



FINDING OF NO SIGNIFICANT IMPACT

Broad Creek Wastewater Pumping Station, Conveyance System Augmentation Proposed Force Main Addition

National Capital Parks East, Prince George's County, Maryland

INTRODUCTION

The Washington Suburban Sanitary Commission (WSSC) is proposing the construction of an additional wastewater force main in Fort Washington, Prince George's County, Maryland to augment the existing conveyance system. WSSC operates the Broad Creek Wastewater Pumping Station (WWPS) that services about 31 square miles of the Broad Creek sewer basin. The Broad Creek WWPS is located at 10315 Livingston Road, is surrounded on three sides by the National Park Service (NPS) National Capital Parks – East (NACE) property known as Harmony Hall. Since the proposed alignment of this force main crosses an NPS administered property, an easement would need to be issued. Harmony Hall, originally acquired by the NPS to complete the Maryland segment of the George Washington Memorial Parkway, is a historic site owned and maintained by NACE to protect the scenic eastern shore of the Potomac River opposite the George Washington Memorial Parkway. The site contains portions of the village of Aire, later called Silesia, one of the oldest settlements in Prince George's County, Maryland. The 65-acre property includes Harmony Hall Mansion (ca. 1760s), the ruins of Want Water, remnants of one of the earliest constructed canals in English-speaking America, and both historic and prehistoric archeological sites. The site is adjacent to the Broad Creek inlet, an embayment of the Potomac River and near the mouth of Broad Creek. The Harmony Hall mansion and Want Water ruins are currently closed to the public. A site development concept plan is needed to determine the future use of the structure and grounds.

During extreme wet weather events the existing Broad Creek WWPS is susceptible to sanitary sewer overflows (SSOs) as a result of insufficient conveyance capacity, resulting in the release of untreated sanitary wastewater into Broad Creek and the Potomac River. The Broad Creek WWPS has a pumping capacity of 38.3 million gallons per day, as well as a single 42-inch diameter force main/gravity/ pressure sewer line that conveys effluent to the Piscataway Creek Wastewater Treatment Plant (WWTP). The current pumping station and conveyance line capacity is not sufficient to prevent SSOs under extreme wet weather conditions, which occur on average one to two times per year. In addition, the current Broad Creek WWPS conveyance system to the Piscataway Creek WWTP lacks redundancy, so the system cannot be shut down for inspections or maintenance. Due to the SSOs, legal action was brought against WSSC by the US Environmental Protection Agency and other parties. This resulted in a 2005 court-ordered Consent Decree that mandates a minimum design capacity of 55.0 million gallons per day for the Broad Creek WWPS, calculated to eliminate SSO occurrences. The WWTP will be able to handle the extra flow received from the new sewer line.

The purpose of the proposed Broad Creek WWPS Conveyance System Augmentation project is to provide adequate capacity (55.0 million gallons per day) to convey peak flows from the Broad Creek WWPS to the Piscataway Creek WWTP. This conveyance system augmentation, in conjunction with

separate but related pumping station improvements, would fulfill the requirements of the Consent Decree by eliminating SSOs. It would also provide redundancy in the conveyance system, facilitating inspections and maintenance.

The NPS and WSSC completed an Environmental Assessment (EA) that provides an analysis of the environmental consequences of the alternatives considered to augment the Broad Creek WWPS conveyance system. The EA was prepared in accordance with NEPA, its implementing regulations by the Council on Environmental Quality (CEQ) (40 CFR 1500-1508), and NPS Director's Order 12 (DO#12) *Conservation Planning, Environmental Impact Analysis and Decision-Making*, and the accompanying DO#12 Handbook. Since the publication of the EA, subsequent discussions have occurred which have changed the legal mechanism that would allow the work to occur within Harmony Hall. The EA stated that a Right-of-Way permit would be granted to allow this work to progress. It has been decided that an easement, for WSSC to access the pumping station and construct the new line, would be the best way to move forward. In return, WSSC would transfer properties along the BW Parkway to the NPS. This in no way changes the design, alignment, or physical impacts of this proposal, nor does it change the impact analysis provided for in the EA. The corrections to the EA are documented in the errata (see attachment C).

