SECTION 106 ASSESSMENT OF EFFECTS FOR HISTORIC PROPERTIES

Chesapeake & Ohio Canal National Historical Park
Potomac Submerged Channel Intake

DRAFT

June 2016

Section 106 Assessment of Effects for Historic Properties:

Chesapeake & Ohio Canal National Historical Park

Potomac Submerged Channel Intake

DRAFT

June 2016

This page intentionally left blank

ABSTRACT

Washington Suburban Sanitary Commission (WSSC) proposes to construct a new offshore submerged channel intake for water supply at its Potomac Water Filtration Plant (WFP). The Potomac WFP is located along River Road near Potomac, Montgomery County, Maryland. The Chesapeake and Ohio Canal National Historical Park (C&O Canal NHP or the park) is located parallel to the Potomac River and passes between the existing water intake structure and the remaining facilities of the WFP. The project would involve construction activities related to the new channel intake and the location of permanent WFP structures within the C&O Canal NHP. Since some of the existing and proposed intake facilities reside on National Park Service (NPS) property within the C&O Canal NHP, WSSC is planning to purchase and provide land to the NPS in exchange for a perpetual easement for the existing and proposed intake facilities.

Sections 110 and 106 regulations require that the NPS identify historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) within the project's Area of Potential Effects (APE), assess effects to historic properties, avoid, minimize, and/or mitigate any adverse effects, and consult with Maryland's State Historic Preservation Officer, as represented by the Maryland Historical Trust (MHT), and other consulting parties throughout the Section 106 process, as appropriate.

During identification efforts, three historic properties listed in or determined eligible for the NRHP have been identified within the Potomac submerged channel intake APE. These historic properties include two multicomponent archeological sites, 18MO633 and 18MO719, and the C&O Canal. In addition, two associated contributing elements to the Canal, the canal prism and the towpath, are also located within the APE; neither are individually eligible for the NRHP.

As a result of the effects assessments documentation, the NPS determined that there will be an adverse effect to one historic property, archeological site 18MO633. The project was determined to have no adverse effect on four properties, archeological site 18MO719, the C&O Canal, and its two associated contributing resources Mile 17–18 Canal Prism and Mile 17–18 Towpath.

Based on the Section 106 effects assessments, the NPS determined that the proposed project would have an **Adverse Effect** on historic properties.

This page intentionally left blank

TABLE OF CONTENTS

List of Figures

List of Tables

INTRODUCTION

Washington Suburban Sanitary Commission (WSSC) proposes to construct a new offshore submerged channel intake for water supply at its Potomac Water Filtration Plant (WFP). The Potomac WFP is located along River Road near Potomac, Montgomery County, Maryland, on the north side of the Potomac River (Figure 1 and 2). The purpose of the federal action is to respond to WSSC's proposal considering the purpose and resources of C&O Canal NHP, as expressed in statute, regulation, policy, and the NPS objectives in taking action. WSSC's need for the proposed submerged channel intake is to provide a consistently higher-quality raw water source than can be achieved using the existing onshore intake. Construction of a new submerged channel intake would require a temporary cofferdam in the Potomac River to provide a "dry" working area. The project would involve construction activities in and adjacent to the Chesapeake and Ohio Canal (C&O Canal) National Historical Park (NHP). A temporary construction access road including embankments across the Potomac River and C&O Canal NHP would be needed to allow access from Potomac WFP property to construction areas. Finally, an onshore intake shaft, a boat ramp, a parking area, and a permanent access road would be constructed to support maintenance activities for the new facilities. Currently four alternatives for this project, including a no-action alternative, are being evaluated and were presented in the Environmental Assessment (EA) entitled *Chesapeake & Ohio Canal National Historical Park Potomac Submerged Channel Intake Environmental Assessment*.

Cultural resources investigations for the Potomac submerged channel intake project have been ongoing since 2007. Historic buildings, structures, objects and districts in the project area and surrounding area have been documented both as part of the park's National Register of Historic Places (NRHP) nomination and for the purposes of effectively managing the resources. A single comprehensive archeological survey was conducted for the entire park from 2002 to 2010. The goal of the survey was not to identify all of the archeological sites within the park, but rather to survey locations that would address regional issues and problems in what was termed "archeological triage" (Fiedel et al. 2005). The area of potential effects (APE) for the current Potomac submerged channel intake project was not surveyed during the 2002 to 2010 survey. Therefore, in 2007 a Phase I archeological survey of the APE was completed (Cheek et al. 2007). Supplementary Phase I survey and Phase II examinations of two sites identified within the project's APE were completed in 2015 (Klein et al. 2015).

The cultural resources studies completed as part of the Potomac submerged channel intake project were developed to comply with Section 106 of the National Historic Preservation Act of 1966 as amended (NHPA) (36 CFR 800), Section 101(b)(4) of the National Environmental Policy Act of 1969, Section 1(3) and 2(b) of Executive Order 11593, the Maryland Environmental Policies Act of 1973, and the Maryland Historical Trust (MHT) Act of 1985. The Section 106 assessments that have been performed during the development of the EA have considered only historic properties in the APE. The project APE is defined as the geographical area within which an undertaking may cause changes in the character or use of

historic properties, if any such properties exist. The APE was developed by the National Park Service (NPS) in consultation with the MHT, the State Historic Preservation Office (SHPO). The APE includes both the Limits of Disturbance (LOD) and the surrounding area where alterations to a historic property's setting and feeling could occur. Although the project has a single APE, the area subjected to archeological investigations coincides with the LOD—the footprint where any subsurface disturbances may occur. Indirect impacts to the built environment were assessed within the entire APE.

The goals of the assessments were to identify resources over 50 years in age within the project corridor and evaluate their potential for listing in the NRHP. In general, properties less than 50 years of age are presumed to be ineligible for the NRHP, unless they possess exceptional importance.

Cultural resources evaluations and assessments within the current project APE, including both Phase I archeological surveys and Phase II site evaluations, have been completed over the past five years (see Appendix A for copies of SHPO concurrence on documentation). Earlier studies occurred in the general project area and considered resources within a broader geographic area. The results of these studies have been submitted to the MHT for their review and concurrence, including the submission of reports.

This report provides a summary description of the Potomac submerged channel intake project, summarizes the results of the cultural resources studies completed to date, and provides data on the effects, if any, to all historic properties within the APE that are eligible for or are listed in the NRHP. Following a description of individual historic properties, an overall project effect is presented. This report was prepared by Michael L. Carmody, MA, RPA of Dovetail Cultural Resource Group. Mr. Carmody meets or exceeds the Secretary of the Interior Standards as an archaeologist.

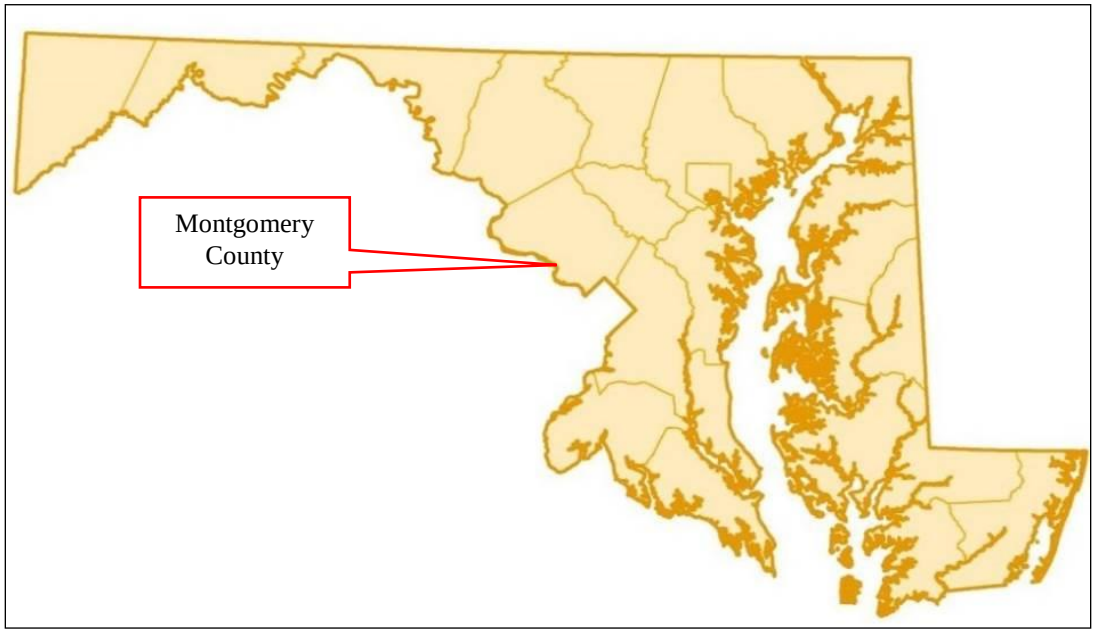

Figure 1: Location of Montgomery County, Maryland.

