass safely underneath. Visitors explore the canal by canoe and kayak as well and rentals are available through Fletcher's Boathouse.

Analysis

Circulation in the Canal Corridor mostly follows historic routes. Vehicular circulation on Canal Road and Fletcher's Road is largely the same as it was during the period of significance. Pedestrian use of the Towpath Trail and Capital Crescent Trail follow historic routes for canal and railroad circulation.



Figure 3-42. Visitors utilizing the C&O Canal and towpath for recreation (LOC, 1909)

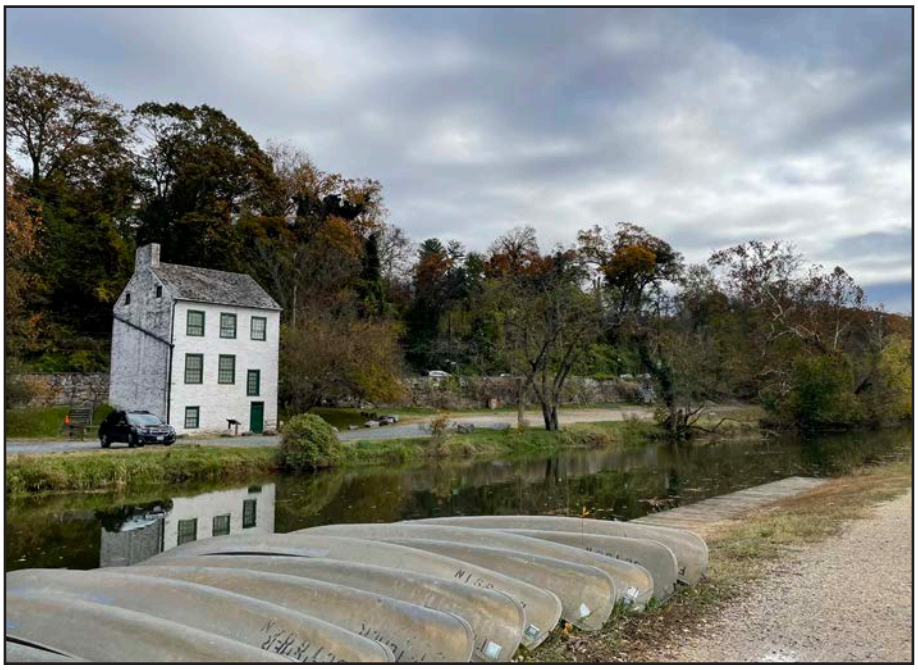


Figure 3-43. Recreational use of the canal and Towpath Trail in 2021 (QE, 2021)

During the period of significance, visitors to Fletcher's Boathouse were ferried across the canal to access rental boats and Fletcher's Cove. This pattern of circulation is currently provided by the bridge, which does not contribute to the historic circulation. Canal boat circulation is limited by the low clearance of the pedestrian bridge and is missing beyond that point.

CANAL CORRIDOR VIEWS

Existing Condition

Views within and from the Canal Corridor are an important part of the landscape experience. The main viewsheds within the project area occur along the north–south and east–west axes. North–south views are focused on the canal as the dominant landscape feature. The open character of the canal area allows for longer views to the north and south. The pedestrian bridge over the canal provides new views along the canal corridor (Figure 3-44). East–west views strongly relate to natural topography. To the east across Canal Road, the hillside rises steeply and is densely forested, providing a sense of enclosure to the site. To the west, views are largely screened through the vegetation growing on the berm west of the Capital Crescent Trail. Near Fletcher's Boathouse and the Abner Cloud House, open lawn areas in the Riverfront Recreation LCA allow for views to the Potomac River and the bluffs on its western banks.

Analysis

During the height of its use for industrial and transportation purposes, the landscape around the C&O Canal was mostly clear of vegetation, providing broad views of the Canal Corridor, floodplain landscape, and Potomac River. As land use shifted to recreation and conservation, successional woodland has



Figure 3-44. View 12 from the pedestrian bridge down the canal, facing south (QE, 2021)

reestablished, limiting east–west views to the area around Fletcher's Cove where a mown condition is maintained. The Abner Cloud House stands out as the only wholly visible building in the LCA and its relationship to the canal is clear (Figure 3-45). Views between the Abner Cloud House and Potomac River are missing due to successional vegetation on the canal berm. Mowing along the Towpath Trail has maintained north–south views throughout the study area and extending beyond it (Figure 3-46).



Figure 3-45. View 13 from the Towpath Trail to the Abner Cloud House and hillside beyond (QE, 2021)



Figure 3-46. View 15 from the Towpath Trail facing north along the C&O Canal (QE, 2022)

CANAL CORRIDOR VEGETATION

Existing Condition

Vegetation within the Canal Corridor can be divided into three categories: mown, ornamental, and woods. Mown vegetation (including lawn) occurs around high traffic areas such as the Towpath and Capital Crescent Trails and around the Abner Cloud House. Ornamental vegetation consists of intentionally-planted species that have decorative or screening functions and occurs around both the Abner Cloud House and the comfort station. A woods condition exists in areas that are not mown or high traffic, including spaces beyond the mown edges of the trails and between the C&O Canal and Canal Road.

Mown vegetation can be categorized as mown lawn, which occurs around the Abner Cloud House, and mown mixed grassland, which includes a mixture of grasses and forbs that can be mown infrequently. Mown mixed grassland is located along the banks of the canal prism and between the Towpath and Capital Crescent Trails.

Ornamental vegetation at the Abner Cloud House includes trees and shrubs of varying ages. Two linden trees (*Tilia americana*) occupy the southern slope adjacent to the house along with a large crepe myrtle shrub (*Lagerstroemia spp.*) (Figure 3-47). At the southeast corner of the house, a small dogwood tree (*Cornus spp.*) and boxwood (*Buxus sempervirens*) shrub flank the entry door. On the slope at the north side of the house, two ornamental shrubs (one *Forsythia spp.*, another unidentified) and a large wild plum tree (*Prunus americana*) are growing just north of the access stairs.



Figure 3-47. Two linden trees and a crepe myrtle shrub on the south side of the Abner Cloud House (QE, 2021)

Ornamental vegetation planted to screen the comfort station includes hollies (*Ilex spp.*) that screen the comfort station porch from the canal and trail users and three multistem river birches (*Betula nigra*) planted between the maintenance access and the Maddox Branch (Figure 3-48).

Analysis

Contributing vegetation in the Canal Corridor includes the mown vegetation between the canal and towpath and ornamental plants around the Abner Cloud House. Maintenance of mown lawn between the canal prism and towpath conveys the historic relationship between the two features. While ornamental vegetation around the Abner Cloud House may not date to the period of significance, the feel of the vegetation as surrounding the structure with a deciduous canopy is retained by the current specimens. Successional woodland has been establishing around the canal corridor since the primary uses of the site shifted from industry and transportation to recreation and interpretation. In many areas along the Canal Corridor, successional woody vegetation impedes significant views to the Potomac River, detracting from the historic character of the landscape.

CANAL CORRIDOR BUILDINGS AND STRUCTURES

Buildings and structures in the Canal Corridor LCA include:

- Abner Cloud House
- Comfort station/odor control facility
- Fletcher's Road Culvert



Figure 3-48. River birches planted between the comfort station and Maddox Branch (QE, 2021)

- Bridge over Maddox Branch
- Stone retaining wall on the west side of Canal Road
- Pedestrian and emergency vehicle bridge over the canal
- Wood boat storage dock on the canal
- Wood stairs and ramp to Boathouse

The Abner Cloud House is a three-story stone building with a cedar shake roof, brick chimney, green-painted windows and whitewashed stone exterior. It is built into the slope so the eastern side has two exposed stories and the western side has three exposed stories (Figure 3-49). The front door faces Fletcher's Road and has a bluestone landing. A larger bluestone landing is located at the back (west-facing) door and a wayside relates the history of the house.

The comfort station/odor control facility is a brick building with a stone foundation that houses restrooms and a drinking fountain for visitors and a garage bay for maintenance and facilities use. The structure has a green metal-gabled roof. Visitor amenities are located under a covered porch on the west facade facing the canal (Figure 3-50). They are reached via a gravel path that spans the Battery Kemble Culvert. The south facade of the building runs parallel to the Maddox Branch and is screened from the Abner Cloud House parking area by a mix of successional woodland and ornamental plantings. The east facade is accessed from Fletcher's Road via a grass-paved driveway that leads to a large door for maintenance vehicles and storage. Building mechanical equipment is located along the north facade of the building and a number of manhole covers and a large wood access door provide access to below-ground utilities.



Figure 3-49. The north and west facades of the Abner Cloud House (QE, 2021)



Figure 3-50. The south and west facades of the comfort station/odor control facility with porch and restroom access (QE, 2021)

Directly north of the comfort station, Fletcher's Road curves west under the canal via Fletcher's Road Culvert. The culvert is a large stone and concrete culvert, 14 feet wide and 9.5 feet tall. The entrance to the culvert has wingwalls that extend approximately five feet east along Fletcher's Road before receding into the hillside north and south of the road. The culvert was extended to accommodate the width of the B&O Railroad tracks and the west entrance to the culvert is constructed of board-formed concrete. The entrance is recessed into the hillside with concrete retaining walls following the path of the road and terminating into grade parallel with the road.

On the west side of Canal Road NW, a stone wall retains grade between the road and existing grade for the length of the study area (Figure 3-51). The north end of the wall connects to existing bedrock where Fletcher's Road turns west under the canal and runs between the two roads south to the site entry point. South of the Abner Cloud House, the wall ties into the west side of Fletcher's Road at the site access point and continues south on the west side of Canal Road through the study area. The wall height varies based on the change in grade. In the 1990s, a vertical extension was added to the wall, creating a taller barrier between Canal Road and the grade change. The extension was built using a reinforced concrete masonry structure with stone veneer and appears different from but compatible with the historic wall. The extension includes metal scuppers that allow water from Canal Road to pass through the wall and drain into the study area.



Figure 3-51. The stone retaining wall negotiates the change in grade between Canal Road and Fletcher's Road (QE, 2021)

A metal and wood vehicular bridge carries Fletcher's Road over the Maddox Branch directly before the comfort station (Figure 3-52). The bridge is supported by stone and concrete abutments and steel I-beams and has a wood deck and railings.

A metal and wood pedestrian bridge spans the canal from the Abner Cloud House parking area to the Towpath and Capital Crescent Trails (Figure 3-53). It is a truss-style bridge and is wide enough to accommodate emergency and maintenance vehicle use as needed. Concrete abutments built into the canal berm support the



Figure 3-52. The east facade of the comfort station/ odor control facility from the vehicular bridge over the Maddox Branch (QE, 2021).



Figure 3-53. The pedestrian bridge spanning the C&O Canal (QE, 2021)

steel structure, which is supplemented by wood railings and metal handrails. The bridge deck is constructed of wood planks attached to the steel structure.

A simple wooden dock is built into the west side of the canal prism adjacent to the pedestrian bridge. A wooden handrail extending from the pedestrian bridge connects to its northern end. The dock is approximately 4 feet wide by 100 feet long and is primarily used for rental boat storage managed by Fletcher's Boathouse. The open character of the dock allows for boats to overhang the structure without interfering with Towpath Trail traffic.

Finally, two sets of stairs and ramps convey pedestrians between the Towpath Trail and Capital Crescent Trail and then from the Capital Crescent Trail to Fletcher's Boathouse. The first set of stairs are comprised of wood railings set on a poured concrete foundation with metal handrails. The ramp, which extends south from the Towpath Trail directly across from the pedestrian bridge and parallels the trails, has an exposed aggregate concrete surface. The stairs are located just south of the ramp and have the same wooden railings set on a poured concrete foundation with a metal handrail. The stairs are approximately seven feet wide and have handrails on either side and one down the middle. Directly across the Capital Crescent Trail, a wooden platform leads to a double set of stairs with handrails at either side and down the middle (Figure 3-54). The stairs ascend 13 risers and are built on wooden stringers. A ramp extends north from the platform approximately 60 feet before returning south to meet the stairs on a poured concrete pad.



Figure 3-54. Wooden stairs and ramp connect the Canal Corridor and Riverfront Recreation Areas (QE, 2021)

Analysis

The Abner Cloud House, Maddox Branch Vehicular Bridge, Fletcher's Road Culvert, Canal Road retaining wall, and wooden boat storage dock contribute to the historic character of the Canal Corridor landscape. While the current boat storage dock by the canal is not historic fabric, a similar features is present in the 1963 aerial. Non-contributing buildings and structures added to the Canal Corridor after the period of significance include the pedestrian bridge, stairs, and ramp.