SELECTED ALTERNATIVE

Based on the analysis presented in the EA, the alternative selected is Alternative 5A1-Modified. Alternative 5A1-modified would require an easement from the NPS to construct a pit to allow a microtunnel boring machine insertion/removal and a permanent access vault. Alignment 5A1-modified would involve an easement to the permanent access vault as well as the underground tunnel alignment. The expected life cycle of the new 48-inch diameter augmentation line is 100 years (design life). A twelve foot buffer around the 6-foot by 8-foot concrete pad is assumed to be kept in low-growing vegetation (mowed occasionally) in perpetuity, but otherwise the currently forested portion of the construction area would be allowed/encouraged to return to its present forest condition over time. Future maintenance would occur infrequently. In case of an emergency, WSSC will have to contact the NPS and additional compliance would most likely be needed. Most commonly, maintenance would occur from an access point at the subsurface vault, proposed to be located approximately 60 feet south of the Broad Creek WWPS compound on NPS Harmony Hall property for Alternative 5A1-modified. Maintenance would entail foot traffic and possibly light equipment traversing the 60-foot length of the current facility, via an access easement. Anything more than minor maintenance operations with no impacts to NPS lands will require additional consultation and compliance with NPS. The attached map shows the proposed route/alignment of the tunnel, and the access road to the construction site.

The selected alternative will include:

- 1) Upgrades to pumping station pumps (to handle 55 million gallons per day, with one reserve pump)
- 2) Repairs of sanitary sewer pipe and manhole leaks (reduction in groundwater infiltration and stormwater inflow into the sanitary sewer, which would eliminate approximately 1.5 million gallons per day that currently flow into the Broad Creek WWPS)
- 3) A new 48-inch diameter force main sewer pipe parallel to the existing 42-inch diameter force main pipe (on a separate alignment, just to the south), at depths generally greater than 20 feet below the surface, installed using microtunneling construction techniques following a diagonal alignment across Harmony Hall between the Broad Creek WWPS and the Harmony Hall Regional Center (just south of the NPS Harmony Hall property; then via force main / gravity and pressure sewer lines (outside of NPS property) for about 3.5 miles to Piscataway Creek Wastewater Treatment Plant

OTHER ALTERNATIVES CONSIDERED

During the course of internal scoping and preliminary engineering, WSSC and the NPS considered several alternatives. However, those alternatives were deemed insufficient to meet the project's purpose and need, either individually or in various combinations, and were not carried forward for detailed analysis in the EA. Some of the alternative techniques and technologies are currently being employed by WSSC and will continue to be employed regardless of the selected alternative, but, they are not stand-alone solutions would comply with the Consent Decree.

Alternative 5A1 – New Force Main Parallel to Access Drive and Livingston Road: This first part of this alternative would go north, along the existing WSSC service road, to the intersection of the service road and Livingston Road. The driveway would need to be maintained for access. There are existing sewer, underground electric, and water lines in this corridor, as well as overhead electric lines. Construction along the south side of the driveway would require an approximately 30-foot wide clearing from the pump station to Livingston Road (and from the driveway along the east side of the pump station site to the existing discharge piping at the south side of the station – the same as the preferred alternative). This would require a new ROW permit from NPS and additional impacts to the Harmony Hall property and would result in an increase of 10,000 square feet of wetlands impacts and 2,500 square feet of wetland buffer impacts. Also, there would be additional clearing of trees on NPS property and all displaced utilities would have to be relocated.

The second part of this alternative would include construction of the new sewer line from the Livingston Road / WSSC access road intersection, to the Regional Center. There are two options for tunneling along Livingston Road. One option for the Livingston Tunnel would be a straight line from the WSSC driveway and Livingston Road intersection (there would be a bore pit located there) to the Regional Center (going underneath nine residential properties), with a pit at the end, by the Regional Center. There would not be a need for an intermediate access pit (a bore pit half-way) for this alternative, since it is a straight line. As far as being under existing utilities, the only area of concern would be just north of the Regional Center where the tunnel crosses under Livingston Road. WSSC would need to evaluate the depth of the existing water, sewer, and gas mains.