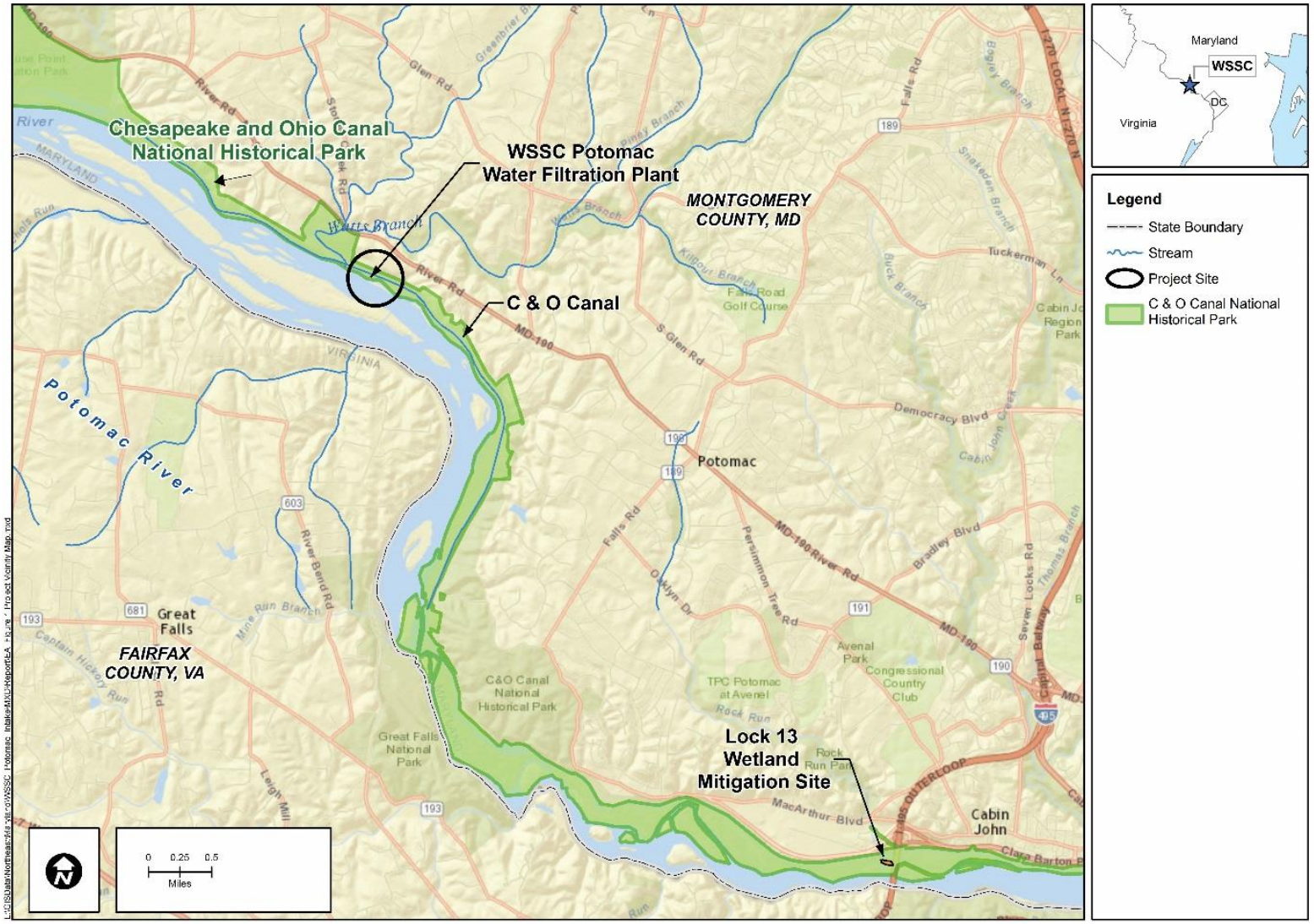

Figure 2: Location of the Project Vicinity.

This page intentionally left blank

SECTION 106 LEGAL AND REGULATORY CONTEXT

The Potomac submerged channel intake project is subject to compliance with the NHPA (16 USC 470 et seq.) and its implementing regulations (36 CFR 800). Specifically, Section 106 of the NHPA requires that the responsible Federal agency consider the effects of its actions on historic properties, which are properties listed in or determined eligible for listing in the NRHP, and provide the Federal Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking.

Per Section 106 requirements, the lead Federal agency, in consultation with the SHPO, develops the APE, identifies historic properties (i.e., NRHP-listed and NRHP-eligible) in the APE, and makes determinations of the proposed project's effect on historic properties in the APE. Section 106 regulations require that the lead Federal agency consult with the SHPO and identified parties with an interest in historic properties during planning and development of the proposed project. The ACHP may participate in the consultation or may leave such involvement to the SHPO and other consulting parties. ACHP, if participating, and SHPO are provided an opportunity to comment on the proposed project and its effects on historic properties. They participate in development of a Memorandum of Agreement (MOA) or Programmatic Agreement (PA) to avoid, minimize, or mitigate adverse effects, as applicable. Stipulations in a MOA or a PA must be implemented.

Area of Potential Effects

The APE is defined in the Section 106 regulations of the NHPA (36 CFR 800.16(d)) as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

Identification of Historic Properties

Historic properties are listed in or determined eligible for listing in the NRHP by applying the NRHP Criteria for Evaluation (36 CFR Part 63) to evaluate a property's historic significance. The Criteria state that the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or

B. are associated with the lives of persons significant in our past; or

C. embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a

significant and distinguishable entity whose components may lack individual distinction; or

D. have yielded, or may be likely to yield, information important in prehistory or history.

Built resources are typically evaluated under Criteria A, B, and C; Criterion D applies primarily to archeological resources.

If a property is determined to possess historic significance, its integrity is evaluated using the following seven aspects of integrity to determine if it conveys historic significance: location, design, setting, materials, workmanship, feeling, and association. If a property is determined to possess historic significance under one or more criteria and retains integrity to convey its significance, the property is determined to be eligible for listing in the NRHP.

Assessment of Effects

Effects assessments are based on the criteria of adverse effect as defined in 36 CFR 800.5 "Assessment of adverse effects." According to this portion of the regulations, the criteria of adverse effect are defined as follows:

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Examples of adverse effects are identified in 36 CFR 800.5 and include, but are not limited to, the following:

- Physical destruction of or damage to all or part of the property
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR 68) and applicable guidelines
- Removal of the property from its historic location
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features

- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

NRHP bulletins do not address assessments of effects, as the Keeper of the NRHP only has authority to determine eligibility and does not participate in evaluating effects; effects evaluations are addressed as part of the Section 106 process. However, crucial information on integrity assessments (used for eligibility determinations) regarding what each aspect of integrity entails and how each aspect relates to the select NRHP criteria for eligibility is included in NRHP guidelines. As described above, retention of relevant aspects of integrity is critical to a property's significance under the NRHP Criteria for Evaluation. The National Register Bulletin *How to Apply the National Register Criteria for Evaluation* (NPS 1997) identifies the aspects of integrity and describes their relevance to the NRHP Criteria for Evaluation. The seven aspects of integrity are described in the bulletin as follows:

> **Location** is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.
>
> **Design** is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials. A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces; pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape.
>
> Design can also apply to districts, whether they are important primarily for historic association, architectural value, information potential, or a combination thereof. For districts significant primarily for historic association or architectural value, design concerns more than just the individual buildings or structures located within the boundaries. It also applies to the way in which buildings, sites, or structures are related.

Setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the *character* of the place in which the property played its historical role. It involves *how*, not just where, the property is situated and its relationship to surrounding features and open space. Setting often reflects the basic physical conditions under which a property was built and the functions it was intended to serve. In addition, the way in which a property is positioned in its environment can reflect the designer's concept of nature and aesthetic preferences.

The physical features that constitute the setting of a historic property can be either natural or manmade, including such elements as: topographic features (a gorge or the crest of a hill); vegetation; simple manmade features (paths or fences); and relationships between buildings and other features or open space. These features and their relationships should be examined not only within the exact boundaries of the property, but also between the property and its *surroundings*. This is particularly important for districts.

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of materials reveal the preferences of those who created the property and indicate the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place. A property must retain the key exterior materials dating from the period of its historic significance. If the property has been rehabilitated, the historic materials and significant features must have been preserved.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site. Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques. Workmanship is important because it can furnish evidence of the technology of a craft, illustrate the aesthetic principles of a historic or prehistoric period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles.

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character.

Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where

> the event or activity occurred and is intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property's historic character.

According to guidance found in *How to Apply the National Register Criteria for Evaluation*, different aspects of integrity may be more or less relevant depending on why a specific historic property was listed in or determined eligible for listing in the NRHP. For example, a property that is significant for its historic association (Criteria A or B) is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). A property determined eligible under Criteria A or B ideally might retain some features of all aspects of integrity, although aspects such as design and workmanship might not be as important.

A property important for illustrating a particular architectural style or construction technique (Criterion C) must retain most of the physical features that constitute that style or technique. A property that has lost some historic materials or details can be eligible if it retains the majority of features that illustrate its type and/or style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its type or style. A property significant under Criterion C must retain those physical features that characterize the type, period, or method of construction that the property represents. Retention of design, workmanship, and materials will usually be more important than location, setting, feeling, and association. Location and setting will be important for those properties whose design is a reflection of their immediate environment (such as designed landscapes).

For a historic district to retain integrity, the majority of the components that make up the district's historic character must possess integrity even if they are individually undistinguished. In addition, the relationships among the district's components must be substantially unchanged since the period of significance.

In some cases, select aspects of integrity are currently and substantially compromised by prior undertakings not related to the current project. These changes may have been made prior to determinations of eligibility or since these determinations were made.

Prior documentation for historic properties was reviewed to determine under which Criteria for Evaluation each property was deemed eligible for the NRHP, which historic characteristics and features of a property qualified it for eligibility, and which areas of integrity were most relevant to the eligibility determination and to what degree the property retains them. This information provides useful insight when applying the criteria for adverse effects and making accurate effects determinations.

Because of common misunderstandings regarding the application of the criteria of adverse effects to historic properties, it is necessary to clearly state that just because project components may be visible from a historic property, this does not necessarily constitute an adverse effect. Factors considered include proximity of project components, and ancillary

features to the historic property; the significance of viewsheds; integrity and significance of subsurface deposits; and the overall importance of integrity of setting to the historic property's determination of eligibility.

During the current assessment of effects, information available for each historic property was reviewed to determine the significance and integrity of each property. Using the same information, a determination was made regarding which aspects of integrity were most critical to a historic property's NRHP eligibility.

To determine project effects each historic property was assessed and the project plans reviewed relative to the resource. Following guidelines set forth in 36 CFR 800 and supported by information on integrity set forth in the National Register Bulletin *How to Apply the National Register Criteria for Evaluation*, the following findings were used to assess project effects to historic properties:

- ***No Effect:*** Per 36 CFR 800.4(d)(1), an undertaking may have no effect to historic properties present in the APE, and a finding of "No Historic Properties Affected" may be determined for an undertaking. This finding indicates that an undertaking would not alter any aspects of integrity for any historic properties. This provision has been used as the basis for making a finding of "No Effect" for individual historic properties within the APE.