CANAL CORRIDOR SMALL-SCALE FEATURES

Small-scale features within the Canal Corridor LCA are mostly related to visitor experience and recreation. Features delineate vehicular and pedestrian use areas, indicate historic and site use information, and contribute to user safety in the study area. Small-scale features in the Canal Corridor include:

- Park signs (2) (Figure 3-55)
- Handicap parking signage
- Wood parking area edging
- Boulder edging
- Concrete bin blocks
- Waysides
- Bike racks
- Wood fence
- Manhole covers
- Utility poles
- Mile marker
- Pedestrian crossing
- Traffic light
- Culvert clearance sign

Analysis

Small-scale features in the Canal Corridor facilitate safe and informed use of the site by visitors. While they do not contribute to the historic character of the study area, for the most part they do not detract from it. Multiple edging materials



Figure 3-55. Signage along the Towpath Trail (QE, 2021)

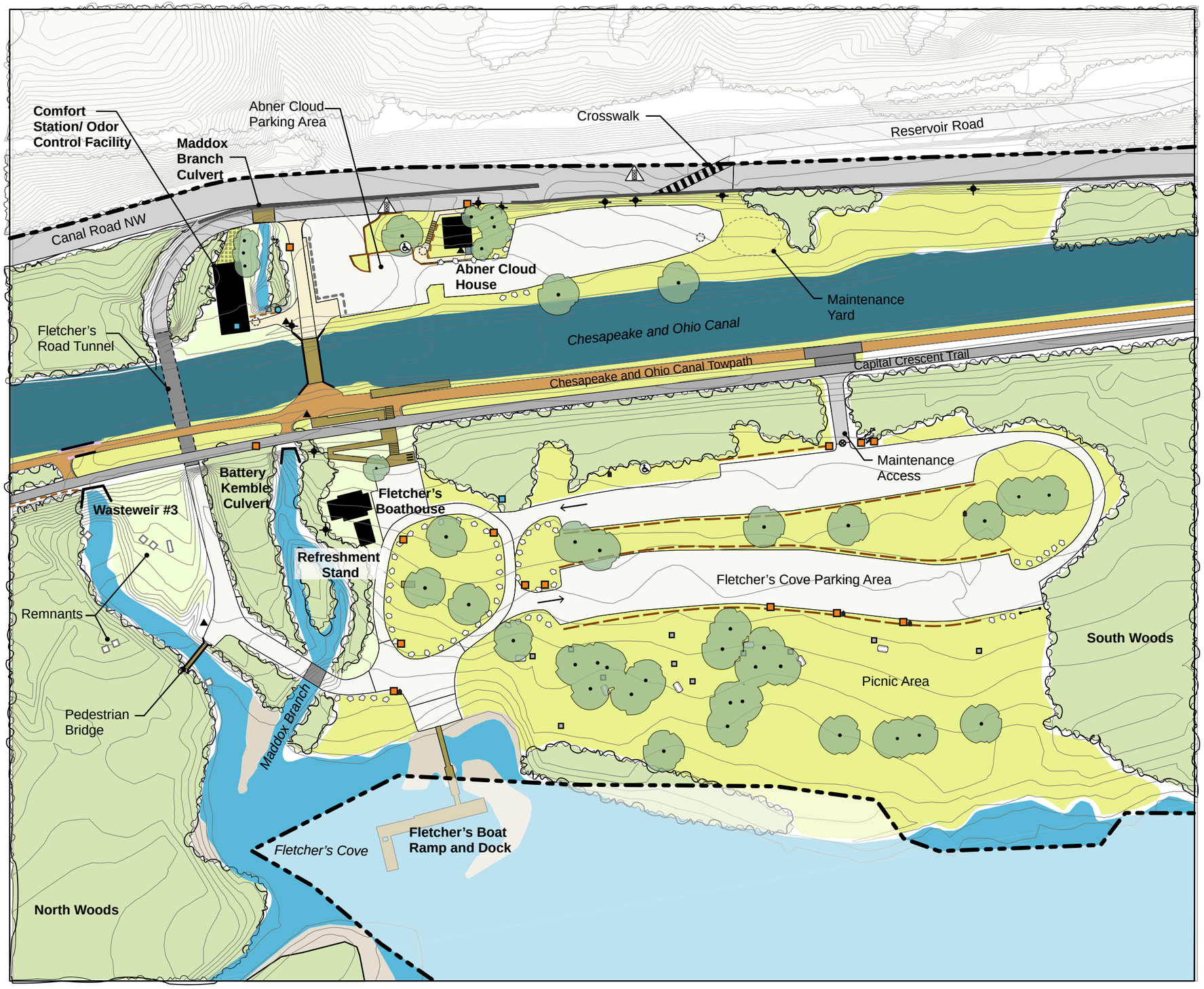
around circulation routes are in varying conditions and are not cohesive. Wood edging in the north part of the Abner Cloud House parking area is in poor condition and fails to contain the gravel surface. Around the Abner Cloud House, boulder edging is used to keep vehicular traffic a safe distance from the structure. Concrete bin blocks are used to separate pedestrian and vehicular areas at the north end of the parking area and create a confusing and unwelcoming interface (Figure 3-56). Accessible parking spaces throughout the study area fail to provide safe and usable access for alternately-abled visitors. Near the boathouse, bike racks are positioned at the base of a steep slope and cyclists frequently cut down the slope rather than use the ramp, causing bank erosion (Figure 3-57).



Figure 3-56. Concrete bin blocks separating vehicular and pedestrian areas in the Canal Corridor (QE, 2021)



Figure 3-57. Bicycle racks at the bottom of the ramp and stairs adjacent to the Capital Crescent Trail (QE, 2021)



Chesapeake and Ohio Canal National Historical Park

Fletcher's Cove

Detail Area

Legend

- Study Area Boundary
- Building
- Gravel Road/Parking
- Asphalt Road
- Concrete Path/Road/Bridge
- Towpath Trail (Gravel)
- Capital Crescent Trail (Asphalt)
- Gravel Pedestrian Walkway
- Bluestone Paving
- Wood Feature
- Grass Paving
- Lawn
- Shrub/Grasses Mix
- Tidal Mudflat
- Wooded Area
- Tree
- Canal Prism
- Stream/River
- Contours (2 ft)

Structures and Small Scale Features

- Weir/Culvert
- Pedestrian Bridge
- Traffic Light
- Signage
- Birdhouse
- Wayside
- Utility Pole
- Gate
- Drinking Fountain
- Structure Remnant
- Bollard
- Grill
- Stone Edging
- Picnic Table (approximate locations)
- Bin Blocks
- Fence
- Wood Curb stop
- Headwall/Concrete Edge
- Manhole cover

Sources

1. Road, building, trail, hydrology and contour data from National Park Service, DC Geodatabase
2. Drawing by Quinn Evans, ArcMap 10.8

0 50 100 200 Feet

1 inch = 100 feet

	October 2022	EC-2

Drawing EC 2. Existing Conditions, Detail Area

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RIVERFRONT RECREATION EXISTING CONDITIONS & ANALYSIS

This section describes the existing conditions of the Riverfront Recreation LCA, organized by landscape characteristic. This area is defined by an open, parklike character with strong visual connections to the Potomac River. Sandwiched between the canal and the river, the area is used for fishing, boating, picnicking, and other forms of active and passive recreation. It is illustrated on Drawing EC-2.

Table 3-3. Riverfront Recreation Contributing and Non-contributing Landscape Features

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	CRITERION	FMSS LOCATION ID / FMSS ASSET ID
SPATIAL ORGANIZATION			
Relationship to Potomac River	C	Criterion A: *Conservation*	*N/A*
Layout on flat floodplain topography	C	Criterion A: *Conservation*	*N/A*
Open vegetation	C	Criterion A: *Conservation*	*N/A*
VIEWS			
From Fletcher's Boathouse to Fletcher's Cove	C	Criterion A: *Conservation*	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From the picnic area to the Potomac River	NC	Notable view, strong relationship to river	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
From north side of cove to Fletcher's Boathouse	NC	Notable view with interpretation potential	*7259 / 1169557* *FMSS record is for vegetation needing maintenance to preserve the view*
VEGETATION			
Specimen trees	NC	Added after 1966	*7259 / 1169557*
Mown lawn	C	Criterion A: *Conservation*	*7259 / 1169557*
Woods	C	Criterion A: *Conservation*	*7259 / 1169557*
Riparian vegetation	C	Criterion A: *Conservation*	*7259 / 1169557*
CIRCULATION			
Fletcher's Road	C	Criterion A: *Transportation, Commerce*	*80856*

FEATURE	C / NC / U / M (CONTRIBUTING, NON-CONTRIBUTING, UNCONFIRMED, MISSING)	CRITERION	FMSS LOCATION ID / FMSS ASSET ID
Parking area	NC	Formalized after 1966	*80873*
Fletcher's Boathouse Circle	NC	Added after 1966	*80873*
Maintenance access drive	NC	Added after 1966	*Consider adding record if park conducts active, recurring maintenance.*
BUILDINGS & STRUCTURES			
Fletcher's Boathouse	C	Criterion A: *Conservation*	*N/A*
Refreshment Stand	C	Criterion A: *Conservation*	*N/A*
Maddox Branch Vehicular Bridge	NC	Updated after 1966	*80697*
Fletcher's Boathouse docks	NC	Compatible with historic structures	*N/A*
SMALL-SCALE FEATURES			
Signage	NC	Added after 1966	*7259*
Parking area signs	NC	Added after 1966	*80873*
Boulder edging	NC	Added after 1966	*7259 / 1000356*
Wooden curbstops	NC	Added after 1966	*7259 / 1000356*
Waysides	NC	Added after 1966	*7259*
Picnic tables	NC	Added after 1966	*7259*
Post-mounted grills	NC	Added after 1966	*7259*
Fletcher's bench	NC-C	Current bench is not historic fabric, but is in the location of one placed by Mr. Fletcher	*7259*
Metal float	NC	Added after 1966	*7259*
Utility poles	NC	Added during the period of significance but not directly associated with the significance Criteria	*N/A*
Trash free park signs (with and without birdhouses)	NC	Added after 1966	*7259*
Metal maintenance gate	NC	Added after 1966	*80873*
Maintenance access bollard	NC	Added after 1966	*80873*

RIVERFRONT RECREATION SPATIAL ORGANIZATION

Existing Condition

The spatial organization in the Riverfront Recreation LCA is defined by natural systems, circulation, and vegetation. The area is defined by its relationship to the Potomac River and Fletcher's Cove to the west. Site access and use relates to the vehicular circulation system composed of Fletcher's Road, the Fletcher's Boathouse circle drive (authorized vehicles only), and the picnic area parking loop, which align with the flat floodplain topography and connect to Fletcher's Boathouse as a central node in the area. A mown lawn condition is maintained throughout the majority of the area, which creates an open, parklike quality to the space in contrast to the wooded areas to the north and south. Visibility is high between the boathouse, picnic area, and river and pedestrian circulation is informal between these destinations (Figure 3-58).

Analysis

The relationship to the Potomac River and Fletcher's Cove, arrangement on the flat floodplain topography, and open character of the vegetation in the Riverfront Recreation LCA all contribute to the historic character of the landscape. During the period of significance, the landscape was utilized for agriculture and recreation, both uses taking advantage of the flat topography and proximity to the river. The landscape was maintained, first as plowed field and then mown lawn, to accommodate these uses. While the parking area loop was constructed after 1966, it is located in the same area used for informal parking in the period of significance and so does not detract from the historic landscape. The open



Figure 3-58. The strong visual and circulatory connection between Fletcher's Boathouse and Fletcher's Cove (QE, 2021)

vegetation allows for views to and across the river through the LCA, reinforcing the strong connection between the landscape and the river in this location.

RIVERFRONT RECREATION CIRCULATION

Existing Condition

Circulation in the Riverfront Recreation LCA is primarily composed of vehicular circulation routes and parking areas. Pedestrian circulation through the area typically follows vehicular routes or is unstructured across mown lawn.

Vehicular circulation is composed of Fletcher's Road and the picnic area parking. Fletcher's Road emerges on the west side of the culvert and curves to the south over the vehicular bridge that spans the lower part of the Maddox Branch. A gravel-paved circle provides restricted vehicular access to the Fletcher's Boathouse, used by staff, maintenance, and emergency vehicles. In many places the gravel is worn away and eroding. Personal vehicles use the west and south sides of the circle to access the parking loop by the picnic area Figure 3-59). The one-way parking loop begins at the southwest end of the circle and extends approximately 600 feet before looping back and returning to the southeast end of the circle. The loop has 90-degree parking spaces on either side of the drive aisle delineated by wooden curbstops and a central area with mown lawn and specimen trees. Accessible parking is located on the east side of the loop closest to the boathouse. Grass is encroaching on the parking surface and a clear accessible route to the boathouse is not available. Maintenance and emergency vehicles access this area via Fletcher's Road or via the pedestrian bridge and trails, which connect to the parking loop via a single-lane concrete-paved road. This route has a bollard at the parking area to restrict access (Figure 3-60).



Figure 3-59. Signage directs vehicular traffic through the parking loop (QE, 2021)

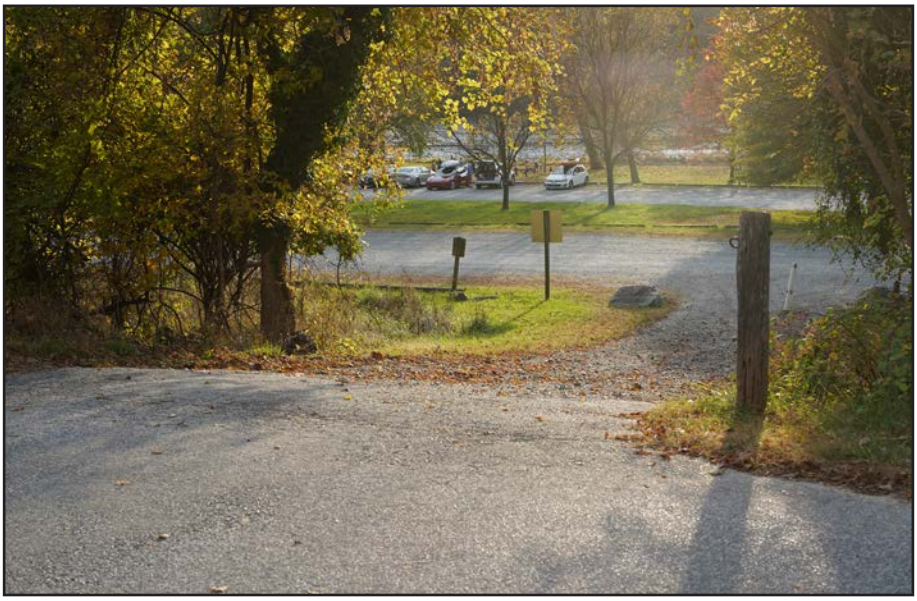


Figure 3-60. The maintenance access road descends from the Capital Crescent Trail to the parking loop (QE, 2021)

Pedestrian circulation through the Riverfront Recreation LCA is largely unstructured. Visitors entering from the Abner Cloud parking area, Towpath Trail, or Capital Crescent Trail use the wooden stairs or ramp to the boathouse. Some trail users, typically cyclists, will enter the parking area via the maintenance road. From this point, visitors fan out across the landscape depending on their destination. The most heavily-trafficked pedestrian route is between Fletcher's Boathouse and Fletcher's Cove.