Because this option requires tunneling under several residential properties, WSSC looked at a second option, which would break the tunnel into two segments with the intermediate shaft on NPS property near the old Harmony Hall gate. The tunnel would also require one bore pit at the corner of the pump station driveway and Livingston Road and a second pit on the Harmony Hall Regional Center site (common to all three alternatives).

The straight-line tunnel alternative would require easements from the nine private properties. On four of the parcels, the tunnel easement impacts a significant portion of the frontage of the residential sites. The tunnel would pass within 30 feet of one of the residences. Impacts for the 2-segment tunnel, on NPS property, include additional clearing of trees and other vegetation on NPS property to support construction of pits at multiple points along Livingston Rd. This type of tunneling is required at greater depths compared to the preferred alternative, due to topography. All of these challenges would increase the cost of construction substantially for WSSC.

The second option would be to open cut a tunnel along Livingston Road, and require at least a 30-foot wide clearing along Livingston Road (onto NPS property), and probably greater where the pipe depth exceeds 25'. This would be done behind the existing overhead power pole line.

The majority of buffering trees along Livingston Road would be removed, including trees in a 30-foot to 50-foot section between Harmony Hall and the WSSC service road. During construction, there would be impacts to local traffic. These impacts could be limited by installing the pipe from the shoulder and adjacent property and not within the travel lane of the access drive or of Livingston Road. However, some brief interruptions to traffic are possible. Horizontal drilling (known as jack-and-bore) would require frequent construction pits along Livingston Road due to limitations on drilling distances imposed by the equipment, as well as the turn at the entrance driveway. Additionally, it was discovered that

multiple buried utilities along Livingston Road might have contributed to requirements for additional clearing of roadside trees for relocation of those utilities.

This alternative was dismissed due to increased impacts to park land, including additional clearing of trees, impacts to the scenic resources along a historic section of Livingston Road, engineering challenges (construction pits and 90 degree turn at the entrance to the driveway), multiple buried utilities, adverse effect with regards to section 106, substantially increased cost, and opposition from the county and historic district commission.

Other alternatives, using a broad range of alternative technologies and force main alignments, include the following:

- No Action Alternative – No Action
- Alternative 1 – Reduction of Rainfall Dependent Infiltration and Inflow
- Alternative 2A – Storage of Excess Sanitary Sewer Inflow Volume near Broad Creek WWPS
- Alternative 2B – Storage of Excess Sanitary Sewer Flow Volume, Elsewhere in the Sewer Basin
- Alternative 3 – In-line Storage of Sanitary Sewer Flow Volume
- Alternative 4 – Upgrade of Pumping Station
- Alternative 5B1 – New Force Main that Follows the Existing Force Main
- Alternative 5C1 – New Force Main Parallel to Access Drive and Livingston Road; Diverging South of Fort Washington Road (Some Distance from Harmony Hall)
- Alternative 5A1-Modified – (see above, selected alternative)

Justification for eliminating the options considered and dismissed from further analysis were based on one or more factors including (1) a lack of technical feasibility, (2) an inability to meet the project's purpose and need, and (3) environmental impacts in excess of the selected alternative.

In addition to the selected alternative, WSSC and the NPS analyzed a no action alternative in the EA. The no action alternative would allow continuation of the existing SSO occurrences. The no action alternative would not comply with the Consent Decree, would not provide redundancy of the force main, and would indirectly have adverse environmental impacts on water quality and wildlife habitat.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS is required to identify the environmentally preferred alternative in its NEPA document for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM4.10) and the CEQ's NEPA's Forty Most Asked Questions, defines the environmentally preferred alternative as the one that "causes the least damage to biological and physical environment". It is the alternative "which best protects, preserves, and enhances historic, cultural and natural resources".

After completing the environmental impact analysis, the selected alternative (Alternative 5A1-Modified) was identified as the environmentally preferred alternative. It is the only alternative that meets the defined project needs, adheres to the Consent Decree, and has more beneficial environmental impacts than adverse environmental impacts. Specifically, the selected alternative will have long-term beneficial impacts on water quality by eliminating SSO discharge to Broad Creek and the Potomac River.