- ***No Adverse Effect:*** Per 36 CFR 800.5(b), an undertaking may be determined to have "No Adverse Effect" to historic properties if the undertaking's effects do not meet the criteria of adverse effect as described above. If project implementation would alter a specific aspect of integrity for a historic property but the effect would not alter a characteristic that qualifies that historic property for inclusion in the NRHP in a manner that diminishes the significant aspect of integrity, then the finding for that aspect of integrity is "No Adverse Effect."

- ***Adverse Effect:*** An adverse effect is determined if the undertaking would alter a characteristic that qualifies that contributing resource for inclusion in the NRHP in a manner that diminishes the significant aspect(s) of integrity.

Avoidance Alternatives, Planning To Minimize Effects, and Mitigation

Per 36 CFR 800.6, a finding of adverse effect to historic properties requires that efforts to resolve such effects by developing and evaluating alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects must be undertaken.

Throughout the course of project planning, significant efforts have been made to avoid and/or minimize adverse effects to historic properties; to date, these efforts have included redesign of access and construction roads, the boat ramp, and parking area. These efforts have resulted in a minimization of the area of the site impacted.

PROJECT DESCRIPTION

WSSC requests NPS permission to construct a new submerged channel intake in the Potomac River, as well as an onshore intake shaft, a boat ramp, a parking area, and a permanent access road. Construction would include temporary cofferdams in the Potomac River for the submerged intake and boat ramp and a temporary construction access road including embankments across the Potomac River and C&O Canal.

Geographic Area

The project area is approximately 3.7 miles upstream from the Great Falls of the Potomac River, the boundary between Piedmont and Coastal Plain Physiographic Provinces referred to as the fall zone. The Piedmont Province stretches west from the fall zone near I-95 to Catoctin Mountain, the eastern edge of the Blue Ridge; however, the presence of Triassic-age sedimentary rocks distinguishes the Culpeper Triassic Basin from the Piedmont of eastern Montgomery County. The Triassic sediments formed conglomerate, sandstone, mudstone, and shale by lithification (i.e., conversion into rock; Dietrich 1990:173–174; Dietrich and Skinner 1979:176; Wagner 2005:4–5).

Many islands are present in the river along this reach and serve to store some of the sediment transported by the river; the presence of the islands gives the channel a somewhat braided form. The downstream end of a 3.7 mile long mid-channel island, Watkins Island, lies 820.2 feet offshore, opposite the project area. The upstream end of a small, unnamed island lies less than 98.4 feet offshore from the project area.

In the project vicinity, the Potomac River channel narrows to 3.1 to 3.7 miles. The narrow channel results from resistant bedrock that rises 59.1 to 65.6 feet above an alluvial zone roughly 328.1 to 393.7 feet wide in the project vicinity. The Potomac River flows east and south to join the Chesapeake Bay near Point Lookout, Maryland.

Watts Branch, a large third-order stream, flows into the Potomac River on the Maryland bank 1,640.4 feet northwest of (upstream from) the project site; no active tributaries are located within or near the project area. Cheek et al. (2007) noted that possible evidence of a former stream channel was observed in the wall of a backhoe trench. A more deeply incised hollow in the valley wall 3,280.8 feet northwest of the site almost certainly marks a former course of the lowest reach of Watts Branch but appears to have been abandoned prior to the Holocene and probably dates to the Pleistocene epoch.

Overview of the Alternatives

There are four alternatives evaluated in the EA: the no-action alternative (alternative 1) and three action alternatives (alternatives 2–4). Under all action alternatives, the new intake would be constructed southwest of the existing intake facility using the drill and blast method. A boat ramp, parking area, and permanent access road would be constructed to

provide access to the intake for maintenance. Cofferdams would be needed in the river for construction of the intake shaft and the boat ramp.

Alternative 2 would include tunneling for installation of all new piping (conduits) (Figure 3). Alternative 3 is similar to alternative 2; however, the installation of new conduits would use both open-trench construction (between the intake and junction vault) and tunneling construction (between the junction vault and the existing intake conduits) (Figure 4). The tunneling construction methods under alternative 4 are similar to those described under alternative 2; however, the onshore shaft/junction vault would be placed east of the existing intake facility and the tunneled conduits would run from the new intake northeast to the junction vault (Figure 5).

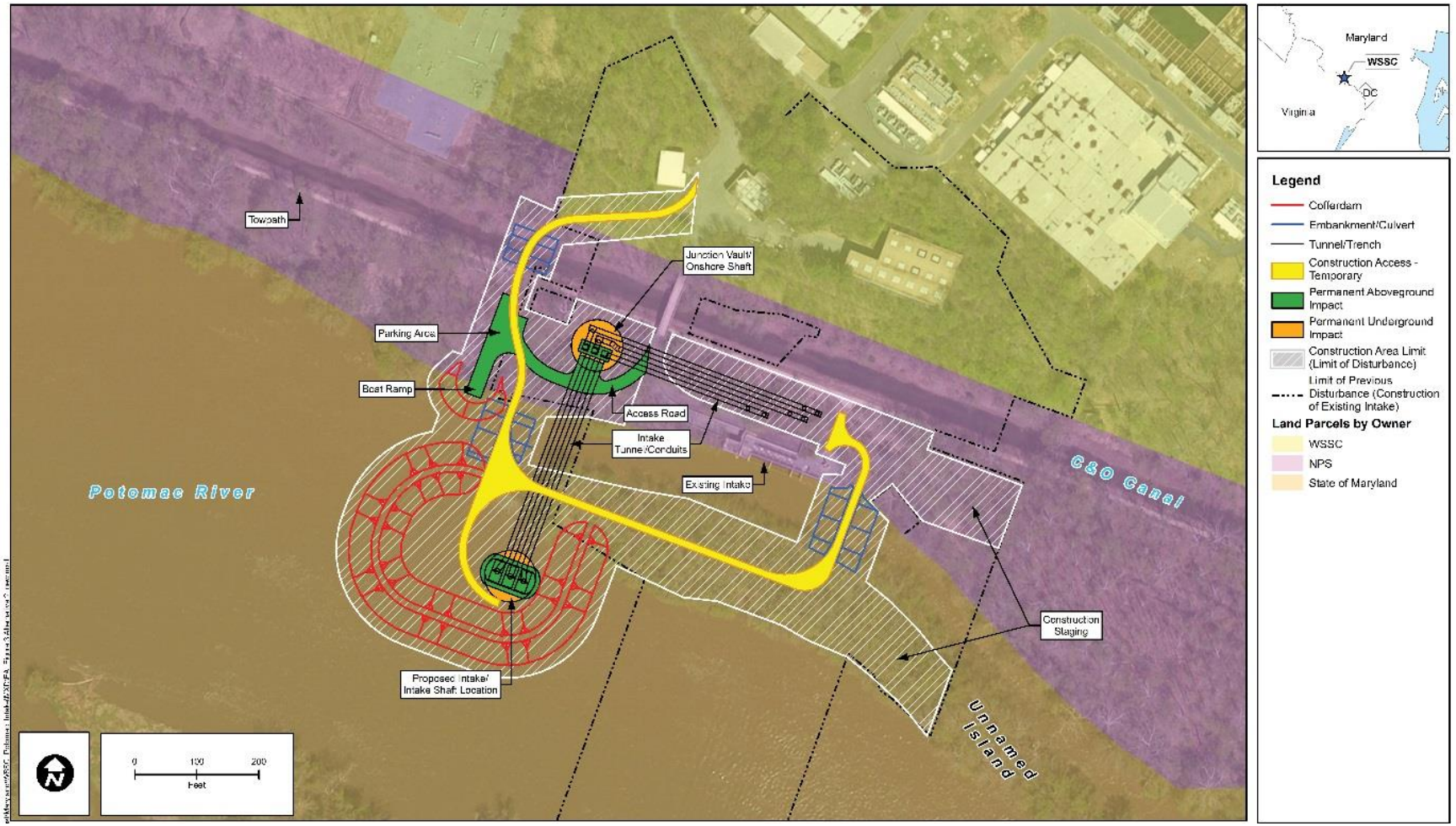

Figure 3: Alternative 2, Tunneling to Onshore Shaft West of Existing Intake.