Analysis

Fletcher's Road is the only contributing circulation route in the Riverfront Recreation LCA, as it follows the historic layout of the road to where it crosses the Maddox Branch. The circle drive and parking area south of the boathouse were constructed by 1971. Vehicular access to the Riverfront Recreation LCA, for both personal and maintenance or emergency vehicles, presents numerous challenges and safety concerns. The single-lane road that emerges from the culvert opens up slightly to allow for two vehicles to pass, then constricts again to cross the Maddox Branch bridge. Between the bridge and the parking area, pedestrians renting boats from the boathouse or walking down to view the cove cross this vehicular route without any designated crossing. Conflicts arise between cyclists on the Capital Crescent Trail and maintenance or emergency vehicles leaving the Riverfront Recreation LCA via the maintenance access road, which has poor sightlines and no signage. These points of conflict in the circulation of the Riverfront Recreation LCA do not interfere with historic circulation routes and can be remedied without threatening the integrity of the historic landscape.

RIVERFRONT RECREATION VIEWS

Existing Condition

Views in the Riverfront Recreation LCA are primarily focused on Fletcher's Boathouse, Cove, and the Potomac River. The open character of the vegetation facilitates views to the river throughout the LCA. As illustrated in Figure 3-17 through Figure 3-20, the arrival sequence on Fletcher's Road constricts views under the culvert before broadening to take in the cove and Potomac River as the road crosses the Maddox Branch. Views from the pedestrian access point at the Capital Crescent Trail are also largely uninterrupted and the view corridor between the Abner Cloud House, Fletcher's Boathouse, and Fletcher's Cove is intact. The parklike vegetation allows pedestrians to see their destination from that vantage point before descending into the LCA and making their way toward the boathouse, cove, or picnic area. Views from the northern banks of Fletcher's Cove back towards the boathouse and picnic area offer a different perspective on the landscape as it appears enclosed by the canal topography and natural topography of the Palisades neighborhood rising to the east of the study area.

Analysis

Views along Fletcher's Road, between the boathouse and cove, across the Potomac River (Figure 3-61), and from the north banks of the cove back towards the LCA all contribute to the historic landscape. Changes to the Riverfront Recreation LCA since the period of significance mostly involve changes to circulation, which do not inhibit historic views. Modern additions to plantings in the area are deciduous shade trees, whose canopies begin above average site lines.



Figure 3-61. View from Fletcher's Cove boat docks across to the west bank of the Potomac (QE, 2021)

RIVERFRONT RECREATION VEGETATION

Existing Condition

There are three main vegetation types in the Riverfront Recreation LCA: mown lawn, specimen trees, and woods. Mown lawn covers most of the LCA and is maintained for recreational use. Specimen trees are those planted intentionally throughout the area and utilized by visitors for their shade (Figure 3-62). A variety of species have been planted in this area, including: red oak (*Quercus rubra*), pin oak (*Quercus palustris*), birch (*Betula spp.*), silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), willow oak (*Quercus phellos*), sweet gum (*Liquidambar styraciflua*), and sycamore (*Plantanus occidentalis*). The largest specimen trees in the area are the silver maples planted around the Fletcher's Boathouse circle and near the entrance to the parking loop. Picnic tables and grills are frequently located under the canopies of specimen trees to make use of their shade in warmer months. Finally, there are places in the Riverfront Recreation LCA that are not mown and have not been intentionally planted. In these places, a successional woodland has emerged. Wooded areas in this LCA include the slope between the Canal Corridor and the parking area, the landscape between Fletcher's Boathouse and the Maddox Branch, and the area between the Maddox Branch and Fletcher's Road. Typical species found in these wooded areas include sycamore, black walnut, and American plum. Understory shrubs, forbs, and some grasses are also present in these areas. Riparian trees and shrubs have established along the shoreline of the Potomac River and fallen trees are frequently deposited along the shoreline of the picnic area in high water events.



Figure 3-62. Parklike character of the picnic area along the Potomac River, facing northeast (QE, 2021)

Analysis

The mown lawn and specimen trees in the Riverfront Recreation LCA support an open and parklike quality to the vegetation (Figure 3-63). Riparian vegetation along the Potomac River and woods surrounding the Maddox Branch contribute to the character of the historic landscape (Figure 3-64). While exact specimens have changed throughout and following the period of significance, the evolution of the landscape from an agricultural to an industrial and then to a recreational place is legible in the current vegetation. Riparian areas are by nature in flux, responding to water levels, flood events, and other changing conditions. Riparian vegetation protects the shoreline from excessive erosion and traps valuable sediment for nourishment. Wooded areas along streams like the Maddox Branch provide habitat and protect water quality. Mown lawn supports a variety of recreational uses on site and the canopy of shade trees provides shade for visitors. Overall, the quality of the vegetation in the LCA conveys the significance of the historic landscape.



Figure 3-63. Mown lawn and specimen shade trees in the picnic area looking north towards the boathouse (QE, 2021)

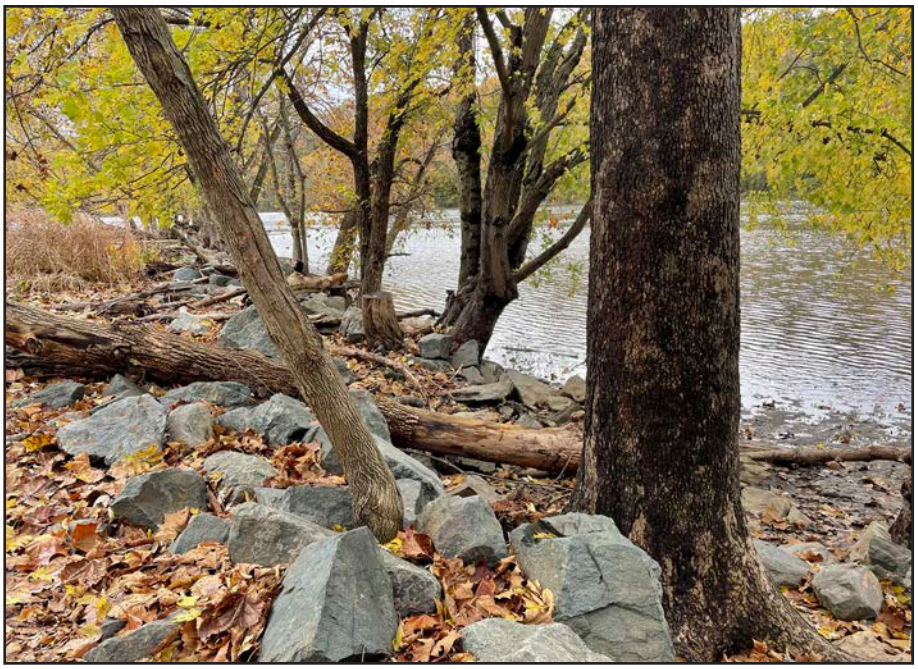


Figure 3-64. Riparian trees grow through the armored shoreline, facing south (QE, 2021)

RIVERFRONT RECREATION BUILDINGS AND STRUCTURES

Existing Condition

Buildings and structures in the Riverfront Recreation LCA include:

- Fletcher's Boathouse
- Refreshment Stand
- Boat docks
- Maddox Branch bridge

Fletcher's Boathouse is a single-story building with metal siding and a front shed porch (Figure 3-65). A central door is flanked by two large windows under the porch, which has three steps up from the surrounding grade. Beside it, the Refreshment Stand is constructed of concrete masonry units with a flat roof overhanging a raised porch on the south facade. Two large service windows face the porch, which is raised five steps above finished grade to the west and two steps above grade to the east. Both structures are painted a pale green. The boathouse has wood trim painted blue and the shed has white metal and wood trim. Flood lines from historic flood events are painted on the side of the Refreshment Stand, indicating the high water mark from each event and the year it occurred (Figure 3-66). Boat storage is located around the cluster of buildings and spreads out along the eastern border of the LCA where rowboats are stored, upturned on blocks in front of the woods on the towpath berm.

Wooden docks are maintained by the concessionaire in Fletcher's Cove, used for boat storage during the rental season, and are the main point of departure for boaters from Fletcher's Cove (Figure 3-67). The arrangement of the docks responds to the conditions in the cove. With increasing siltation, docks are arranged to access points of deep water at all tidal levels. The docks are accessed from the gravel boat ramp directly west of the boathouse across Fletcher's Road. A wooden box for storage is located on the floating docks.

A concrete and wood bridge spans the Maddox Branch on Fletcher's Road north of the boat docks. The bridge includes a concrete base with wooden railings constructed on top of a metal culvert that channels stream flows into Fletcher's Cove (Figure 3-68).

Analysis

The current Fletcher's Boathouse and Refreshment Stand structures were constructed in their present locations in 1962 and 1963, respectively, and both contribute to the historic character of the landscape in the Riverfront Recreation LCA. The vehicular bridge spanning the lower section of the Maddox Branch was constructed by 1963 and provided access to the area once the Fletchers ceased running a ferry across the canal. The current boat docks in the cove are modern additions; however, they occupy the same location as historic docks and so convey the historic character. Permanent buildings and structures were likely not constructed in this area prior to the 1960s due to its location within the 1-percent-annual-chance flood line. As high water marks on the Refreshment Stand indicate, flood events can cover the entire area. Overall, all buildings and structures located in the LCA contribute to the historic character of the landscape.



Figure 3-65. Fletcher's Boathouse and refreshment stand, facing northwest (QE, 2021)



Figure 3-66. Historic flood lines marked on the southwest corner of the refreshment stand, facing north (QE, 2021)

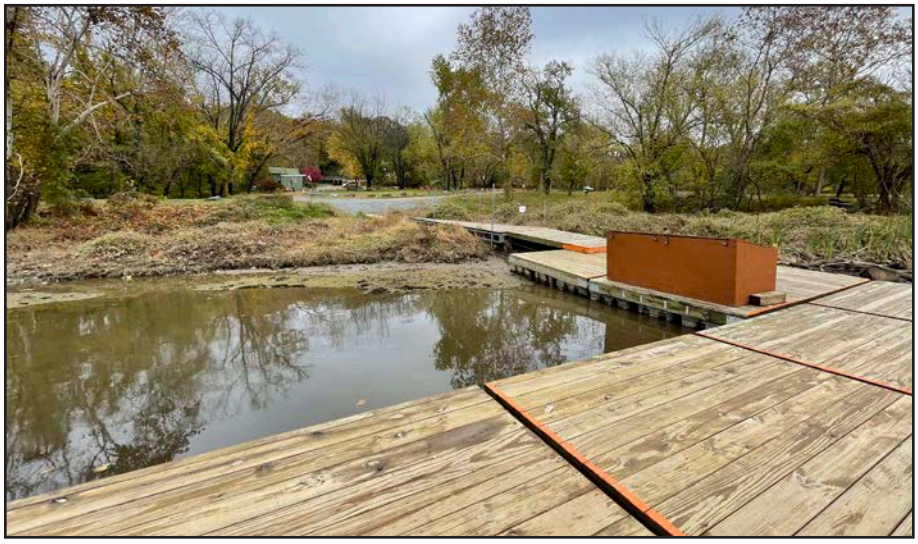


Figure 3-67. Floating wooden boat docks and storage box in Fletcher's Cove, facing east (QE, 2021)



Figure 3-68. Concrete and wood vehicular bridge over the lower Maddox Branch culvert, facing north (QE, 2021)

RIVERFRONT RECREATION SMALL-SCALE FEATURES

Existing Condition

Small-scale features within the Riverfront Recreation LCA support recreational use of the site with regards to boating, fishing, and picnicking. Small-scale features in the LCA include:

- Picnic tables
- Post-mounted grills
- Vehicular circulation signage
- Site use signs
- Maintenance access gate
- Maintenance access bollard
- Boulder edging
- Wooden bench
- Metal float
- Riprap

Post-mounted grills are heavily used, as indicated by large piles of ash under all features. Picnic tables are freely moved around the area to accommodate groups of all sizes. Numerous signs encourage removal of trash from the area.

Analysis

Nearly all small-scale features in the Riverfront Recreation LCA are modern additions intended to improve visitor safety and experience or facilitate maintenance of the facilities and landscape. A wooden bench in the location of one placed by Mr. Fletcher overlooks the Cove from the mown lawn in front of the Refreshment Stand. While not historic fabric, the current bench is compatible with the historic landscape.

Features installed for safety at the maintenance access road fail to adequately protect cyclists and maintenance personnel as visibility in the area is poor. A mixture of boulder edging and wood curbstops define the vehicular and parking areas and does not convey a cohesive appearance compatible with historic character. Overall, small-scale features do not contribute to the historic landscape.