MITIGATION MEASURES

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures will be implemented as part of the selected alternative action. Unless otherwise stated, the responsible party will be WSSC and its construction contractor. Mitigation measures will be put in the permit.

Resource Area	Mitigation Measure
Soils	<ul style="list-style-type: none"> ➤ Best Management Practices (BMPs) including Erosion and Sedimentation Control (E&SC) Measures: <ul style="list-style-type: none"> ○ For trenchless pipeline installation: <ul style="list-style-type: none"> ▪ Minimize bare soil exposure. ▪ Minimize cutting trees whenever possible. ▪ Clearly note vegetation clearing limits on construction documents and mark them in the field to minimize disturbance and alteration of vegetation and wildlife habitat. ▪ Install silt fences on the down gradient side of any spoil stockpiles. ▪ Control runoff and direct water away from stockpiles and earth disturbance. ▪ Dewater using standard sump pits and portable sediment tanks. ▪ Temporarily stabilize disturbed areas within 14 days. ▪ Establish permanent stabilization as soon as practical after completion. ▪ Preservation of all culturally undisturbed soils ➤ Due to the cumulative amount of increased impervious areas (including roofs of new buildings in addition to the 58 square feet of impervious area for the new force main access vault), WSSC will construct an overland flow stormwater infiltration system in a wooded area of Harmony Hall.
Water Quality	<ul style="list-style-type: none"> ➤ Institute construction BMPs, such as E&SC measures and keep spill prevention kits available at the construction site. ➤ EPA approved BMPs as required under the Chesapeake Bay TMDL, Chesapeake Bay Agreement 2014, and EISA section 438
Hydrology	<ul style="list-style-type: none"> ➤ Restore waterways to preconstruction conditions prior to concluding construction; institute construction BMPs, such as E&SC measures to preclude sedimentation impacts to hydraulic stream conditions. ➤ EPA approved BMPs to meet the onsite stormwater retention requirements of EISA section 438
Topography	<ul style="list-style-type: none"> ➤ Use standard WSSC E&SC practices to reduce erosion and prevent impacts. ➤ Restore natural grade prior to the conclusion of construction.
Air Quality	<ul style="list-style-type: none"> ➤ Mitigate fugitive dust by following construction BMPs (including E&SC measures), such as wetting construction areas during dry periods to prevent fugitive dust from entering the air.

Resource Area	Mitigation Measure
Wetlands	<ul style="list-style-type: none"> ➤ In accordance with U.S. Army Corps of Engineers (USACE), MDE permit conditions and NPS policies, mitigate for habitat value losses as follows <ul style="list-style-type: none"> ○ Provide appropriate mitigation of impacts to wetlands, consulting with NPS, NPS Water Resources Division, MDE, and USACE. ○ Use appropriate E&SC during construction, including stabilization of exposed soil or fill material at the earliest practicable date. ○ Restore the stream to preconstruction conditions. ○ Other applicable conditions, according to the US Army Corps of Engineers umbrella permit conditions (dated May 8, 2012) and Maryland Department of the Environment, Water Management Administration umbrella permit conditions (Permit # 11-NT-0366 / 201161493, dated May 7, 2012 and June 8, 2012), and other pending permit conditions as appropriate. ➤ Compensation for wetlands on NPS Harmony Hall property as described in more detail in the Wetland Statement of Findings.
Floodplains	<ul style="list-style-type: none"> ➤ Consider the following National Flood Insurance Program construction criteria for minimizing flood damage: <ul style="list-style-type: none"> ○ Elevate critical functions above base flood elevation (not possible). ○ Flood-proof facilities that would remain below base flood elevation (conveyance system and access vault would be watertight). ○ Potentially anchor facilities at risk of movement during flood (conveyance system not at risk).
Wildlife / Wildlife Habitat	<ul style="list-style-type: none"> ➤ Terrestrial and aquatic habitat: Replant equal area of forest on NPS park property, excluding existing WSSC Right of Way with input from the NPS Biological Resource Management Division (BRMD) and US Department of the Interior. Details of mitigation and compensation are listed under "Vegetation" below. ➤ Invasive species: Seed disturbed area with turf grass in areas to be maintained or with native wetland species certified free of non-native invasive species.