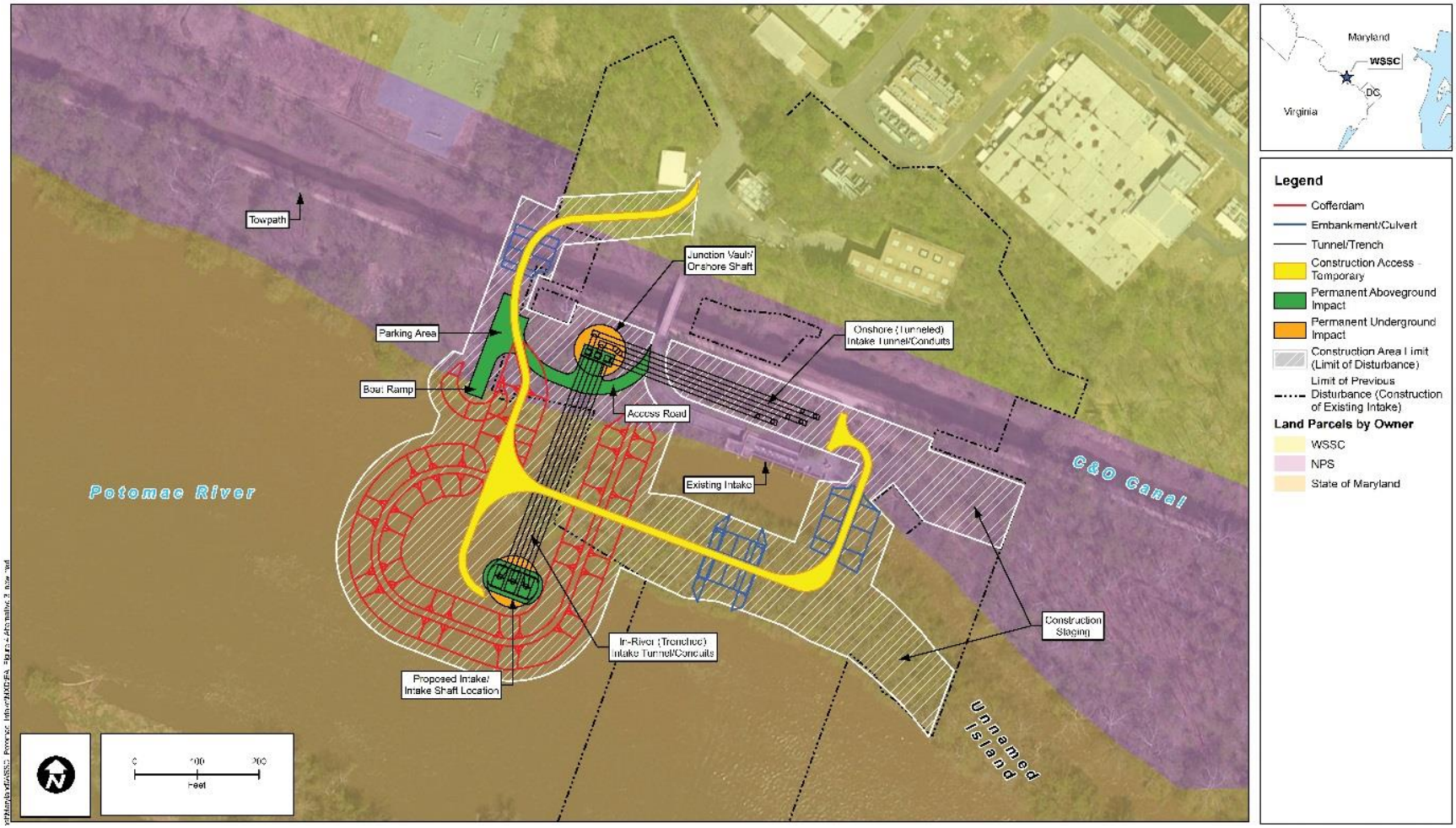

Figure 4: Alternative 3, Trenching/Tunneling to Onshore Shaft West of Existing Intake.

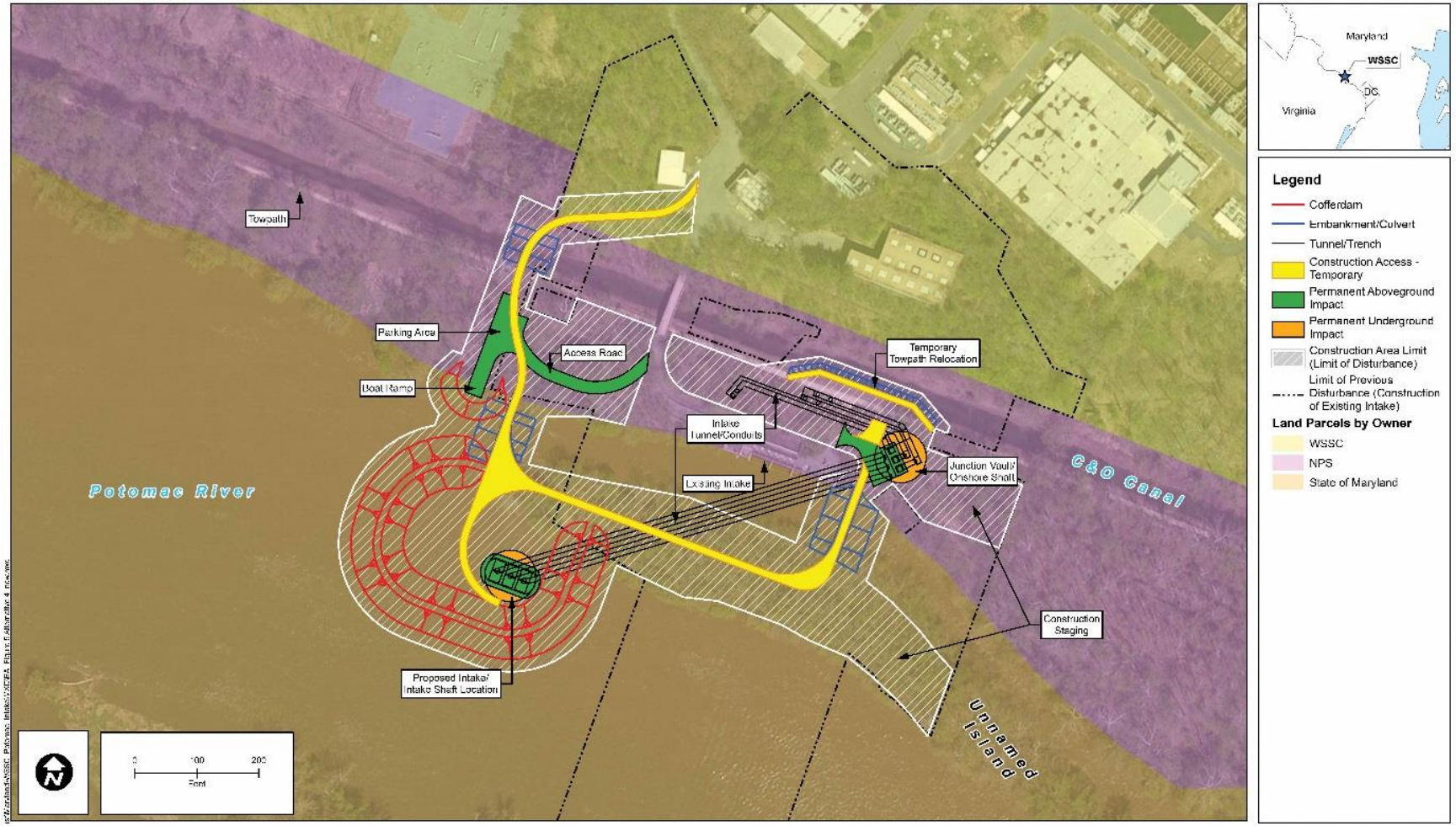

Figure 5: Alternative 4, Tunneling to Onshore Shaft East of Existing Intake.

This page intentionally left blank

SUMMARY OF HISTORIC PROPERTIES WITHIN THE POTOMAC SUBMERGED CHANNEL INTAKE PROJECT AREA

The Potomac submerged channel intake cultural resources evaluations included efforts to identify previously identified and/or evaluated properties within the APE and field investigations to identify any previously unidentified resources more than 50 years of age within the corridor. In general, properties less than 50 years of age are presumed to be ineligible for the NRHP, unless they possess exceptional importance. Efforts were designed to identify and evaluate all resources within the APE that meet the basic NRHP age threshold.

Previously Identified Resources

Historic buildings, structures, objects and districts in the project area and surrounding area have been documented as part of the park's NRHP nomination and management. Because comprehensive surveys for above-ground resources have been completed within the project area, no additional survey work was conducted in association with this project. In addition, two associated contributing elements to this historic district are also located in the APE. They are the Mile 17-18 Canal Prism and the Mile 17-18 Canal Towpath (Table 1). These two resources are not individually eligible for the NRHP.

Table 1: Previously Identified Eligible/Listed/Contributing Historic Properties Within the Potomac Submerged Channel Intake Project Area.

Inventory #	Name	Eligibility/ Criteria	Comments
M:12-46	C&O Canal	Listed	Listed August, 1979
Contributing Element to M:12-46	Mile 17–18, Canal Prism	Contributing Element to Listed Resource	Not Individually Eligible
Contributing Element to M:12-46	Mile 17–18 Canal Towpath	Contributing Element to Listed Resource	Not Individually Eligible

Newly Identified Historic Properties

Cultural resources investigations were conducted within the C&O Canal NHP in 2005 by the Louis Berger Group, Inc. on behalf of the NPS as part of a Systemwide Archeological Inventory Program. While this study was conducted for the NPS and not completed in association with the Potomac submerged channel intake project, its results are directly relevant to this project. In 2007, John Milner and Associates completed a Phase I archeological study of the WSSC Potomac WFP area. One site, 18MO633, was identified as part of this study. Starting in 2014, Gannett Flemming, in tandem with Dovetail Cultural

Resource Group (Dovetail), completed an addendum Phase I survey, which identified site 18MO719, and Phase II evaluations of the two identified sites.

Reports associated with studies completed along this corridor include (in chronological order):

Cohongorooto: The Potomac Above the Falls; Archeological Identification and Evaluation Study of C&O Canal National Historical Park, Rock Creek to Sandy Hook (Mile Markers 0 to 59), Volume II. 2005. The Louis Berger Group, Inc., Washington, D.C. Prepared for National Park Service, National Capital Region.

Phase I Archeology Survey. Potomac River Submerged Intake Tunneling/Trenching Alternatives and Parking Area. 2007. John Milner Associates, Inc., Alexandria, Virginia.

Phase II Archeological Evaluation of Sites 18MO633 and 18MO719, C&O Canal National Historical Park, Montgomery County, Maryland. 2015. Dovetail Cultural Resource Group, Fredericksburg, Virginia.

The archeological studies associated with the WSSC's Potomac WFP have identified two archeological sites within the defined archeological APE of the project area that have been determined eligible for listing on the NRHP (Table 2). Both sites are multicomponent, stratified archeological sites.

Table 2: Eligible Archeological Sites Recorded Within the Potomac Submerged Channel Intake Project APE.

Inventory #	Name	Eligibility	Comments
18MO633	n/a	Eligible	Site recorded in association with the current project.
18MO716	n/a	Eligible	Site recorded in association with the current project as part of addendum survey of construction easement area.

Sites 18MO633 and 18MO719 were evaluated for listing on the NRHP under Criteria A through D. There is no known association between the site 18MO633 and any significant historical events or pattern of events; the upper deposits of site 18MO179, in contrast, contain artifacts deposited during the construction and maintenance of the C&O Canal (Criterion A). There is no direct, known association between significant persons and the two sites (Criterion B), nor do the deposits illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). Criterion D, however, applies to both sites 18MO633 and 18MO719. Under Criterion D, resources that "have yielded or may be likely to yield, information important in prehistory or history" are considered significant (NPS 1995:2).