Figure 3-69. Mr. Fletcher's wooden bench directed towards the cove, facing north (QE, 2021)



Figure 3-70. Large ash piles under grills in the picnic area indicate heavy use, facing west (QE, 2021)

ENDNOTES

1 "Geological Regions of the C&O Canal National Historical Park," C&O Canal Trust, accessed December 2, 2021, available at https://www.canaltrust.org/2019/11/regions-of-the-co-canal-national-historical-park/.

2 Edward Callender, Virginia Carter, DC Hahl, Kerie Hitt, and Barbara I. Shultz, "A Water-Quality Study of the Tidal Potomac River and Estuary-- An Overview." United States Geological Survey Water-Supply Paper 2233, United States Department of the Interior, 1984, 3.

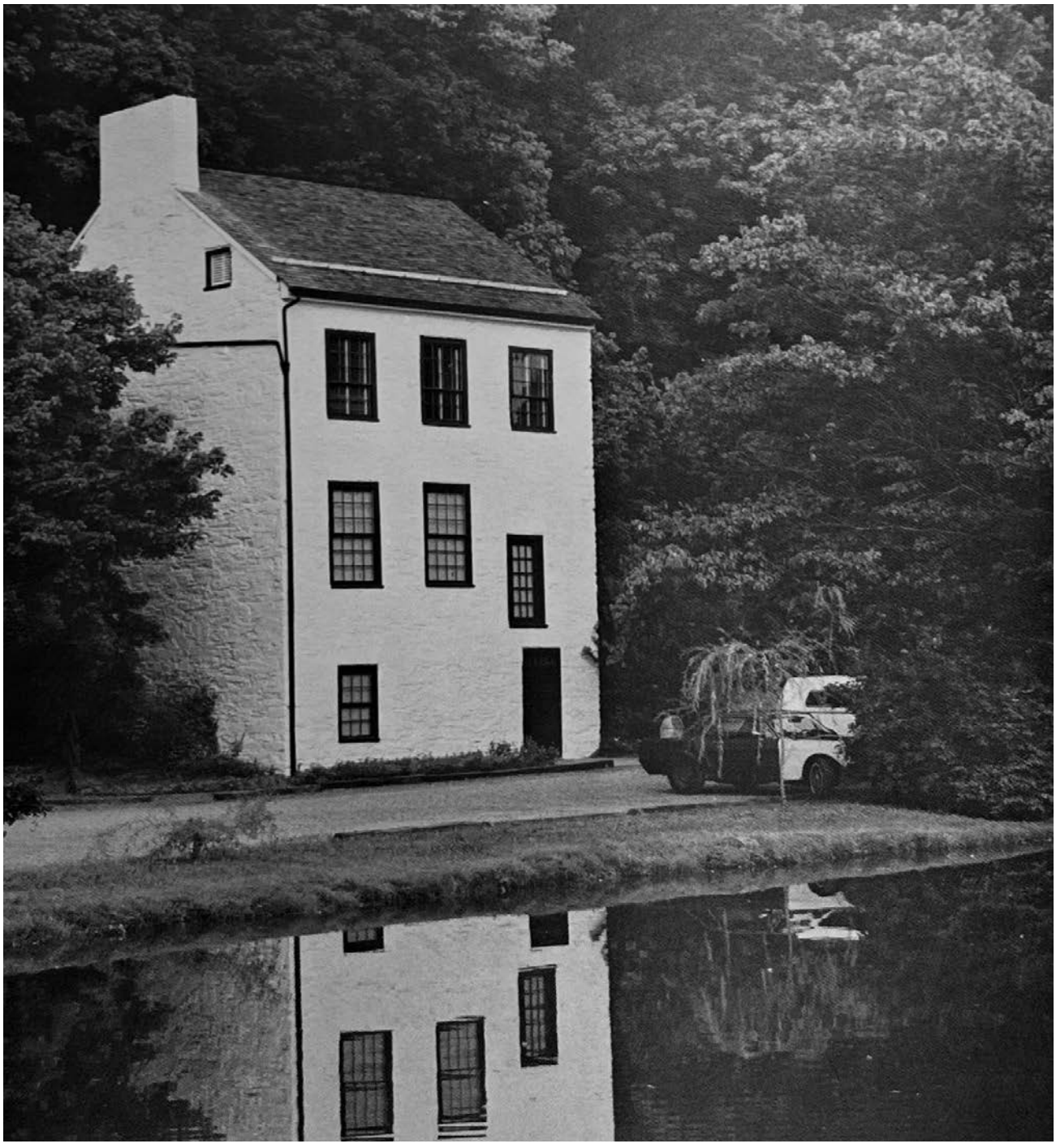
3 "Potomac River," American Rivers. https://www.americanrivers.org/river/potomac-river/

4 "Climate and Average Weather Year Round in Washington, DC" https://weatherspark.com/y/20957/Average-Weather-in-Washington-DC;-United-States-Year-Round

5 Climate Friendly Parks, "Chesapeake and Ohio Canal National Historical Park Climate Action Plan," National Park Service, 2010?, 1, 3.

6 Washington Times-Herald, August 2, 1953.

7 Louis Berger Group, Inc., *"Bold, Rocky, and Picturesque" Archeological Overview and Assessment and Identification and Evaluation Study of Rock Creek Park District of Columbia*, Volume 1 (National Park Service, 2008), 10.



Part Two

Treatment Framework ❖ Treatment Guidelines

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Chapter 4: Treatment Framework

Cover Photo: Photograph showing rehabilitation of the Abner Clouse House, undated (Alice Fales Stewart, The Palisades of Washington, D.C.)

Title Page: East entrance to Fletcher's Road culvert, facing west (QE, 2021)

Treatment Framework

This chapter explains the treatment framework for the Fletcher's Cove study area cultural landscape. The chapter includes an overview of existing laws, policies, and regulations that guide the treatment philosophy, management issues that relate to challenges and opportunities present in the existing landscape, the vision and goals directing treatment guidelines, and the selection of rehabilitation as the most appropriate treatment approach for the cultural landscape. Landscape treatment guidelines for the overall study area and site-specific guidelines for the LCAs are presented in Chapter 5.

EXISTING LAWS, POLICIES, REGULATIONS, AND GUIDANCE

- Archeological and Historical Preservation Act of 1974
- National Environmental Policy Act of 1969
- National Historic Preservation Act of 1966
- Resource Conservation and Recovery Act of 1976
- Comprehensive Environmental Response and Compensation and Liability Act (CERCLA) of 1984
- Americans with Disabilities Act
- Architectural Barriers Act
- Secretary of the Interior Standards for the Treatment of Historic Properties
- Secretary of the Interior Guidelines for the Treatment of Cultural Landscapes
- NPS Director's Order 28: Cultural Resource Management
- *2013 Chesapeake & Ohio Canal National Historical Park Foundation Document*
    - The park's Foundation Document outlines goals for protection and interpretation of natural and cultural resources as well as for providing recreational opportunities for visitors.
    - Opportunities are outlined for possible improvements to systems facilitating visitor experience such as the canal towpath, including increasing ADA-accessible routes.
- 2019 *Fletcher's Boathouse Transportation Upgrades Environmental Assessment and Assessment of Effects*
    - This document provides recommendations for a preferred alternative addressing transportation improvements at the Fletcher's Cove study area needed to address ongoing concerns and issues. The purpose of the project is to provide more direct and safer transportation

connections between Canal Road NW and the Fletcher's Boathouse, the C&O Canal towpath, and the Capital Crescent Trail.

- 2020 *Fletcher's Cover Transportation Upgrades FONSI and MOA*
  - The Finding of No Significant Impact (FONSI) documents the potential for adverse effects of Preferred Alternative B to historic buildings and structures, archeological resources, water resources, and visitor use and experience. Ultimately, a Finding of No Significant Impact was determined.
  - The Memorandum of Agreement (MOA) indicates a signed agreement for mitigation and construction of the preferred alternative.

OVERALL MANAGEMENT ISSUES

Management issues affecting the study area were documented through the Fletcher's Cove CLR scope of work and at the project kickoff meeting held in November 2021. Additional considerations were captured in the Treatment Workshop. Management issues are documented by landscape characteristic.

Natural Systems and Features

- Erosion in drainage and pedestrian circulation areas impacts natural and built topography.
- Siltation in Fletcher's Cove impacts historic appearance and use.
- Mangement strategies are needed in preparation for impacts related to climate changes such as sea level rise.

Land Use

- The maintenance area south of the Abner Cloud House is poorly defined or screened from visitor use areas.

Topography

- Fill piles in the North Woods obscure historic features such as the mill race and inhibit natural hydrologic patterns.

Spatial Organization

- Relationship of Abner Cloud House to Canal Rd NW and C&O Canal is obscured by vehicles when the parking area is busy.
- Encroachment of woody vegetation impacts views to Potomac River through the study area.

Constructed Water Features

- Interpretation of Potomac Company lock remnants
- Connection of the mill race remnant to the Canal Corridor has been impacted by fill and encroachment of woody vegetation

Circulation

- Study area entrance at Canal Rd NW is dangerous for visitors. There is a need for an updated circulation pattern at the entry.

- Signals and signage for single lane roads are unsafe or missing
- Pedestrian/cyclist conflicts occur where pedestrians cross the Capital Crescent Trail between the pedestrian bridge over the canal and Fletcher's Boathouse.
- Cyclist/vehicle conflicts occur at the maintenance access along the Capital Crescent Trail.
- Maintenance and emergency vehicle access is restricted by circulation routes. Larger vehicles must use the pedestrian bridge and towpath, leading to potential conflicts. Smaller vehicles can use the tunnel but lack of signage leads to potential conflicts with other vehicles.
- Accessibility standards are not met at either parking area.
- The circulation of canal boats beyond the Abner Cloud House is missing due to the height of the pedestrian bridge.
- Unauthorized social trails are difficult for park staff to maintain and lead to trampling of the surrounding landscape.
- Increased recreational and commuter bicycle use on trails can lead to conflict with other trail users.
- Cyclist speeds on the Capital Crescent Trail can endanger pedestrians at trail crossings.
- Access to boathouse, canal, and river is limited for maintenance vehicles.

Views

- Views to the Abner Cloud House from the Towpath Trail are impacted by vehicles parked between the canal and structure.
- Views to the Potomac River are impacted by the encroachment of woody vegetation throughout the study area.

Vegetation

- Strategies are needed for woody vegetation management, specifically to ensure safe visibility between circulation routes.

Buildings and Structures

- The pedestrian bridge across the canal impedes canal boat traffic and is in fair to poor condition; recommendations are needed to improve this structure and restore the circulation route.
- Remnants of the historic mill structure have been misidentified. Recommendations are needed to help preserve and interpret these features.

Small-Scale Features

- There are multiple styles of pedestrian wayfinding and interpretive signage.
- Multiple styles of edging materials are used. Recommendations are needed for a cohesive and effective strategy to delineate vehicular areas.

Archeological Sites

- Further study is needed to determine the extent of archeological resources located in the study area.

VISION

Preserve the historic character of the Fletcher's Cove cultural landscape and enhance it as an engaging and safe environment for visitors to learn about the history of the historic resources and enjoy recreational activities associated with the Potomac River and C&O Canal.

GOALS

The following goals were identified to focus treatment guidelines toward the needs of the study area both in general and as they relate to transportation improvements:

1. Preserve contributing features.
2. Align cultural landscape treatment recommendations with transportation safety goals as outlined in the 2019 Environmental Assessment.
3. Clarify wayfinding for vehicular and pedestrian circulation.
4. Identify interpretive opportunities.
5. Increase legibility of site's historic landscape features and create a moment along the towpath where site-specific history is legible.
6. Identify emergency and maintenance access opportunities to canal and rivefront areas with least impact to cultural landscape.
7. Address population pressure from multiple user groups in North and South Woods areas.
8. Evaluate condition of features for removal/replacement.
9. Integrate natural resource concerns into cultural landscape treatment guidelines (consider long-term resilience in light of climate change).
10. Expand understanding of hydrologic patterns of deposition around Fletcher's Cove.
11. Identify strategies for addressing debris along the riverbank with relation to causes, collection, and removal.
12. Increase ADA-compliant access and improve universal design to accommodate all visitors per 2013 Foundation Document.

TREATMENT APPROACH

The mission of the National Park Service (NPS) is to "preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations."[1]

The National Historic Preservation Act (NHPA) states that "the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people;" and "the preservation of this irreplaceable heritage is

in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans."[2] The NHPA requires each federal agency to establish a "preservation program for the identification, evaluation, and nomination to the National Register, and protection, of historic property."[3] Section 106 of the NHPA requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve. Regulations published by the Advisory Council on Historic Preservation (ACHP) guide federal agencies and other participants in the Section 106 process.[4] The Secretary of the Interior's Standards for the Treatment of Historic Properties are common sense historic preservation principles in non-technical language. They promote historic preservation best practices that will help to protect our nation's irreplaceable cultural resources.[5]

SECRETARY OF THE INTERIOR TREATMENT APPROACHES

The US Secretary of the Interior provides professional standards and guidance for the preservation treatment of historic properties listed in or eligible for the National Register of Historic Places. Four approaches to the treatment of historic properties are defined, including Preservation, Restoration, Rehabilitation, and Reconstruction. The most appropriate approach for the study area is rehabilitation.

Preservation

Preservation is the act of sustaining the existing form, integrity, and materials of a historic property. This approach is most appropriate for properties that have a high level of integrity and often includes presence of features or conditions from multiple time periods.[6] Although preservation is an appropriate treatment approach for the study area cultural landscape, preservation limits the ability to make changes and accommodate expanded use and interpretation identified by this and previous planning documents.