Resource Area	Mitigation Measure
Vegetation	<ul style="list-style-type: none"> ➤ Minimize cutting trees whenever possible. This includes a reduced limit of disturbance discussed above as a minimization measure, when compared to the original LOD developed earlier in the design process, with the revised maximum total of 58 trees lost to construction of the access road. ➤ Clearly depict vegetation clearing limits on construction documents and provide physical “hard” protection and marking in the field to assure that the disturbance and alteration of vegetation and wildlife habitat is kept to a minimum. ➤ Restoration of parkland affected by construction shall be made according to a landscape plan reviewed and approved by NPS. WSSC will be required to mitigate for the loss of 58 trees (based on a 1:1 DBH). ➤ WSSC will compensate the United States for the loss of trees on Park land. The tree loss, as determined by a detailed tree survey of the LOD, was determined to be 58 trees. 36 CFR 14.9(g) states “To notify promptly the superintendent of the amount of merchantable timber, if any, which will be cut, removed, or destroyed in the construction and maintenance of the project, and to pay the United States through such superintendent in advance of construction such sum of money as to be the full stumpage value of the timber to be cut, removed, or destroyed.” Stumpage value is defined as a simplified net present value method where the value of the stock is obtained by multiplying the current volume of standing timber by its stumpage price. Compensation for trees cut, removed, or destroyed within this area shall be made payable to the United States upon a determination of stumpage value. The determination of stumpage value shall be made by appraisal. Said appraisal shall follow a format provided by the NPS and the cost of said appraisal shall be paid for by WSSC. This amount will be paid to the NPS before construction.
Cultural Resources	<ul style="list-style-type: none"> ➤ Protect soil from compaction by use of geotextile and rock blankets in construction work area and access road. ➤ Should any previously unidentified archeological sites or materials be encountered, excavations will stop and the Park Superintendent, Park Archeologist, Regional Archeologist, and Maryland SHPO will be notified immediately. The Regional and Park Archeologists will determine the appropriate course of action. ➤ Should any human remains be encountered, excavations will stop and the U.S. Park Police, Park Superintendent, Park Archeologist, Regional Archeologist, and the Maryland SHPO will be notified immediately. The Park Superintendent, in consultation with the U.S. Park Police, Park and Regional Archeologists, and Maryland SHPO, shall determine the appropriate course of action, following the Department of the Interior’s guidelines on human remains. ➤ All artifacts, specimens, and samples recovered from NPS property as a result of investigations conducted pursuant to this project are the property of the NPS and will be documented, curated, and conserved, as necessary, according to the standards found in 36CFR79, <i>Curation of Federally-Owned and Administered Archaeological Collections</i>; the <i>National Park Service Museum Handbook, Part 1</i>; and the requirements of the NPS’s Regional Archaeology Program for the storage of objects at the Museum Resource Center. The artifacts, specimens, and samples will be provided to the NPS upon project completion. ➤ No work will take place in the vicinity of the historic house.

value

Resource Area	Mitigation Measure
Visitor Use and Experience	<ul style="list-style-type: none"> ➤ Conduct all construction activities (including hauling) during daylight hours to avoid loud and disruptive work at night. ➤ There will be a land transfer between NPS and WSSC, to mitigate for the loss of land underneath Harmony Hall. The NPS Lands Division is preparing an agreement to exchange interests in real property, which after reviewed by the solicitors, will need to be approved before an easement can be issued to WSSC and work can begin. The NPS will be receiving two parcels of land located along the Anacostia River.
Human Health and Safety	<ul style="list-style-type: none"> ➤ Provide traffic control measures during construction. ➤ Use proper handling procedures for the handling of hazardous materials during construction.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As documented in the EA, the NPS has determined that the selected alternative can be implemented without significant adverse effects. As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an Environmental Impact Statement (EIS): Both beneficial and adverse impacts will occur to soils, water quality, wetlands, floodplain, vegetation, wildlife and wildlife habitat, cultural resources, human health and safety, and visitor use and experience as a result of implementing the selected alternative; however, the balance is beneficial. Furthermore, NPS identified no significant impacts which will require analysis in an EIS. Specific impacts identified for each impact topic are listed below.