The stratigraphic record at site 18MO633 identifies it as a persistent place where people returned over millennia. Persistent places represent settings repeatedly occupied for varied purposes at multiple time scales over the long-term (Schlanger 1992:92−110). The repeated

use of a landform over long periods of time often results in a palimpsest of artifacts manufactured and used over long periods of time. At site 18MO633, like site 44FX3226 across the river and a number of sites upriver (e.g., 18FR802), the depositional context resulted in stratigraphically discrete occupations ranging in age from the Terminal Archaic or Early Woodland through the Late Woodland, and possibly, Contact Periods (Fiedel et al. 2005; Inashima 2008). Fiedel et al. (2005:172) note that "stratified multi-component sites are extremely rare in the Middle Atlantic region" (cf also Gardner et al. 2000). The prehistoric regional importance of the setting and site follows from the identification of the locale as a persistent place. Site 18MO633, therefore, preserves information important for understanding the Native American history of the Potomac Valley and the Middle Atlantic Region over millennia. Based on the potential contribution of site 18MO633 to the study of regional social evolution, site 18MO633 is eligible for listing on the NRHP under Criterion D for its significance at the regional level.

The size and setting of site 18MO719 identifies it as a camp or portion of a dispersed settlement, rather than a palisaded village. The presence of probable cultural features implies somewhat longer occupations and more varied activities than apparent at site 18MO633. Similar occupations often occur in settings that are not conducive to the preservation of cultural features. The construction of the C&O Canal and other historic activity has disturbed the upper strata in parts of 18MO719 while actually serving to preserve other parts. Soil cast over during excavation of the canal served to cap and protect areas immediately north of the canal prism.

Although these upper, disturbed backdirt deposits contain artifacts associated with the construction and maintenance of the C&O canal (Criterion A), the complete loss of archeological integrity makes the resources unable to be securely associated with any particular event, activity, or specific time period. The disturbed upper deposits of site 18MO719, therefore, are not eligible for listing on the NRHP under Criteria A or D. The lower, capped strata, in contrast, contained artifacts and features dating to the Late Woodland and, perhaps, Contact eras, and probable cultural features were identified at the surface of the Bwb horizon. Site 18MO719, therefore, potentially contributes to knowledge of the Late Woodland and, perhaps, Contact eras in the Potomac River Valley and the Middle Atlantic Region. Based on the potential contribution of site 18MO719 to the study of the history of Native American occupation of the Potomac River Valley and the larger region, the undisturbed portion of site 18MO719 is eligible for listing on the NRHP under Criterion D for its significance at the regional level.

Historic Properties Summary

During the Phase II archeological survey, two previous archeological sites within the project's APE, 18MO633 and 18MO716 were evaluated for eligibility for listing on the NRHP. Phase II testing at these sites resulted in both being determined eligible for listing on the NRHP under Criteria D, for having or being likely to have information important in history or prehistory.

A total of three previously recorded above-ground resources are located within the project's APE. Of the three, one has been determined to be eligible and is currently listed in the National Register. This is the C&O Canal (M: 12-46), which extends for 184.5 miles from Georgetown to Cumberland, Maryland. The larger canal property was listed in the NRHP in 1979. The other two above-ground resources in the APE are contributing elements to the NRHP-eligible C&O Canal, but are not eligible as individual resources. These include the Mile 17–18, Canal Prism and Mile 17–18, Canal Towpath.

As such, there are a total of three eligible or listed historic properties within the Potomac submerged channel intake project APE and two contributing elements to a historic property in the APE: three above-ground resources and two archeological sites. Each of these resources will be described and evaluated for project effects in the next section.

ASSESSMENT OF EFFECTS

Five eligible or contributing resources are located within the Potomac submerged channel intake APE (Table 3 and **Error! Reference source not found.**). For archeological resources, the area of investigation was limited to the project LOD—the footprint where any subsurface disturbances may occur. For above-ground resources, the APE includes both the LOD and the surrounding area where alterations to a historic property's setting and feeling could occur. Due to the nature of the topography and vegetation in this area, the APE is limited and extends for 1.9 miles up and down the park (MM 17.3–17.7) from the proposed intake; approximately halfway between MM 17 and MM 18.

In accordance with 36 CFR 800.5(a), the criteria of adverse effect were applied to the five eligible or contributing resources within the project's APE. The regulations implementing Section 106 of the NHPA define an effect as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligible for the National Register" [36CFR800.16(i)]. The effect is adverse when the alteration of a qualifying characteristic occurs in a "manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" [36CFR800.5(a)]. Each of the five properties is briefly described below followed by an assessment of effects. This section concludes with a summary of an overall project effect on historic properties.

Table 3: Summary of Eligible/Listed/Contributing Properties in the Potomac Submerged Channel Intake APE.

Inventory No.	Property Name	Eligible or Listed/ Criteria	Effect
M: 12-46	Chesapeake and Ohio Canal	Listed/A&C	No Adverse Effect
M: 12-46 Contributing Element	Mile 17–18, Canal Prism	Not Individually Eligible; Canal Listed/A&C	No Adverse Effect
M: 12-46 Contributing Element	Mile 17–18, Canal Towpath	Not Individually Eligible; Canal Listed/A&C	No Adverse Effect
18MO633	n/a	Eligible/D	**Adverse Effect**
18MO719	n/a	Eligible/D	No Adverse Effect

Chesapeake and Ohio Canal and Associated Resources (M: 12-46)

The C&O Canal emerged out of a general national interest in improving transportation and communication during the first part of the nineteenth century (Figure 6). The C&O Canal was envisioned as a parallel trunk line (Meinig 1993). A convention was organized in 1823 to entertain the idea of a canal along the Potomac River that would connect the Chesapeake Bay to the Ohio Valley. In it, the federal government in conjunction with officials from

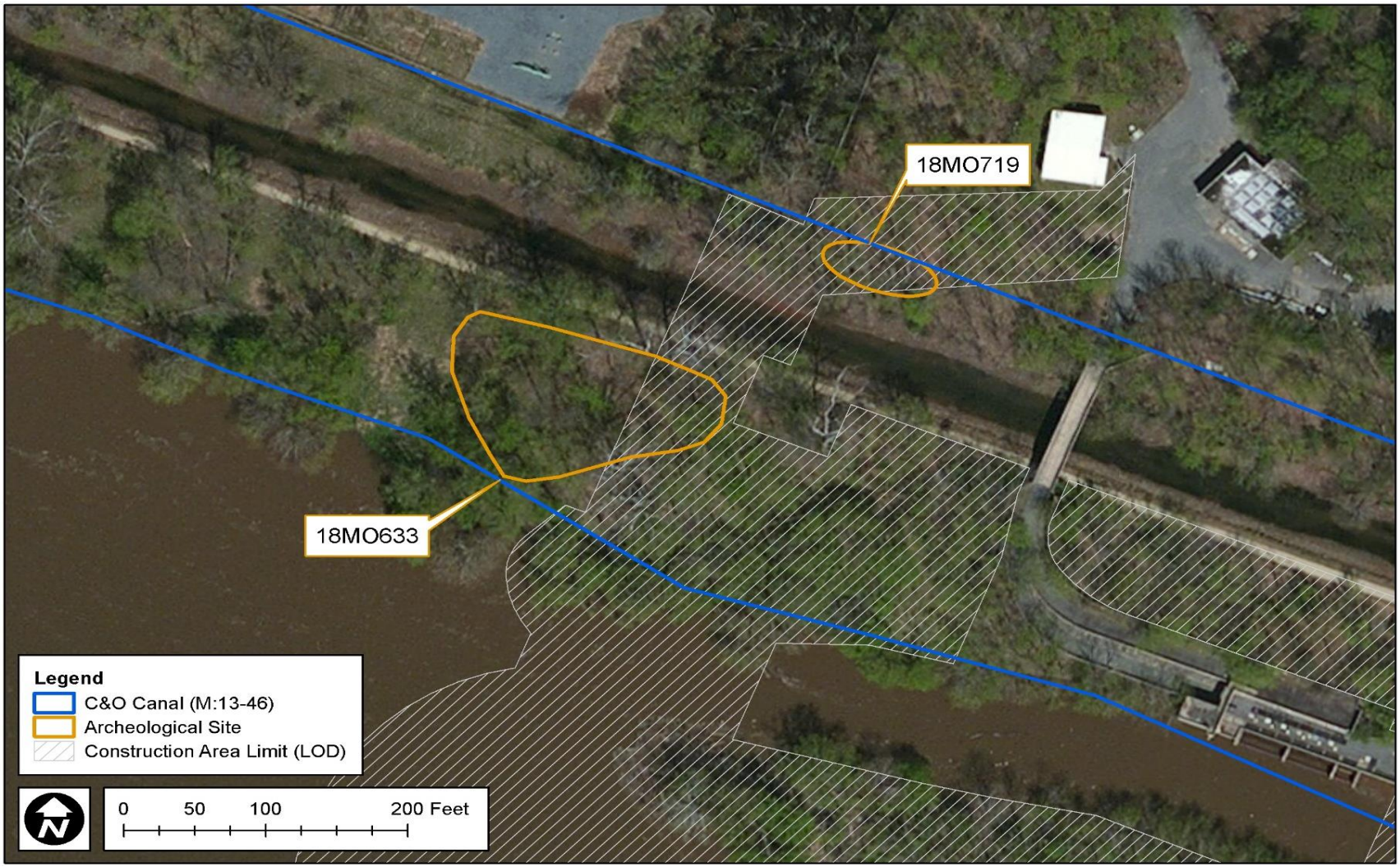

Figure 6: The Potomac Submerged Channel Intake Project Area and Historic Properties Within the APE.

Maryland, Virginia, and Pennsylvania convened to review the possibility. Eventually state support for a canal emerged and the Maryland Legislature incorporated the Chesapeake and Ohio Canal Company in 1824. This was followed a year later by an official charter from the federal government. Early plans were to connect the canal to the Ohio River at Pittsburgh, but Cumberland, Maryland became the western terminus (Mackintosh 1991; Unrau 1974; Van Ness 1983).

Figure 6: Photograph of the C&O Canal, Showing Both the Canal Prism and Towpath, Facing Northwest.