Rehabilitation- Preferred Treatment Approach

Rehabilitation allows repairs, alterations, and additions necessary to enable a compatible use for a property, as long as the portions or features which convey the historical, cultural, or architectural values are preserved.

Based on the current conditions and goals for future conditions and use, rehabilitation is the most appropriate treatment approach for the study area landscape. This approach provides an umbrella that preserves contributing features while rehabilitating site circulation, supporting visitor experience, and improving safety.

Under this approach, features that are not compatible with the historic character of the property may be removed. New elements that are compatible with historic conditions may be added to address current needs, such as improving accessibility and increasing safety for site visitors. Design of these elements requires careful consideration to provide additions that complement the historic features without creating a false sense of history.

Restoration

Restoration is the process of depicting the form, features, and character of a property as it appeared at a particular period in time. Elements that relate to earlier or later periods are removed in order to clearly represent one time period. A high level of documentation is necessary to ensure that the site accurately represents the historic period.[7]

Although restoration may be suitably applied to select historic landscape features within the study area, it is not the most appropriate overall approach for the Fletcher's Cove cultural landscape for two reasons. Firstly, current maintenance and user needs require features not present during the historic period, such as the comfort station/odor control facility, and it would be inappropriate to remove them. Changes to the historic landscape are needed to improve safety for park visitors and staff, especially at the site entrance on Canal Road NW, around the Fletcher's Road culvert, and at the pedestrian bridge over the canal. Secondly, there is not adequate documentary evidence to restore the landscape to represent any point during the period of significance.

Reconstruction

Reconstruction is the act of using new construction to depict a non-surviving site, landscape, building, structure, or object as it appeared at a specific period of time in its historic location. This approach is used only in landscapes with the highest level of significance where detailed documentation exists regarding the historic conditions of the property.[8]

Reconstruction is not the most appropriate treatment approach for the study area because adequate documentary evidence does not exist to reconstruct the entire study area to represent the period of significance, particularly given the continued evolution of vegetation and flux of structures surrounding the canal within that period. In addition, it would not be feasible to manage the entire area to represent one period of time, and current and desired use of the Fletcher's Cove study area requires features from different times, both within and outisde of the historic period. A rehabilitation approach allows for the reconstruction of selected features as needed or desired.

REHABILITATION AS RECOMMENDED TREATMENT APPROACH FOR FLETCHER'S COVE

The preferred treatment approach balances increasing visibility of the study area's historical features with necessary upgrades related to transportation and visitor safety.

Secretary of the Interior's Standards for the Rehabilitation of Cultural Landscapes

The Secretary of the Interior's Standards for rehabilitation are as follows. Refer to the Guidelines for Rehabilitating Cultural Landscapes for application guidance using the rehabilitation standards in cultural landscapes..[9]

- A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
- The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
- Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Endnotes

1 "About Us," National Park Service, accessed at https://www.nps.gov/aboutus/index.htm.

2 Section 1 of the National Historic Preservation Act, Public Law No. 89-665, as amended by Pub. L. No. 96-515: (b) (2) and (4).

3 Public Law No.89-665, as amended by Public Law No. 96-515, Section 306102 (a) and (b); NHPA Section 110 Guidelines (53FR 4727-46) and 36 CFR Part 800 – Protection of Historic Properties, https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf.

4 36 CFR Part 800 – Protection of Historic Properties, 36CFRPart800_as_amended2004_web.doc (achp.gov).

5 "The Secretary of the Interior's Standards-Technical Preservation Services, National Park Service," National Parks Service, US Department of the Interior, https://www.nps.gov/tps/standards.htm.

6 The Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes, accessed August 2020, https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/index.htm.

7 The Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes, accessed August 2020, https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/index.htm.

8 The Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes, accessed August 2020, https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/index.htm.

9 National Park Service, "Guidelines for Rehabilitating Cultural Landscapes: The Approach," accessed December 2021, https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/rehab/approach.htm.



Chapter 5: Treatment Guidelines

Title Page: Abner Cloud House from the towpath, facing east (QE, 2021)

Treatment Guidelines

The purpose of this chapter is to provide guidelines for preserving and enhancing historic landscape characteristics while accommodating future uses. Included are general treatment guidelines for the overall study area cultural landscape, as well as site-specific treatment guidelines for each landscape character area.

GENERAL TREATMENT GUIDELINES FOR OVERALL STUDY AREA

Treatment guidelines inform the overall appearance, maintenance, and use of the cultural landscape. The guidelines are presented in narrative and diagram form by landscape characteristic and are illustrated in Drawing Drawing RT- 1. When there is a need to address guidelines that span multiple LCAs, such as circulation, they are included in guidelines for the overall study area.

Treatment guidelines for the Fletcher's Cove cultural landscape balance goals of preserving historic features that contribute to the significance of the landscape with accommodating updates to circulation systems for increased visitor safety. By identifying opportunities for interpretation and increasing the legibility of cultural resources for site visitors, Fletcher's Cove can fulfill park goals of protecting and interpreting natural and cultural resources in addition to providing recreational opportunities, as outlined in the 2013 *Foundation Document*. Implementation of recommended transportation improvements creates more equitable access to cultural and recreational attractions in the study area and reduces conflicts between vehicles and pedestrians. Overall, treatment guidelines aim to create safe, fluid, and flexible routes through the site for all users with opportunities to engage the rich cultural landscape in a myriad of ways.

Overall Study Area Natural Systems and Features

Treatment guidelines for natural systems and features provide guidance for preserving the historic integrity of the cultural landscape while improving resilience to increased visitation and changes in climatic conditions.

- Follow *SOI Standards for the rehabilitation of cultural landscapes* with particular attention to Environmental Considerations.
  - Refer to Table 3-1, Table 3-2, and Table 3-3 for character-defining features and strive to avoid damage or loss when conducting work to improve or respond to environmental conditions.
  - Whenever possible, comply with environmental protection regulations in such a manner that character-defining features are preserved.
  - Work with environmental protection officials to investigate systems, methods, devices, or technologies of equivalent or superior effectiveness to those prescribed by regulations so that unnecessary alterations can be avoided.
  - Reclaim or re-establish natural resources in a manner that promotes the highest degree of environmental protection, while preserving historic features.
- Protect federally and locally-listed endangered species and habitat found in overall study area.
  - Threatened and endangered species listed by US Fish & Wildlife in the region include: yellow lance (*Elliptio lanceolata*), Hay's Spring amphipod (*Stygobromus hayi*), and the northern long-eared bat (*Myotis septentrionalis*).[1]
  - Endangered Species Act threatened and endangered species listed by NOAA Fisheries in the region include: Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*).[2] Shortnose sturgeon are expected to use the Fletcher's Cove area as spawning grounds in the months of March and April (Figure 5-3).[3]
  - Utilize the Section 7 Consultation Process to determine if additional coordination is required to comply with the Endangered Species Act.
- As NPS and FHWA explore ways to address erosion around Fletcher's Road and Culvert, work with park cultural resource specialist to develop strategies that avoid or minimize effects to the cultural landscape.
- Follow 2019*Environmental Assessment* recommendations to add bioretention and bioswales to mitigate stormwater runoff ( ).
  - Refer to Department of Energy and the Environment Stormwater Best Management Practices (Figure 5-2).
- Expand *C&O Canal National Historical Park Climate Action Plan* to include recommendations for addressing predicted climate change impacts that are likely to affect Fletcher's Cove, such as sea level rise and increased frequency and intensity of precipitation events.
- Consider undertaking a comprehensive study of hydrology in the study area to identify potential future threats and recommend strategies to protect the cultural landscape.



Figure 5-1. Endangered shortnose sturgeon (NOAA Fisheries, ND)



Figure 5-2. Bioretention basins can be planted with native vegetation to infiltrate stormwater and reduce runoff while retaining contributing open vegetation character (City of Lincoln, NE)

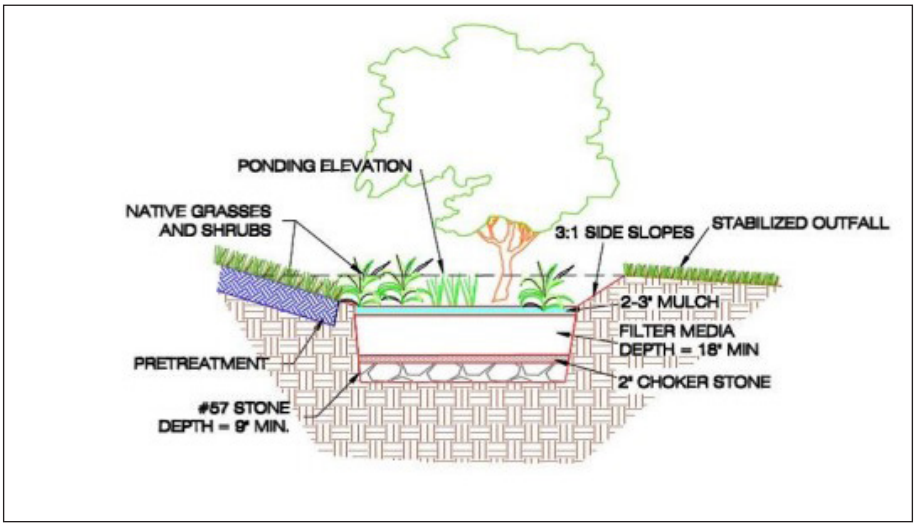


Figure 5-3. Bioretention basin detail section from Draft District of Columbia Stormwater Management Guidebook (DDOE, ND)

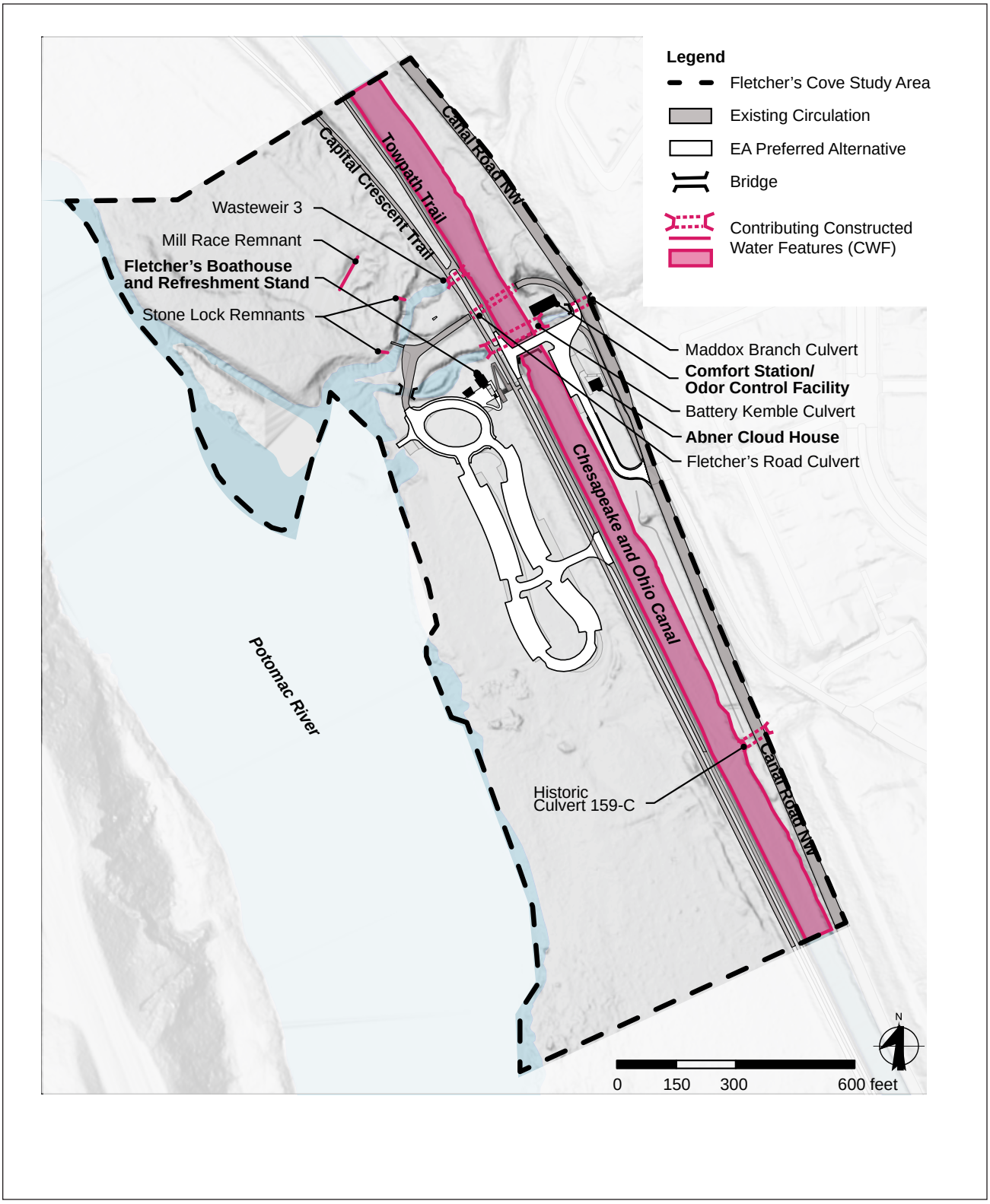


Figure 5-4. Contributing constructed water features in the overall study area (QE, 2022)

Overall Study Area Constructed Water Features

Treatment guidelines for the overall study area's constructed water features address key features in the cultural landscape at Fletcher's Cove, which are illustrated in Figure 5-4.