Soil impacts include a long-term, minor effect on soils as a result of increased impervious area. WSSC will minimize these impacts by using BMPs and standard WSSC sediment and erosion control practices. Because of increased impervious area due to the selected alternative and other construction at the Broad Creek WWPS (e.g., the access vault, generator buildings, and pumping station building expansion), stormwater will increase. WSSC will accommodate this expected increase by using an overland flow system to allow infiltration and transpiration in the existing wooded land on the NPS property.

The construction activities under the selected alternative will result in minor adverse impacts on water resources in the short term. However, by eliminating SSOs, the selected alternative will result in long-term, beneficial impacts on water quality. Short-term adverse impacts will be mitigated through the use of BMPs during construction and by post construction restoration.

The construction activities under the selected alternative will result in minor adverse impacts on wetlands and waterways in the short term. However, by eliminating SSOs, the selected alternative will result in long-term beneficial impacts on wetlands and waterways. Short-term adverse impacts will be mitigated through the use of BMPs during construction and by post construction restoration and/or wetland mitigation or banking for long-term alteration.

In the selected alternative, construction will take place partially within the floodplain, and permanent sanitary sewer facilities will remain within an area susceptible to flooding. During construction, some temporary fill (about 330 cubic yards) will be added in the 100-year floodplain to create a level access road that will be removed after construction is completed. Approximately 27 cubic yards will be occupied permanently by the concrete pad associated with the maintenance access vault. However, the adverse impact to terrestrial habitat will be minor, in both the short term and the long term. Further, WSSC will mitigate the forest removal by providing compensation payments for the replacement value of the impacted forest on NPS properties, and the previously forested 0.40 acres of temporary construction access area LOD will be allowed to naturally regrow with the exception of a 12 foot buffer around the

permanent access vault (and a sidewalk to the concrete pad leading to the vault). This is outlined, in detail, in the attached Floodplain Statement of Findings.

Under the selected alternative, about 28,000 square feet of the NPS Harmony Hall property will be disturbed during construction activities. However, the adverse impact to terrestrial habitat will be minor, in the short term. Further, WSSC will mitigate the forest removal by compensation payment to the NPS. In addition, a certain portion of the temporary construction access area (LOD) will be allowed to regrow into forest naturally or facilitated by planting (planting will only occur where archeological investigations conducted for this project have been conducted).

The selected alternative will have no more than negligible short- or long-term adverse effects on archeological resources or historic sites and districts and landscapes. However, the selected alternative will alter the visual character and noise levels of the Broad Creek and Harmony Hall historic districts during construction due to the presence of items such as construction trailers, vehicles, and temporary construction fencing. This will result in no adverse long-term change in the visual environment due to the construction of a concrete pad and manhole cover, which will be flush to the ground.

Construction occurring under the selected alternative will have a minor adverse impact on visitor use and experience over the short term. Visitors may notice the tree removal, but this will not prevent passive recreational activities. Because the removed trees will be replanted, the impacts will become less perceptible over time. A beneficial, long-term impact will result from the absence of SSO debris accumulation on NPS property, and from reduced frequency of water contact recreation bans.

Over the short term, the selected alternative will result in minor adverse impacts to human health and safety—including a low potential for construction workers to be exposed to hazardous materials and an increase in truck traffic—primarily during the construction phase of the project. Safety measures will be taken to protect the workers, as best as possible. Over the long-term, the selected alternative will have a beneficial impact on human health and safety by eliminating SSOs and thereby improving water quality and reducing the health risks associated with fecal coliform bacteria and other pathogens found in SSOs.

Degree of effect on public health or safety: The selected alternative will not adversely affect public health or safety, but rather have long-term, beneficial impacts on human health and safety. It will eliminate existing SSOs, which will reduce nutrient loads; oil, grease, and chemical contaminants; total suspended solids; and concentrations of bacteria resulting in an improvement to the quality of Broad Creek and the Potomac River. The selected alternative will facilitate an overall goal meeting water use designations in the watershed.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, wetlands, prime farmlands, wild and scenic rivers, or ecologically critical areas: There are no prime farmlands, wild and scenic rivers, or ecologically critical areas within the project area. However, the EA addresses cultural resources (archeological and historic resources) as well as wildlife habitat and wetlands that will be affected by the selected alternative.