Built on the Maryland side of the Potomac River between 1828 and 1850, the canal reached a total length of 184.3 miles and gained 605 feet in elevation by way of 74 lift locks. Aqueducts carried the canal across major streams, while culverts enabled small tributaries to flow underneath it. Associated features included lock houses, river locks, stop locks, bridges, shops, wharfs, and basins (Gray 2009). When the canal opened in 1850, the railroad had made many of its functions obsolete but the canal provided a better means of shipping heavy freight such as coal, produce, stone, lumber, and cement (Gray 2009; Mackintosh 1991; Van Ness 1983). The canal operated through the nineteenth century, despite competition from the railroad and a yearlong stoppage following a flood in 1889. Flooding in 1924 finally led to its permanent closure (Mackintosh 1991).

The C&O Canal was nominated for listing on the NRHP in March 1979 and listed in August 1979. The nomination identifies three areas in which the canal's historical significance can be summarized. They include: Architecture and Engineering as an excellent example of nineteenth century canal building technology, Commerce and Transportation, for its use as a major commercial artery in the upper Potomac Valley

during the nineteenth century, and for Conservation for the preservation of a large portion of the Maryland bank of the Potomac River that resulted from the NPS acquisition of this resource in 1938.

Alternatives 2 through 4 (see Figure 3 through Figure 5) involve the construction and installation of the temporary embankment for the construction access road that would impact the canal prism and the towpath within the APE. In addition, Alternative 4 includes the temporary relocation of the towpath via an embankment on the north side (left bank) of the canal for construction safety and maintaining access for visitor and park staff use. However, once construction is complete, the embankments would be removed and these sections of the canal prism and the towpath would be restored utilizing the Secretary of the Interior's Standards. In addition, clearing of vegetation and the introduction of permanent features at the site will have an impact on the C&O Canal's general setting and feeling. However, as part of the project, vegetation cleared in this area will be replanted.

While aspects of this project clearly alter portions of the C&O Canal that qualify it for listing in the NRHP, because most of these alterations are temporary in nature they do not diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Two built elements of this project, the boat ramp and the parking lot, will not be temporary. They will "however" be reversible. The parking lot is a surface feature that will have little to no vertical profile. While the vegetative buffer between the parking lot and the canal will be minimal, this is not out of character with the existing development in the area. The boat ramp will be located over 147.6 feet from the edge of the C&O Canal (Figure 7). In addition the boat ramp itself will be set down into the river, lowering its vertical profile. As such, the built elements of the project will not diminish the property's integrity of location, design, materials, workmanship, or association, but will minimally diminish the property's setting and feeling. This project will have **No Adverse Effect** on this historic property under the condition that the area impacted by the construction access road is restored utilizing the Secretary of the Interiors' Standards after completion of the project.

Figure 7: View From the C&O Canal Southwest, Across Site 18MO633, Towards the Potomac.

18MO633

Site 18MO633 lies on a narrow strip of bank between the river and the C&O Canal. Site 18MO633 is situated on a T-1 alluvial terrace. Secondary growth forest with an understory of brush covers the area (Figure 8). The floodplain, immediately adjacent to the river, varies in width and terminates to the south of the site at the base of the riser to the T-1 terrace. The T-1 terrace, where site 18MO633 is located, varies in width from 82 to 98.4 feet and lies approximately 13.1 feet above mean low water in the Potomac River channel. The distal edge of the T-1 terrace abuts the base of the riser to a T-2 alluvial terrace. The C&O Canal was excavated into the proximal portion of the T-2 terrace and the towpath is located on the proximal edge.

Site 18MO633 was evaluated for listing on the NRHP under Criteria A through D. The stratigraphic record at site 18MO633 identifies it as a persistent place where people returned over millennia. Persistent places represent settings repeatedly occupied for varied purposes at multiple time scales over the long-term. The repeated use of a landform over long periods of time often results in a palimpsest of artifacts manufactured and used over long periods of time. At site 18MO633, however, the depositional context resulted in stratigraphically discrete occupations ranging in age from the Terminal Archaic or Early Woodland through the Late Woodland, and possibly, Contact Periods (Figure 9). The regional importance of the setting and site follows from the identification of the locale as a persistent place with stratigraphic integrity. Site 18MO633 preserves

information important for understanding the Native American history of the Potomac Valley and the Middle Atlantic Region over millennia. Based on the potential contribution of site 18MO633 to the study of regional social evolution, site 18MO633 is eligible for listing on the NRHP under Criterion D for its significance at the regional level.

Under the action alternatives, construction associated with the permanent access road, parking area associated with the new boat ramp, and part of the temporary construction access road would disturb intact portions of the eastern quarter of site 18MO633. The western approximately three quarters of the site would be preserved in place. Due to the ground-disturbing activities associated with construction of the roads and parking area within the eastern quarter of the site, this project will alter, directly the characteristics that qualify the property for inclusion in the NRHP in a manner that will diminish the integrity of the property's location, setting and association. The revised project footprint for the boat ramp and parking area did result in avoidance of impacts to the western portion of site 18MO633; however, some impact cannot be avoided to this site. Therefore the project will have an **Adverse Effect** on site 18MO633.

Figure 8: Overview of Site 18MO633 from the C&O Canal Facing Southeast.

Figure 9: From Left: Accokeek Creek Cordmarked (CHOH 59730), Shepard/Potomac Creek Cordmarked, Cord-Wrapped-Stick Decorated (CHOH 5971), Moyaone Plain (CHOH 59865) from Site 18MO633.

18MO719

Site 18MO719, situated northeast of site 18MO633, occupies the T-2 landform (Figure 10). On December 10, 2013, standing water was present on most parts of the T-2 north of the C&O Canal in areas where the surface had not been elevated by the addition of fill. The wider, western end of the T-2 project area was submerged beneath several inches of standing water, part of a much larger area of standing water extending to the north and west. It appears that the berm of backdirt along the north side of the canal impounds surface water which flows down the valley wall a short distance to the north. The presence of the canal and, presumably, a clay canal prism liner may also serve to hydraulically and mechanically dam subsurface groundwater flow north of the canal.

Site 18MO719 was evaluated for listing on the NRHP under Criteria A through D. The size and setting of this site identifies it as a camp or portion of a dispersed settlement, rather than a palisaded village. The presence of probable cultural features implies somewhat longer occupations and more varied activities than apparent at site 18MO633. Similar occupations often occur in settings that are not conducive to the preservation of cultural features. The construction of the C&O Canal and other historic activity has disturbed the upper strata in parts of 18MO719 while actually serving to preserve other parts. Soil cast over during excavation of the canal served to cap and protect areas immediately north of the canal prism.

Figure 10: Overview of Site 18MO719. View From the C&O Canal Looking Northwest.

Although these upper, disturbed backdirt deposits potentially contain artifacts associated with the construction and maintenance of the C&O canal (Criterion A), the complete loss of archeological integrity makes the resources unable to be securely associated with any particular event, activity, or specific time period. The disturbed upper deposits of site 18MO719, therefore, are not eligble for listing on the NRHP under Criteria A or D. The lower, capped strata, in contrast, contained artifacts and features dating to the Late Woodland and, perhaps, Contact eras (Figure 11), and probable cultural features were identified at the surface of the Bwb horizon. Site 18MO719, therefore, potentially contributes to knowledge of the Late Woodland and, perhaps, Contact eras in the Potomac River Valley and the Middle Atlantic Region. Based on the potential contribution of site 18MO719 to the study of the history of Native American occupation of the Potomac River Valley and the larger region, the undisturbed portion of site 18MO719 is eligible for listing on the NRHP under Criterion D for its significance at the regional level.

All of the action alternatives propose construction of a temporary construction access road that would cross archeological site 18MO719. This site contains stratified deposits; however the site's significant data potential and eligibility for the NRHP rests on the deeply buried deposits associated with the Woodland and Contact era. To minimize the traffic load on the archeological deposits, steel plates would be placed across the archeological site at the location of the temporary construction road. Placement of these weight bearing buffers on top of the site would disperse the force of the weight of the construction vehicles and prevent compaction to the deeply buried deposits. In addition,

site preparation, such as tree removal, would be completed without ground disturbance. With this measure, the project will not diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Therefore under the conditions that all vehicular traffic at site 18MO719 is strictly restricted to the temporary construction access road and that steel plates are placed along the this road throughout the entire site boundary, and that all tree removal be performed in a manner that prevents ground disturbance, this project will have **No Adverse Effect** on site 18MO719.

Figure 11: From Left, Potomac Point (CHOH 59989), Moyaone Cordmarked (CHOH 60046), Shell-Tempered Plain (CHOH 60048), From Site 18MO719.

Overall Project Effect

A summary of the resources and effects of the Potomac Submerged Channel Intake project are presented in Table 4. There would be No Adverse Effect on the C&O Canal Mile 17-18 prism, Mile 17-18 towpath, and site 18MO719. However, due to the anticipated impacts on site 18MO633 as proposed in the current design, the project would have an Adverse Effect on this archeological site.

Table 4: Summary of Resources and Effects of the Potomac Submerged Channel Intake Project.

Inventory No.	Property Name	Eligibility/Criteria	106 Effect
M: 12-46	Chesapeake and Ohio Canal	Listed/A&C	No Adverse Effect
M: 12-46 Contributing Element	Mile 17–18, Canal Prism	Not Individually Eligible; Canal Listed/A&C	No Adverse Effect

Inventory No.	Property Name	Eligibility/Criteria	106 Effect
M: 12-46 Contributing Element	Mile 17–18, Canal Towpath	Not Individually Eligible; Canal Listed/A&C	No Adverse Effect
18MO633	n/a	Eligible/D	**Adverse Effect**
18MO719	n/a	Eligible/D	No Adverse Effect

Because the Potomac submerged channel intake project would have an adverse effect on site 18MO633, located within the project APE, the undertaking would have an **Adverse Effect** on historic properties.

REFERENCES

Cheek, Charles D., Tod L. Benedict, William Chadwick, and Bryan Corle
2007 *Phase I Archeological Resources Survey, WSSC Potomac River Submerged Intake Tunneling/Trenching Alternatives and Parking Area, Montgomery County, Maryland*. John Milner Associates, Alexandria, Virginia.