- Preserve and interpret constructed water features, per 2013 *Foundation Document*. Contributing features include:
  - C&O Canal
  - Wasteweir 3
  - Mill Race remnant (conjecture)
  - Maddox Branch Culvert
  - Battery Kemble Culvert
  - Fletcher's Road Culvert
  - Culvert 159-C

Overall Study Area Topography

Treatment guidelines for natural and built topography in the overall study area provide guidance for preserving contributing topographic features and allowing change to improve resilience to environmental conditions.

- Preserve contributing topography including:
  - Natural site topography
  - Floodplain topography
  - Topography associated with the C&O Canal, Mill Race, and B&O Railroad.
- If changes to topography are needed, follow SOI Standards for the rehabilitation of cultural landscapes with particular attention to Topography and Environmental Considerations.
  - Refer to Table 3-1, Table 3-2, and Table 3-3 for character-defining topographic features and strive to avoid damage or loss when conducting work to improve or respond to environmental conditions.
  - Whenever possible, comply with environmental protection regulations in such a manner that character-defining topographic features are preserved.
  - Work with environmental protection officials to investigate systems, methods, devices, or technologies of equivalent or superior effectiveness to those prescribed by regulations so that unnecessary alterations can be avoided.
  - Reclaim or re-establish natural resources in a manner that promotes the highest degree of environmental protection while preserving historic features.

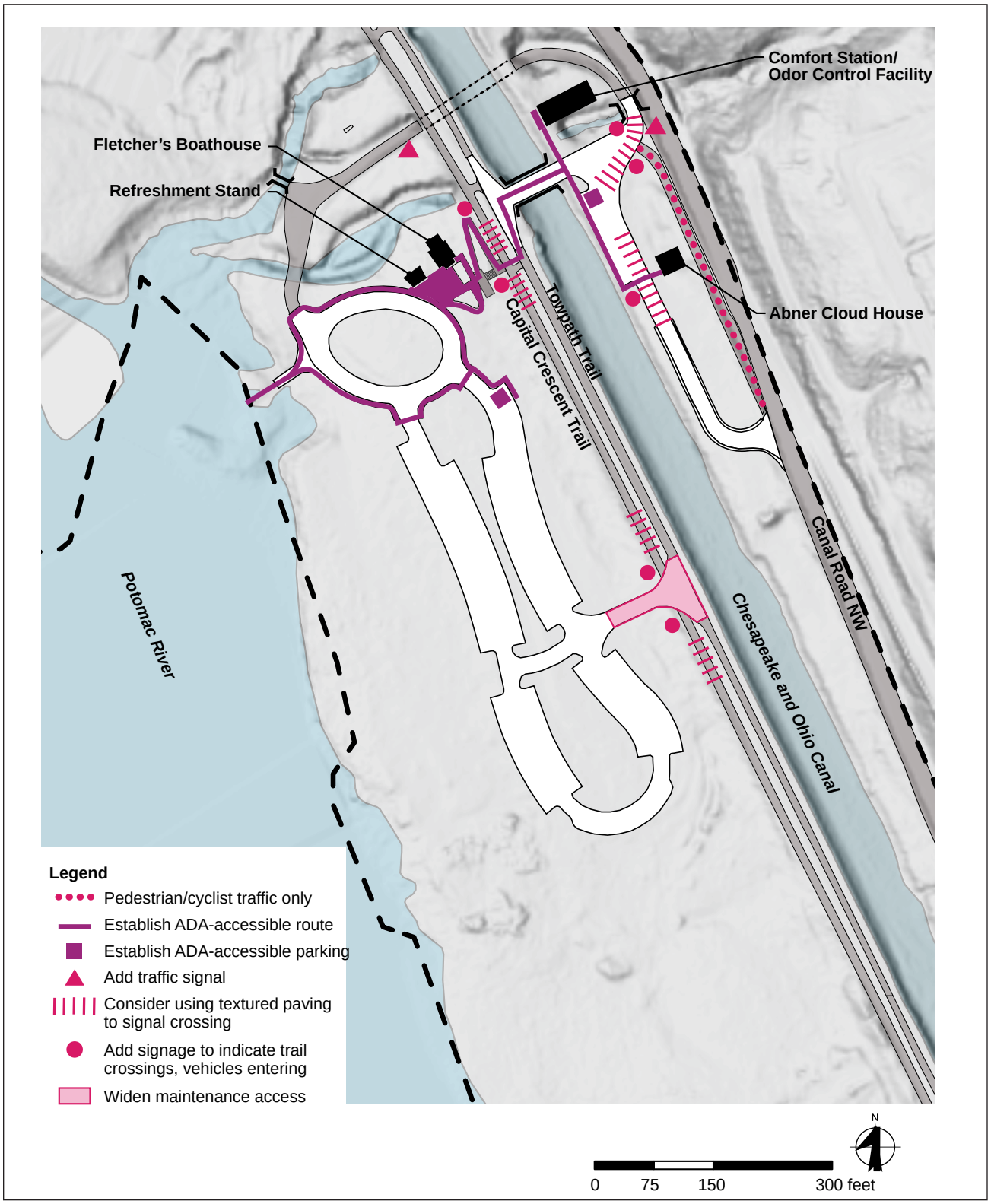


Figure 5-5. Circulation treatment guidelines for the overall study area (QE, 2022)

Overall Study Area Circulation

Circulation treatment guidelines for the overall study area improve representation of the historic character of circulation routes within the study area while meeting the needs of multiple recreational user groups and supporting maintenance operations. Guidelines focus on balancing site entry improvements recommended by the 2019 *Environmental Assessment* preferred alternative with preservation of contributing features. In addition, they address improvements to pedestrian safety thoughout the study area. Circulation guidelines are illustrated in Figure 5-5.

- For projects associated with the C&O Canal National Historical Park, develop a design palette compatible with the historic character of the park, which includes approved surfaces, features, and signage to provide a cohesive experience to visitors.
    - Apply design palette to circulation improvements at Fletcher's Cove.
- Establish ADA-accessible parking areas and pathways through the study area.
    - If utilizing impervious paving materials for accessible parking areas, group spaces together to consolidate impervious areas.
    - Follow *SOI Standards for the Rehabilitation of Cultural Landscapes* to create an ADA-accessible entrance to the comfort station that is compatible with the historic landscape.
- Discourage use of social trails on east side of C&O Canal throughout the study area to minimize effects from trampling.
- Follow 2019 *Environmental Assessment* recommendations to improve transportation and visitor safety.
    - Separate pedestrian and vehicular circulation at site entrance.
    - Add signaling at Fletcher's Road Culvert.
    - Widen maintenance access ramp to improve visibility.
    - Create ADA-accessible connections to boathouse landing from existing ramp, stairs, and pedestrian bridge.
- Improve pedestrian safety at the Capital Crescent Trail where the pedestrian bridge crosses to the boathouse stairs and ramp.
    - Utilize NPS Standards for signage to demarcate trail crossings (See Figure 5-10 for typical signage hierarchy).
    - Consider use of alternative surfacing to indicate pedestrian crossing.
- Add signage to indicate maintenance access from Towpath and Capital Crescent Trails.
    - Utilize NPS Standards for signage to demarcate vehicles entering (See Figure 5-10 for typical signage hierarchy).
- Follow NPS/FHWA project recommendations to repair surface of Fletcher's Road.

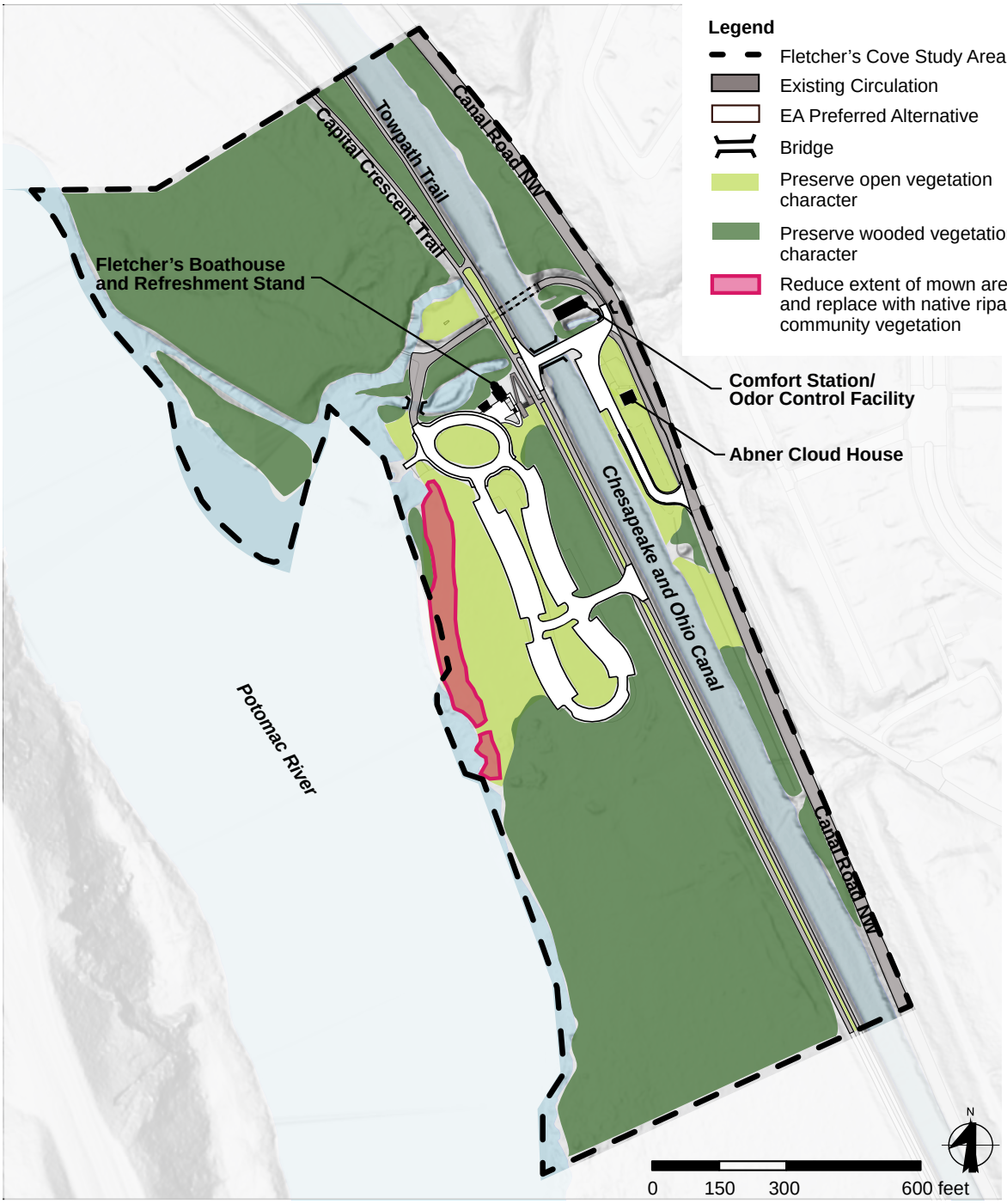


Figure 5-6. Vegetaion treatment guidelines for the overall study area (QE, 2022)

Overall Study Area Vegetation

Vegetation treatment guidelines address maintenance of overall site vegetation while incorporating goals related to preservation of historic character, climate change adaptation, and environmental resilience. Guidelines are illustrated in Figure 5-6.

- Preserve open and woody vegetation character areas.
- Retain current extent of mown areas around C&O Canal.
- Reduce extent of mown vegetation in riparian areas and replace with native riparian community species (Figure 5-7).
    - A mix of native overstory and understory trees and shrubs recommended for Resource Protection Areas (RPAs) along the Potomac River is available through Fairfax County, VA's 2020 Riparian Buffers brochure.[4]
- Maintain current extent of successional woods.



Figure 5-7. Example of a newly planted riparian buffer near Lititz, PA (Al Todd, 2014)

Overall Study Area Buildings and Structures

Treatment guidelines for buildings and structures address documentation, assessment, and preservation of contributing buildings and structures in the overall study area.

- Document and preserve contributing buildings and structures including:
  - Fletcher's Boathouse (Figure 5-8)
  - Refreshment Stand
- Document and assess mill structure remnant and determine treatment strategy and if interpretation is appropriate.
- Update the 1966 *Historic Structure Report* for the Abner Cloud House.



Figure 5-8. Fletcher's Boathouse (foreground) and Refreshment Stand (left), facing north (QE, 2021)



Figure 5-9. The west and south facades of Fletcher's Boathouse, facing northeast (QE, 2021)

Overall Study Area Small-Scale Features

Guidelines for the treatment of small-scale features in the study area present a cohesive signage program for Fletcher's Cove that balances historic integrity with user safety and best practices.

- For projects associated with the C&O Canal National Historical Park, develop a design palette compatible with the historic character of the park, which includes approved surfaces, features, and signage to provide a cohesive experience to visitors.
  - Apply design palette to signage, wayfinding, and small-scale features improvements at Fletcher's Cove.
- Utilize 2002 *National Park Service UniGuide Standards for Identification, Wayfinding, and Visitor Information for National Parks* to develop a hierarchy of signage and wayfinding for interpretation and visitor safety (Figure 5-10 and Figure 5-11).
- Utilize compatible materials and follow *SOI Standards for the Rehabilitation of Cultural Landscapes* when adding small-scale features.