The project will involve ground disturbance, and there was an archeological site identified within the project's direct APE (18PR1023). Qualified archeological consultants, from Applied Archaeology and History Associates, Inc., completed a Phase I archeological investigation in June 2011 within the proposed limits of disturbance for immediate infrastructure installation. One ephemeral historical archeological site was identified within the limits of disturbance for the installation of the pipeline, but the artifacts were likely deposited due to run-off from higher topography, and are not eligible for the National Register of Historic Places (Tyler and Ward, June 2011).

Review of the Phase I archeology report and the geotechnical report (T.L.B. Associates, March 2011) prepared for the project, indicated that the construction of the proposed sewer line via microtunneling would occur in culturally sterile soils. The initial installation of the pipeline will not disturb cultural deposits during installation, and has no potential to disturb archeological resources; however, the property immediately above the location of the horizontal boring has a high probability to yield intact

archeological deposits and was not included in the project's direct APE. If any future pipe maintenance or failures occur, WSSC will not be allowed to come in from the top of the pipeline to make repairs.

In addition, the Preferred Alternative would result in a short-term change in the visual character and noise levels of the Broad Creek and Harmony Hall historic districts during construction due to the presence of items such as construction trailers, vehicles, and temporary construction fencing, which would be removed following construction. These features would cause negligible short-term impacts to the Harmony Hall Historic District, Broad Creek Historic District, and Piscataway House. Construction activity would not be visible or discernible from the historic resources or publicly accessed places within the historic districts, because the Broad Creek WWPS and the LOD are over 500 feet from the nearest roadway and over 800 feet from the Harmony Hall manor, the closest historic structure. Also, the area between the construction area and the LOD is heavily wooded and obscures the construction activity from vantage points within the Harmony Hall Historic District.

The proposed activity will result in 4,486 square feet (0.103 acres) of long-term impacts to a palustrine forested (PFO1A/4A) wetland and 124 square feet (0.003 acres) of short-term impacts to a perennial unconsolidated bottom (PUB2A) wetland on the Harmony Hall Park property. As Per D.O. #77-1, WSSC will compensate for unavoidable impacts to wetlands through a mitigation project to account for lost functions and values.

The NPS and WSSC developed a conceptual wetland mitigation strategy, which consists of two additional activities – direct restoration as well as non-native invasive species management. The agencies will conduct direct restoration of a portion of the disturbed palustrine wetlands (approximately 0.030 acres within the LOD). In addition, the agencies will compensate where impacts are irreversible, [i.e., where restoration of the LOD will not be possible due to permanent structure (access vault) and maintenance access requirements (0.073 acres)].

Beyond a 20 foot setback from the permanent access vault, within the wetland areas and within the LOD, approximately 0.03 acres of wetland will be restored to natural grade and replanted/reseeded. Trees/shrubs will only be planted in areas that have been tested and proven negative for archeological resources; otherwise, the revegetation will consist of reseeding with tree and shrub species

To mitigate the 0.073 acres of impact remaining, a strategy for restoration will involve non-native invasive plant species eradication in the forested wetlands surrounding the impacted wetlands on the Harmony Hall property. Invasive species to be removed from the forested wetlands include *Ailanthus* ("Tree-of-heaven"), *Microstegium* ("Japanese stiltgrass" or "Nepalese browntop"), *Persicaria perfoliata* a.k.a. *Polygonum perfoliatum* L. ("Mile-a-minute"), *Lonicera japonica* ("Honeysuckle"), *Rosa multiflora* ("Multiflora Rose"), *Fallopia japonica* a.k.a. *Polygonum cuspidatum* ("Japanese Knotweed" *Polygonum*).

NPS DO #77-2 is applicable to actions in a floodplain, with exceptions. In accordance with DO #77-2, a Floodplain Statement of Findings was prepared. Although portions of the construction of the proposed Broad Creek WWPS Conveyance System Augmentation project will be located within the 100-year floodplain, the action will not result in changes to floodplain function or increases in upstream or downstream flooding. The permanent access vault and temporary construction areas, respectively, will be designed in a manner that will not impede or accelerate high flows or inhibit the ability of the floodplain to disperse the volume and energy of floodwaters from Broad Creek and the Potomac River. Thus, the proposed construction will result in negligible impacts on floodplain functions or values.