Dietrich, Richard V.
1990 *The Geology of Virginia*. University of Virginia Press, Charlottesville.

Dietrich, Richard V., and Brian J. Skinner
1979 *Rocks and Rock Minerals*. John Wiley & Sons, New York.

Fiedel, Stuart J., John Bedell, and Charles LeeDecker
2005 *Cohongorooto: The Potomac Above the Falls: Archaeological Identification and Evaluation Study of Chesapeake & Ohio National Historical Park, Rock Creek to Sandy Hook (Mile Markers 0 to 59), Volume II.* The Louis Berger Group, Inc., Washington, D.C.

Gardner, William M., Tammy Bryant, and Joan M. Walker
2000 *Phase I and II Excavations in the Potomac River Floodplain between the mouth of Goose Creek and Selden Island, Loudoun County, Virginia*. Thunderbird Archaeological Associates, Inc., Woodstock, Virginia.

Gordon, Robert B., and Patrick M. Malone.
1994 *The Texture of Industry: An Archeological View of the Industrialization of North America*. Oxford University Press, New York.

Gray, Karen.
2009. A Brief History of the Chesapeake and Ohio Canal. Western Maryland's Historical Library. Electronic document, http://www.whilbr/org, accessed April 2010.

Inashima, Paul Y.
2008 *Phase II Archeological Investigation for the Clark's Branch Bridge Crossing Project, Riverbend Park, Fairfax, Virginia*. Fairfax County Park Authority, Cultural Resource Management and Protection Section, Falls Church, Virginia.

Klein, Mike, J. Stiteler, and M.A. Gonzalez
2015 *Phase II Archeological Evaluation of Sites 18MO633 and 18MO719, C&O Canal National Historical Park, Montgomery County, Maryland*. Dovetail Cultural Resource Group, Fredericksburg, Virginia.

Mackintosh, Barry
1991 *C&O Canal, the Making of a Park*. National Park Service, Department of the Interior, Washington, D.C.

Meinig, D.W.
1993. *The Shaping of America, Volume II: Continental America, 1800−1867*. Yale University Press, New Haven, Connecticut.

National Park Service (NPS)
1995 *How to Apply the National Register Criteria for Evaluation*, Edited by Rebecca H. Shrimpton. Washington, D.C.

Phillips, J.
1997 Human Agency, Holocene Sea Level and Floodplain Accretion in Coastal Plain Rivers. *Journal of Coastal Research* 13 (3):854−866.

Sevon, W. D., and D. D. Braun
1997 *Glacial Deposits of Pennsylvania*. Pennsylvania Department of Conservation and Natural Resources, Bureau of Topographic and Geologic Survey. Electronic resource, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_016200.pdf, accessed November 2014.

Schlanger, Sarah H.
1992 Recognizing Persistent Places in Anasazi Settlement Systems. In *Space, Time, and Archeological Landscapes*, edited by Jacqueline Rossignol and LuAnn Wandsnider, pp. 91–112. Plenum Press, New York.

Trimble, S.W.,
1974 *Man-induced soil erosion on the southern Piedmont, 1700−1970*. Soil Conservation Society of America, Ankeny, Iowa.

Unrau, Harlan D.
1974 *Historic Structure Report, The Canal Prism Including Towpath With Canal Berm and River Revetments, Historical Data, Chesapeake and Ohio Canal National Historical Park Md-D.C.-W.Va*. U.S. Department of the Interior, National Park Service, Denver Service Center, Denver, Colorado.

Van Ness, James S.
1983 Economic Development, Social and Cultural Changes: 1800-1860. In *Maryland, A History*, edited by Richard Walsh and William Lloyd Fox, pp. 156−238. Archives Division, Hall of Records Commission, Department of General Services, Annapolis, Maryland.

Wagner, Daniel P.
2005 Pedoarcheological Survey of the C&O National Historical Park Between Mile Markers 0 to 59. Appendix A, in *Cohongorooto: The Potomac Above the Falls: Archaeological Identification and Evaluation Study of Chesapeake & Ohio National Historical Park, Rock Creek to Sandy Hook (Mile Markers 0 to 59), Volume II.* The Louis Berger Group, Inc., Washington, D.C.

APPENDIX A: AGENCY CORRESPONDENCE

This page intentionally left blank

DHCD
Maryland Department of Housing
and Community Development

November 9, 2004

Ms. Janet Vine
Acting Chief, Regulatory Branch
Baltimore District
U.S. Army Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203-1715

Re: MHT Review of WSSC Potomac River Submerged Intake Project, Montgomery County, Maryland

Dear Ms. Vine:

In response to a request from EA Engineering, Science, & Technology, the Maryland Historical Trust (MHT) has reviewed the above-referenced undertaking with respect to effects on historic properties in accordance with Section 106 of the National Historic Preservation Act and Article 83B, Sections 5-617 and 5-618 of the Annotated Code of Maryland. We understand that WSSC is in the process of conducting a feasibility study to evaluate the potential effects of a new submerged intake for the Potomac Water Filtration Plant and that the assessment is being prepared in coordination with the Corps of Engineers and the National Park Service.

As noted in the project overview, a portion of the C&O Canal National Historical Park is located between the existing water filtration plant and the proposed submerged intake alternatives, and it is clear that both of the intake alternatives that are currently under consideration would impact (to varying degrees) this National Register listed property. We also understand, however, that portions of the proposed project area may have already experienced a significant amount of grading and other ground-disturbing activities. We would therefore like to request that we be provided with detailed information (including maps and site photographs) regarding the location and extent of this past disturbance as well as more detailed site plans (illustrating the precise location of proposed impact areas, preferably on a USGS quadrangle) of the two intake alternatives and access roads that are under consideration.

Once we have had an opportunity to review these plans and proposed routes, we will be able to provide further recommendations regarding potential impacts to cultural resources. It is most likely that we will be recommending that a Phase I archeological investigation take place in

particular areas prior to construction. Please note that a general surface survey was conducted over much of the project area in 1962 (see MHT report #MO41). This survey, however, was not conducted for the purpose of complying with historic preservation law and does not meet compliance standards. If it is determined that a Phase I investigation is, in fact, necessary prior to construction, then the subsequent survey should be carried out by a qualified professional archeologist and performed in accordance with the *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994) and with *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (1983). Upon our review of the results, additional investigations may be necessary.

We are writing to the Corps, as the responsible federal agency under Section 106 of the National Historic Preservation Act, to request that the Corps determine the extent of federal involvement in this project and continue to coordinate with MHT. Once the Corps has determined the scope of identification efforts needed for this project, in consultation with MHT, it may then provide specific recommendations on the necessary investigations to the project sponsor/permit applicant. We look forward to hearing from you at your earliest opportunity according to 36 CFR 800 and 33 CFR 325, Appendix C, and we also look forward to further consultation with WSSC, EA Engineering, the National Park Service, and the Corps as project planning proceeds. If you have any questions or require further information, please do not hesitate to contact me at 410-514-7638 or henry@dhcd.state.md.us.

Sincerely,

Dixie Henry

Dixie L. Henry
Preservation Officer
Project Review and Compliance

DLH/200403245
cc: George Harrison (COE)
Phil Cwiek (COE)
Bob Cooper (MDE)
Greg Golden (DNR)
Mike Naylor (DNR)
Lynn Wigfield (C&O Canal NHP)
Suzie Boltz (EA Engineering, Science, & Technology)

United States Department of the Interior

NATIONAL PARK SERVICE
C&O Canal National Historical Park
1850 Dual Highway, Suite 100
Hagerstown, Maryland 21740

IN REPLY REFER TO:

D2215(CHOH)

January 10, 2005

Michael Vitagliano, Lead Project Manager
Washington Suburban Sanitary Commission
14501 Sweitzer Lane
Laurel, Maryland 20707-5902

Dear Mr. Vitagliano:

Thank you for forwarding a copy of the project description for the *WSSC Potomac WFP Submerged Channel Intake Feasibility Study, October 2004.* Your cover letter indicated that this document has been distributed to a number of agencies for review.

As indicated on page 3 of the document, WSSC and the National Park Service (NPS) are currently negotiating a land exchange. When the current intake structure was constructed the official land exchange was never completed. Before the NPS can approve any future development, the land exchange or other appropriate instrument must be executed to allow WSSC's current occupancy and use. Subsequent to this, further development may be approved. The National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) reviews must be inclusive of the existing development/exchange and the proposed intake alternatives.

In section 2.2, the description of the park omits that the towpath and the canal are historic/cultural features of the park. The cultural and natural features of the park will need to be fully detailed within the pending Environmental Assessment (EA).

In regards to the two possible locations for the proposed intake structure, we prefer the offshore from Unnamed Island location. This location presents lesser impacts to park property and resources than the Watts Branch location. To trench or tunnel from upstream of Watts Branch to the existing intake structure would disturb areas of the park that have not been previously disturbed.

At this point in time, we do not have a preference for the intake structure. We anticipate that the pros and cons of each structure will be thoroughly outlined within the EA. Any styles/types that are not under consideration within the EA will need to have a justification for their removal from the evaluation list.

Due to impacts to the park's resources, we strongly encourage tunneling under the canal property as the means of installing the water conduits. The open trenching poses safety concerns, interruptions to park operations and visitor services, and potential damage to unknown cultural resources.

We recognize that a component of both the tunneling and trenching methods is installation of permanent access vaults. Again, we are looking at the location of these structures and their potential impacts to the park's resources, aesthetics, and possible interruptions to park operations during future access and maintenance tasks. We strongly support the plans that locate the access vaults off of park property. We will oppose any access vaults between the towpath and the existing intake structure. We may consider a shoreline location that is well away from the park's towpath and canal.

We understand that the proposed project, upon completion, would require a boat launch area for routine maintenance access to the intake. Our first preference is that the towpath be excluded as a means of access to the boat ramp area. Without the use of the towpath, a new roadway, within the forest and between the towpath and river shoreline, would need to be constructed. We will need to look at the extent of permanent impacts caused by the construction of an access road and boat launch area and discuss mitigation measures. Substantial clearing will need to be accomplished to construct the boat ramp facility. It is our understanding that this boat ramp could be used for emergency river access by rescue and law enforcement departments.