Figure 5-10. An example of signage hierarchy for Visitor Information Systems (NPS Uniguide, 2002)



Figure 5-11. Signage along the towpath near the Williamsport Visitor Center (visitmaryland.org, ND)

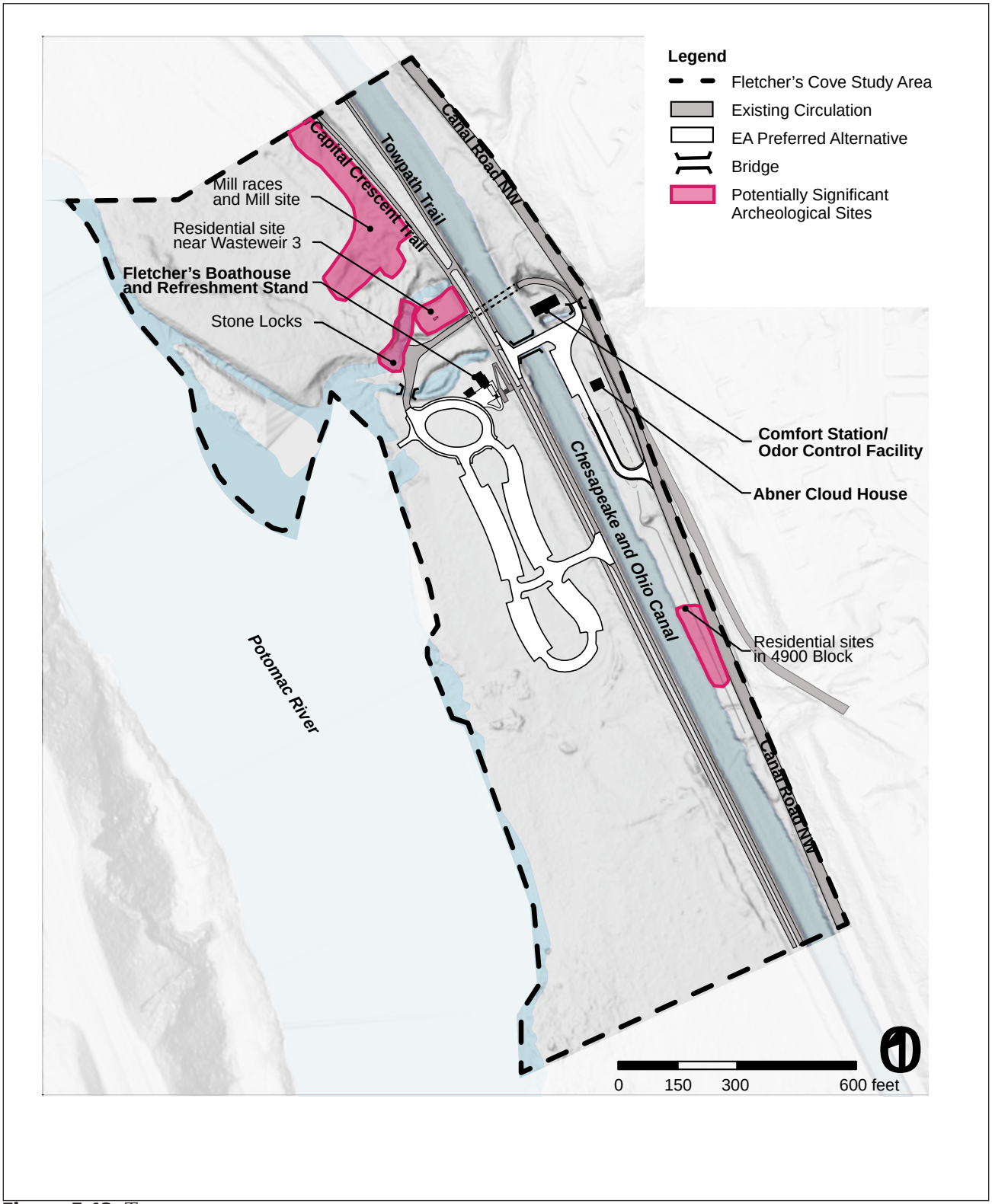


Figure 5-12. Treatment guidelines for potentially-significant archeological sites (QE, 2022)

Overall Study Area Archeological Sites

Treatment guidelines for archeological sites provide guidance for the investigation of potentially-signifiicant historic sites within the study area and are illustrated in Figure 5-12.

- Conduct Phase 1 archeological investigations of potentially significant archeological sites, including:
  - Mill races (Figure 5-14)
  - Mill site
  - Stone locks
  - Residential site near Wasteweir 3
  - Residential sites in 4900 block of Canal Road NW (south of Abner Cloud House, between Canal Road NW and C&O Canal)
- If significant sites are identified, develop recommendations for preservation and consider opportunities for interpretation.



Figure 5-13. Concrete and stone remnants adjacent to the mill race, facing south (QE, 2021)



Figure 5-14. Potential stone lock remnants below Wasteweir 3, facing south (QE, 2021)

SITE-SPECIFIC GUIDELINES

CANAL CORRIDOR LCA

Treatment guidelines for the Canal Corridor LCA balance the preservation of contributing landscape features with improved visitor safety and maintenance/ emergency vehicle access. Guidelines for the Canal Corridor LCA incorporate recommendations from the 2019 *Environmental Assessment* preferred alternative and provide guidance for using the *SOI Standards for the Rehabilitation of Cultural Landscapes* in future design decisions.

Contributing features in the Canal Corridor LCA include the Abner Cloud House, Fletcher's Road, C&O Canal, Towpath Trail, and a series of culverts associated with the canal. The 2019 *Environmental Assessment* preferred alternative recommends changes to vehicular circulation and parking to improve unsafe conditions for vehicles, cyclists, and pedestrians that currently exist at the site entry from Canal Road NW. The addition of a vehicular ramp to the south of the Abner Cloud House alters historic circulation patterns, the historic Fletcher's Road alignment is retained for pedestrian and cyclist use, and a large buffer is created to rehabilitate the landscape character surrounding the house. ADA-accessible parking spaces are provided along with accessible routes to the Abner Cloud House, comfort station/odor control facility, and across a newly designed bridge for pedestrians as well as maintenance and emergency vehicles. The addition of the vehicle ramp and updates to non-contributing structures such as the bridge over the canal and the comfort station/odor control facility will affect historic spatial organization, circulation, and views. However, these new features greatly improve visitor saftey. It is recommended that the *SOI Standards for the Rehabilitation of Cultural Landscapes* be utilized to develop designs that are compatible with the historic character of the landscape.

Treatment guidelines are illustrated on Drawing Drawing RT- 1.

Canal Corridor Land Use

Treatment guidelines for land use within the Canal Corridor LCA are based on existing site use and the 2019 *Environmental Assessment* preferred alternative.

- Reconsider the addition of overflow parking and a maintenance road on the east side of the canal per 2019 *Environmental Assessment* due to encroachment on canal berm (Figure 5-15).
- Determine specific maintenance and parking needs within the Canal Corridor LCA.
    - If needs cannot be met without the addition of a designated maintenance use area or overflow parking, design these features to preserve contributing features and follow the *SOI Standards for the Rehabilitation of Cultural Landscapes*.

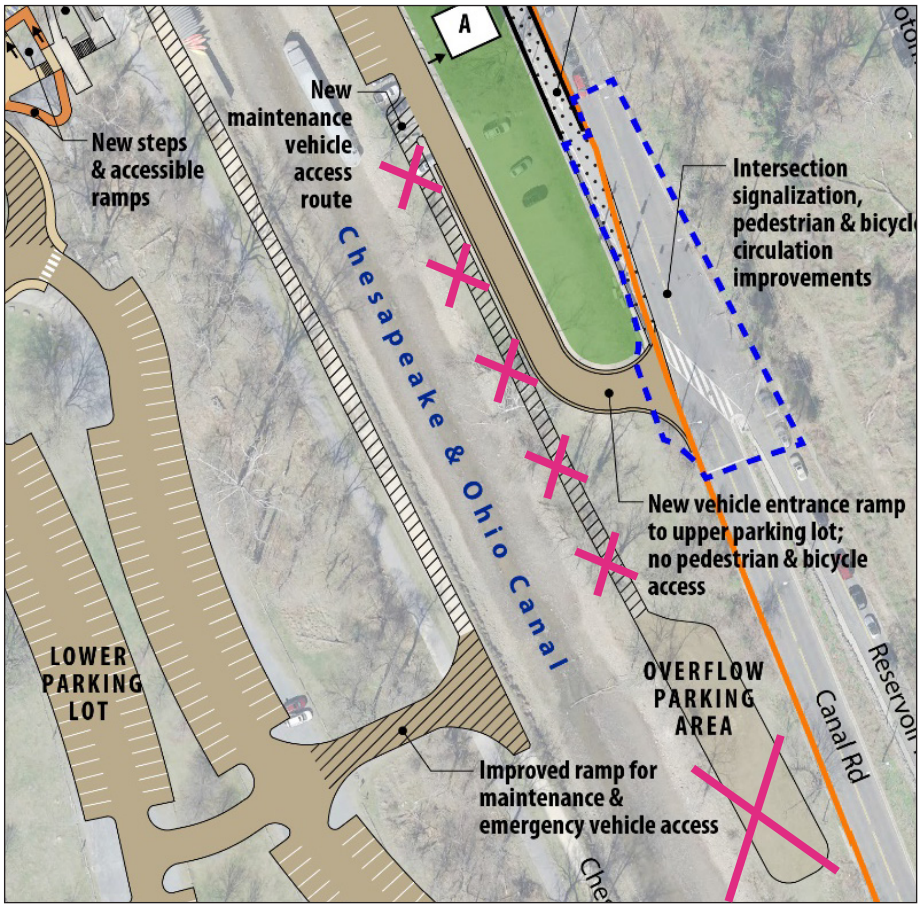


Figure 5-15. Maintenance access road and overflow parking area proposed in EA Preferred Alternative (Not Recommended) (NPS, 2019)

Canal Corridor Spatial Organization and Views

Treatment guidelines for spatial organization and views in the Canal Corridor LCA incorporate recommendations from the 2019 Environmental Assessment while balancing the preservation of contributing features. Treatment guidelines provide a reference for additional rehabilitation measures that could be taken as funding becomes available. Treatment guidelines are illustrated in Figure 5-17.

- Follow 2019 *Environmental Assessment* recommendations to reduce parking areas between the canal and Abner Cloud House.
- Follow 2019 Environmental Assessment to establish a buffer area around the Abner Cloud House.
    - Consider adding vegetation to improve the setting associated with the house.
    - Consider using canopy trees to provide shade.
    - Follow *SOI Standards for the Rehabilitation of Cultural Landscapes* in development of buffer design.
- If funding is available, consider establishing a program of routine selective pruning of woody vegetation to rehabilitate historic views between the Abner Cloud House and Potomac River (Figure 5-16).



Figure 5-16. Historic photograph depicting the open character of the canal berm, facing south (LOC, 1909)

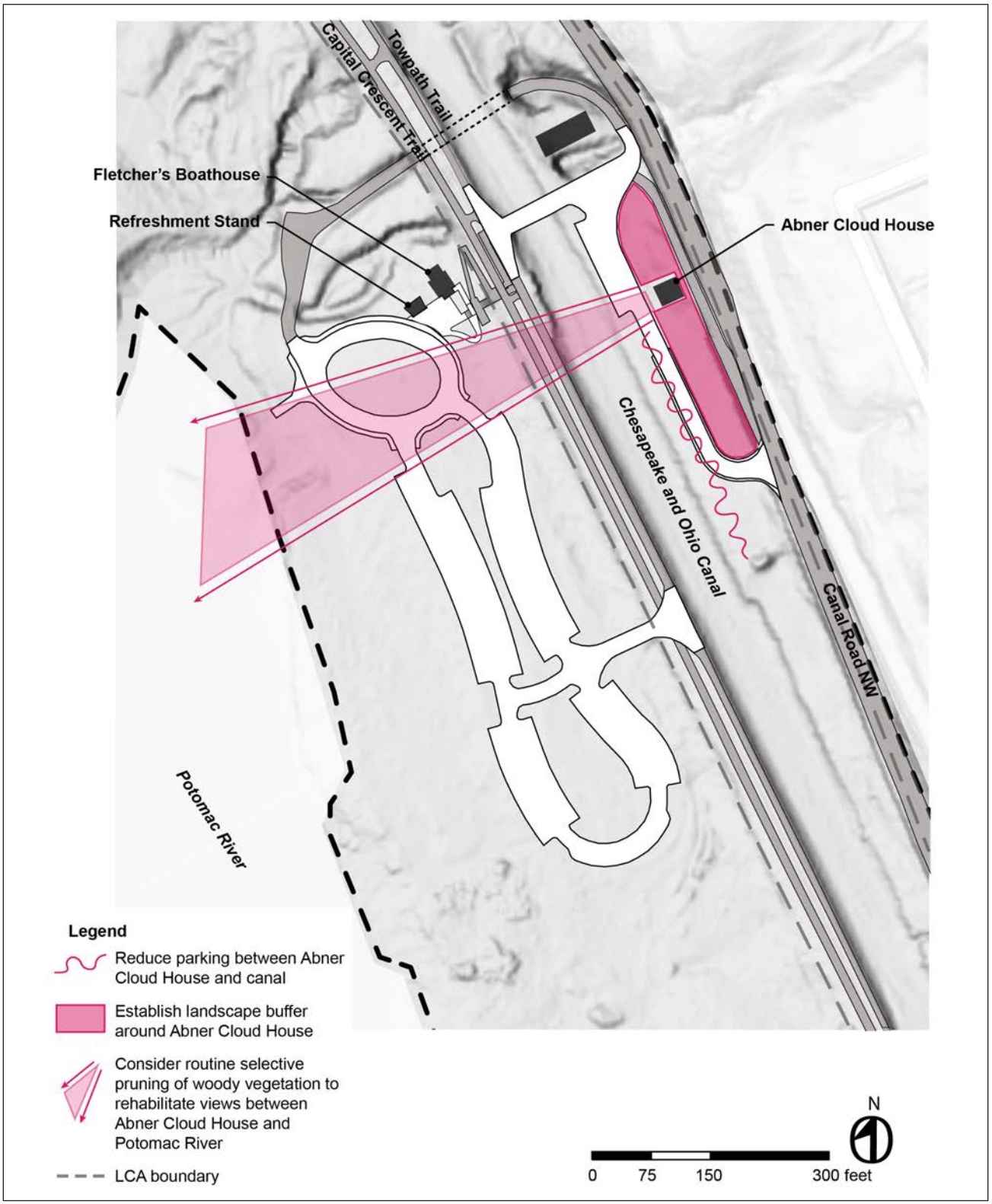


Figure 5-17. Spatial organization and views treatment guidelines for the Canal Corridor LCA (QE, 2022)

Canal Corridor Vegetation

Treatment guidelines for vegetation in the Canal Corridor LCA emphasize preserving and enhancing the historic character of the vegetation around the Abner Cloud House and encouraging strategic pruning and removal for increased safety and access to historic views.