Temporary construction impacts to the park will need to be carefully determined. If the existing WSSC bridge cannot be used to access the construction area, we prefer that an earthen dike with culvert pipes be used as a construction access. This type of structure has been used frequently for projects along the canal. A temporary bridge poses resource impacts that are not incurred with an earthen dike. The critical component for any construction crossing is to keep the park open at all times and present a safe environment for our park visitors.

We look forward to the agency scoping meeting in January. Please contact Lynne Wigfield, Compliance Officer, at (301) 745-5802 if you have any questions.

Sincerely,

Kevin D. Brandt
Superintendent

Enclosure

cc:
Elizabeth Cole, Maryland Historical Trust

DHCD
Maryland Department of Housing
and Community Development

June 3, 2005

Ms. Janet Vine
Acting Chief, Regulatory Branch
Baltimore District
U.S. Army Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203-1715

Re: MHT Review of Proposed WSSC Potomac River Submerged Intake Tunneling/Trenching Alternatives and Parking Area, Montgomery County, Maryland

Dear Ms. Vine:

The Maryland Historical Trust (MHT) received a memorandum from EA Engineering on April 27, 2005 regarding the above-referenced project. The correspondence transmitted additional information that we had requested (see November 9, 2004 MHT letter) regarding the limits of disturbance from previous construction activities and the proposed alignments for conduits to the new offshore intake, as well as the proposed locations of a permanent access route, boat ramp, and parking area. We have reviewed this recent submittal in accordance with Section 106 of the National Historic Preservation Act and Article 83B, § 5-617 and 5-618 of the Annotated Code of Maryland and are writing to provide our comments regarding effects on historic properties.

We understand that the proposed undertaking involves the construction of a new submerged intake for the Potomac Water Filtration Plant and that the environmental assessment for this undertaking is being prepared in coordination with the Corps of Engineers and the National Park Service. Following our initial review of the proposed project, MHT staff expressed concern in a November 9, 2004 letter that the construction of the new intake could impact significant cultural resources associated with the portion of the National Register listed C&O Canal National Historical Park that is located between the existing water filtration plant and the proposed intake alternatives. After reviewing the recent submittal of more detailed information regarding the proposed conduit alignments and the extent of past site disturbance, MHT staff have determined that much of the proposed project's Area of Potential Effects has, in fact, been heavily impacted by grading and other ground-disturbing activities and is unlikely to contain significant archeological resources.

DIVISION OF HISTORICAL AND
CULTURAL PROGRAMS

100 Community Place
Crownsville, MD 21032

PHONE 410-514-7600
TOLL FREE 1-800-756-0119
FAX 410-987-4071
TTY/RELAY 711 or 1-800-735-2258
WEB www.mdhousing.org

The proposed locations of the permanent access route, boat ramp, and parking area and the proposed alignment of tunnel alternative TU-5B, however, are all located outside of the limits of disturbance depicted on the recently submitted site plans and may, in fact, contain significant archeological resources that have not yet been identified. For these reasons, MHT would like to recommend that a Phase I archeological survey take place in these particular areas prior to construction. The survey should be carried out by a qualified professional archeologist and performed in accordance with the *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994) and with *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (1983). Upon our review of the results, additional investigations of identified sites may be necessary.

Please note that the National Park Service has expressed a preference in a January 10, 2005 letter that the canal towpath be excluded as a means of access to the proposed boat ramp area. The recently submitted memorandum from EA Engineering indicates, however, that the towpath is still being considered as the most likely route for permanent access. MHT would like to urge the project proponent(s) to consider alternatives to using the canal towpath, including the possibility of building a new roadway within the forested property located between the towpath and the river shoreline. If such alternatives are not feasible, then we will need to be provided with a written justification as to why they are not practicable.

If you have any questions or require further information, please do not hesitate to contact me at 410-514-7638 or henry@dhcd.state.md.us. We look forward to continued consultation as planning for the submerged intake proceeds, and we would like to thank you for providing us with this opportunity to comment.

Sincerely,

Dixie Henry

Dixie L. Henry
Preservation Officer
Project Review and Compliance

DLH/200501381
cc: Suzie Boltz (EA Engineering)
George Harrison (COE)
Phil Cwiek (COE)
Bob Cooper (MDE)
Greg Golden (DNR)
Mike Naylor (DNR)
Lynne Wigfield (NPS, C&O Canal)
Michael Vitagliano (WSSC)

Maryland Department of Planning
Maryland Historical Trust

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor

David R. Craig, Secretary
Wendi W. Peters, Deputy Secretary

October 9, 2015

Mr. Justin Ebersole
Archeological Technician, Division of Resource Management
Chesapeake & Ohio Canal National Historical Park
1850 Dual Highway, Suite 100
Hagerstown, MD 21740

Re: MHT Review of Phase II Archeological Investigations for WSSC Potomac River Submerged Intake – Potomac Water Filtration Plant -- Montgomery County, Maryland

Dear Mr. Ebersole:

The Maryland Historical Trust (MHT) has been provided with a copy of the draft report detailing the results of the Phase II archeological investigations that have been conducted for the above-referenced project. The proposed construction of an intake for the Potomac Water Filtration Plant (which will impact a section of the Chesapeake & Ohio Canal National Historical Park) will require permits from the U.S. Army Corps of Engineers and the Maryland Department of the Environment (MDE) and will also require approvals from the National Park Service (NPS), making the project subject to state and federal historic preservation law. We have therefore reviewed the draft report in accordance with Section 106 of the National Historic Preservation Act and §§ 5A-325 and 5A-326 of the State Finance and Procurement Article and are writing to provide the following comments and recommendations regarding potential effects on historic properties.

The draft Phase II report was prepared by Dovetail Cultural Resource Group on behalf of the Washington Suburban Sanitary Commission (WSSC). The document, *Phase II Archeological Evaluation of Sites 18MO633 and 18MO719, C&O Canal National Historical Park, Montgomery County, Maryland* (Klein et al. 2015) presents the necessary documentation on the goals, methods, results, and recommendations of the Phase II investigations that have been conducted within the project area. The report is well-organized and is consistent with the reporting requirements of the *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994). Please note, however, that the following item should be addressed in the preparation of the final document:

- The final report should indicate the final disposition of the records and artifacts generated by the Phase II investigations.

The Phase II archeological investigations were carried out between June and August of 2014 and consisted of pedestrian survey and the excavation of nine test units at sites 18MO633 and 18MO719 – two sites that were

initially identified during previous Phase I surveys that were conducted in 2007 and 2013. The results of these studies indicate that site **18MO633** contains the remains of a prehistoric encampment area that people occupied repeatedly over millennia. The site does, in fact, exhibit stratigraphically discrete occupations ranging in age from the Early Woodland through the Late Woodland (and possible Early Contact) Periods. A total of 362 artifacts were recovered from 18MO633 during the Phase II study, including a variety of projectile points and lithic debitage (primarily quartz, quartzite, chert, and rhyolite), ceramics, fire cracked rock, and a hammerstone. As noted in the Phase II report, such intact and stratified multi-component sites are rare in the Mid-Atlantic region and have the potential to yield significant information relating to the Native American occupation of the Potomac River Valley and the overall region over a period of several thousand years.

Similarly, site **18MO719** contains the remains of a Late Woodland (possibly Contact) period encampment that was likely occupied for longer periods of time and witnessed more varied activities than those apparent at site 18MO633. A total of 690 prehistoric artifacts were recovered from the site, including triangular projectile points, early stage bifaces, ceramics, fire cracked rock, and a hammerstone. While construction of the C&O Canal and other historic activities have clearly impacted the upper strata of a segment of the site, the deposition of soil during the excavation of the canal appears to have capped and protected much of the portion of the site that is located north of the canal. As a result of their findings, Dovetail has recommended that these lower, capped strata contain additional artifacts and cultural features that have the potential to yield significant information relating to our understanding of the Late Woodland Period in the Potomac River Valley.

Following our review of these findings and recommendations, it is our opinion that sites 18MO633 and 18MO719 are indeed eligible for listing in the National Register of Historic Places under *Criterion D* and should be preserved in place. Given the presence of these two National Register-eligible sites within the intake project area, MHT is requesting that we be provided with **current and updated site plans** that illustrate the location of all proposed impact areas (including staging areas) in relation to the boundaries of sites 18MO633 and 18MO719 so that we can fully assess the project's potential impacts on these sites. As these resources are located within the C&O Canal National Historical Park, we are also requesting that we be provided with copies of all correspondence documenting the WSSC's coordination and consultation with the NPS, including all comments/concerns that the NPS may have regarding potential impacts to these cultural resources.

The WSSC will need to continue to coordinate with the NPS and MHT on specific construction plans and on ways to reduce and/or mitigate any adverse effects on sites 18MO633 and 18MO719. If it is determined that site avoidance is not feasible, then the WSSC will need to provide the NPS, MHT and the Corps with documentation detailing the constraints and providing justification as to why one or both of the sites cannot be avoided during construction. If site avoidance is not possible, Phase III data recovery investigations will be considered as a way to mitigate the undertaking's adverse effects on archeological resources. All parties will need to negotiate and execute a Memorandum of Agreement (MOA) that stipulates the agreed-upon mitigation measures.

The cultural resources investigations that have been conducted for the WSSC Potomac River intake project have generated important information regarding resource integrity and significance within the project's APE.

We appreciate the conscientious efforts that have been made to recover this information and to consider the effects that the proposed activities may have on cultural resources. We look forward to continued coordination and to receiving a copy of the final Phase II report, when it becomes available. If you have any questions or require further information, please do not hesitate to contact me at 410-514-7638 or dixie.henry@maryland.gov. Thank you for providing us with this opportunity to comment.

Sincerely,

Dixie L. Henry, Ph.D.
Preservation Officer
Maryland Historical Trust

DLH/201501482
cc: Stephen R. Potter (NPS)
Kathy Anderson (COE)
Steve Harman (COE)
Paula Stonesifer (MDE)
Hira Shrestha (MDE)
Simon Baidoo (WSSC)
Sophia Liskovich (Gannett Fleming)
Mike Carmody (Dovetail)