- Retain existing mature trees around the Abner Cloud House. If needed, replace and supplement with vegetation that supports the historic character of mature deciduous trees and lawn.
    - Annuals, perennials, shrubs, and ornamental plantings are not recommended for planting areas around the Abner Cloud House.
- Follow 2019 *Environmental Assessment* recommendation to remove vegetation within sight triangles at maintenance ramp (Figure 5-19).
- If funding is available, consider establishing a program of routine selective pruning of vegetation to reestablish views from the towpath to the Potomac River.
- Utilize the *SOI Standards for the Rehabilitation of Cultural Landscapes* to design a landscape buffer around the Abner Cloud House that is compatible with the historic character of the landscape (See Canal Corridor Spatial Organization and Views).



Figure 5-18. Existing vegetation surrounding the Abner Cloud House, facing east (QE, 2021)

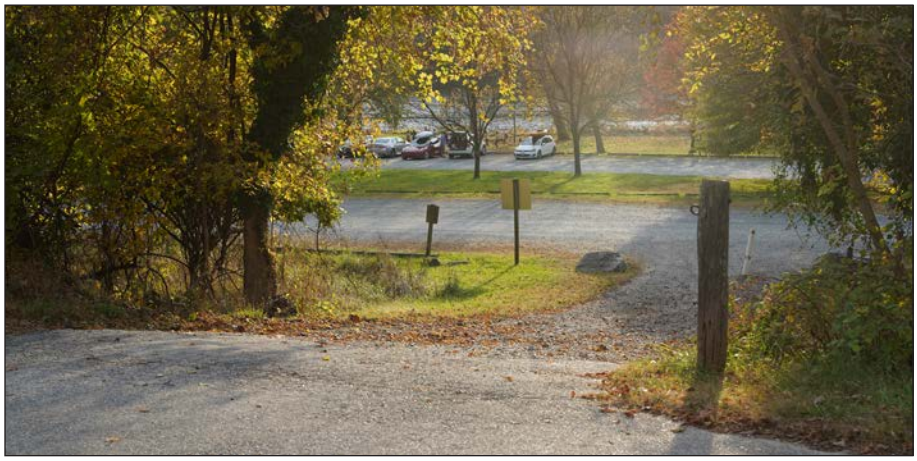


Figure 5-19. Existing woody vegetation blocks sight triangles between the mainenance access to the Towpath and Capital Cresent Trails, facing west (QE, 2021)

Canal Corridor Buildings and Structures

Treatment guidelines for buildings and structures in the Canal Corridor LCA focus on compatible upgrades to existing structures.

- Follow *SOI Standards for the Rehabilitation of Cultural Landscapes* to ensure design of new bridge across the canal to improve maintenance and emergency vehicle access is compatible with the historic landscape (Figure 5-20).
- Condition of the Maddox Branch vehicular bridge is being assessed by NPS and FHWA (Figure 5-21).
    - Integrate *SOI Standards for the Rehabilitation of Cultural Landscapes* into project design to avoid affecting historic integrity.
    - If the design cannot be aligned with the SOI Standards, justify the need to make the changes that will affect the historic bridge.



Figure 5-20. Existing pedestrian and maintenance/ emergency vehicle bridge is deteriorating and constructed of incompatible materials, facing north (QE, 2021)



Figure 5-21. Maddox Branch vehicular bridge and abutments, facing east (QE, 2021)

RIVERFRONT RECREATION LCA

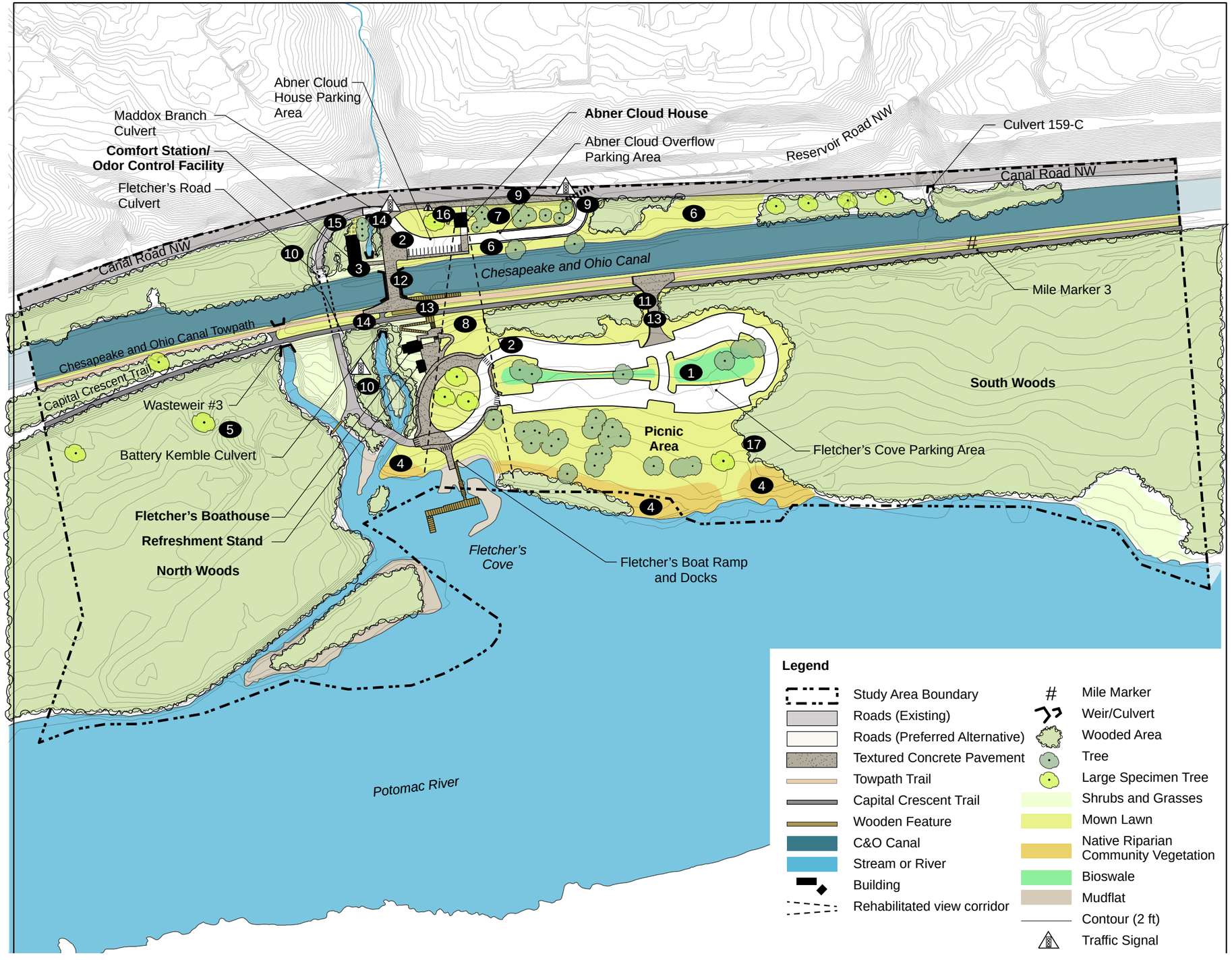
Treatment guidelines for the Riverfront Recreation LCA are focused on the protection of the historic landscape through improving resilience while improving ecological function and structure of the cove environment. Concerns related to the conservation of a healthy Fletcher's Cove ecosystem, both for the protection of endangered species as well as the ongoing recreational use by visitors, are addressed with recommendations for future study of this complex riparian area. Guidelines support the ongoing maintenance of the parklike landscape in the LCA while encouraging implementation of bioretention and bioswale technology and expanding the unmown riparian area immediately adjacent to the river. Treatment guidelines direct preservation of the site for use by recreational visitors while improving access for maintenance and emergency vehicles and supporting research into climate adaptation strategies. Using the 2015 *Climate Action Plan* as a basis for energy conservation, guidelines recommend additional study into climate resilience strategies so that the area can continue providing recreational opportunities into the future.

Riverfront Recreation Natural Systems and Features

- A project to improve the health of Fletcher's Cove is being explored by NPS and the District Department of Energy and the Environment:
    - Integrate *SOI Standards for the Rehabilitation of Cultural Landscapes* into project design to avoid affecting historic integrity.
    - If the design cannot be aligned with the SOI Standards, justify the need to make the changes that will affect the historic landscape.

Riverfront Recreation Vegetation

- Maintain canopy trees in the picnic area.
- Remove debris from the edge of the South Woods.
- Follow 2019 *Environmental Assessment* recommendation to integrate bioretention and bioswales as a part of the reconfigured parking area.



Chesapeake and Ohio Canal National Historical Park

Fletcher's Cove

Recommended Treatment

1. Add bioretention and bioswales
2. Create ADA-accessible parking space(s)
3. Create ADA-accessible entrance to comfort station
4. Reduce extent of mown lawn and replace with native riparian community vegetation
5. Document and assess mill structure remnants
6. Reconsider addition of overflow parking and maintenance road at canal berm
7. Establish landscape buffer around the Abner Cloud House
8. Consider rehabilitating historic views between Abner Cloud House and Potomac River
9. Separate pedestrian and vehicular circulation at site entrance
10. Add signaling at Fletcher's Road Culvert
11. Widen maintenance access ramp to improve visibility
12. Follow *SOI Standards for Rehabilitation of Cultural Landscapes* to ensure compatibility when redesigning the bridge over the canal
13. Utilize NPS signage standards to demarcate trail crossing
14. Consider textured concrete paving to indicate pedestrian crossing or route
15. Follow NPS/FHWA project recommendations to repair surface of Fletcher's Road
16. Retain existing mature deciduous trees and lawn
17. Remove debris from the edge of the South Woods

Sources

1. Road, building, trail, hydrology and contour data from National Park Service, DC Geodatabase, 2021
2. Drawing by Quinn Evans, ArcMap 10.8

0 100 200 400 Feet

1 inch = 200 feet

	October 2022	**RT-1**

Drawing RT- 1. Recommended Treatment Drawing

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Endnotes

1 "Listed species believed to or known to occur in District of Columbia," Environmental Conservation Online System, US Fish & Wildlife Service. Accessed at: https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=DC&stateName=District%20of%20Columbia&statusCategory=Listed

2 "Sturgeon," ESA Threatened & Endangered, National Oceanic and Atmospheric Administration Fisheries, Accessed at: https://www.fisheries.noaa.gov/species-directory/threatened-endangered?title=sturgeon&species_category=1000000031&species_status=any&regions=1000001111&items_per_page=25&sort=

3 Kynard, et al. 2007, pages 2, 7. Accessed at: https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27

4 "Riparian Buffers: Protecting streams and water quality," Fairfax County, VA. publication. August 2020. Accessed via: https://www.fairfaxcounty.gov/parks/sites/parks/files/assets/documents/nature-history/riparian-buffers-brochure.pdf

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Title Page: **Photograph showing some of the homes along the canal demolished in 1958 (*Evening Star*, 1953)**

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Archival Research

In-person Research:

Research was conducted at the park archives in Williamsport, Maryland, on 16 November 2021. Justin Ebersole and Blyth McManus gave Mike Mitchell an introduction to the park's collections, including Maintenance Files and various reports. Much of the materials dated to the 1970s–90s and covered topics such as dredging, the construction of the man-made island, and the construction of the stairs and ramp. Of particular note is a ca.-nineteenth-century painting with an unknown date and by unknown artist that depicts the site.

Research was conducted at the Peoples' Archive at the Martin Luther King, Jr., Memorial Library in Washington, D.C., on 18 November 2021. Archival holdings consulted include the library's photograph collection, books, and vertical files on the C&O Canal and the Palisades neighborhood. The materials covered a variety of topics, including the construction of the C&O Canal, the history and development of Palisades, and the mid-1950s demolition of houses that flanked the Abner Cloud House along Canal Road NW.

Online Research:

The online collections of both the Library of Congress and National Archives and Records Administration were consulted. An 1827 map that shows the project site was discovered in the National Archives' online collection. A number of historic maps and diagrams were found in the online collections of the Library of Congress. These documents offered particularly helpful information about the physical arrangement of the project site from the early nineteenth century. The online collection of the Historical Society of Washington, DC, was consulted. Several photographs of the project site dating to the mid-twentieth century were found in their collection.

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