Degree to which effects on the quality of the human environment are likely to be highly controversial: No highly controversial effects, in terms of scientific uncertainties as a result of the Selected Alternative, were identified during the preparation of the EA; and no controversy was identified by the public during the public comment period.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: No highly uncertain, unique, or unknown risks were identified during either preparation of the EA or through public comment.

Whether the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration: The selected alternative neither establishes an NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: In accordance with Section 106 of the National Historic Preservation Act (NHPA), the NPS corresponded with the state historic preservation office, the Maryland Historic Trust (MHT). MHT concurred that the selected alternative will have no adverse effect on cultural resources, and no further consultation is required. NPS sent consultation letters to the Maryland Historic Trust in April 2012. MHT concurred that there were no adverse effects to historic properties in their reply in June 2012 (see attached).

The degree to which the action may adversely affect an endangered or threatened species or its critical habitat: In accordance with Section 7 of the Endangered Species Act of 1973, NPS sent letters to solicit comments on May 10, 2010. The Maryland Department of Natural Resources (MDNR) responded on July 19, 2010 and the U.S Fish and Wildlife Service (USFWS) responded on May 20, 2010 that there are no State or Federal records for rare, threatened, or engendered species that could be adversely impacted by the proposed alternatives, in the project location (all correspondence are part of the EA). Prior to construction, during design review, WSSC will consult the NPS to determine whether the Section 7 consultation is still valid or needs to be updated based on either new species listings or design changes. Additional consultation with USFWS and MDNR will be done as required.

Whether the action threatens a violation of federal, state, or local environmental protection law: The selected alternative violates no federal, state, or local environmental protection laws.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: As described in the EA, cumulative impacts were determined by combining the impacts of the selected alternative with other present and reasonably foreseeable future actions. Cumulative actions include past projects, as well as current and future development projects occurring within the Broad Creek sewer basin. Impacts of the selected alternative on soils, water quality, wetlands, floodplain, vegetation, wildlife and wildlife habitat, cultural resources, human health and safety, and visitor/resident use and experience were identified. The NPS identified no significant cumulative impacts, when examining the selected alternative in the context of other past, present, and future development projects in the Broad Creek sewer basin.

Cumulative impacts identified for each impact topic are listed below:

The selected alternative will contribute to cumulative effects on soils when combined with other past, present, and future actions. Collectively, these projects will expose an unknown amount soil, which will be subject to erosion or compaction. Existing soils will be replaced by fill or impervious surfaces. Some of the soils may contain contaminants. To mitigate the potential cumulative soil impacts, construction contracts must include requirements for the handling and disposal of contaminated materials and include measures to control dust, protect exposed soil from precipitation and erosion, protect workers and any nearby sensitive receptors from exposure to soil contaminants, and include measures to manage stormwater. As such, the selected alternative will have a minor adverse, cumulative impact on soils.

Past and present development has incrementally increased the impervious surface in the sewer basin and in the larger watershed; this development has also contributed to the exceedance of the Broad Creek WWPS capacity. Present and future development projects will likely increase impervious surface area and exacerbate runoff and pollutant loadings into Broad Creek and the Potomac River. Additionally, upstream sources will continue to add pollutants to the rivers. However, the NPS, EPA, USACE, and various public

agencies within Maryland and the surrounding states are creating regulations, enforcing project-specific mitigations, funding projects to improve water quality, and encouraging the public to reduce nonpoint pollution sources. Although the selected alternative includes SSO reduction and will have a beneficial effect on water quality, various other sources will continue to adversely affect water quality. The effect of this project will not adversely contribute to the cumulative effect on water quality in this area.

Cumulative impacts will include potential dredging, filling, and conversion of wetlands and waterways, as well as increases in impervious surfaces. The selected alternative will contribute to the incremental cumulative effects on wetlands and waterways. Impacts to wetlands and waterways will be minimized and mitigated by project-specific federal and local protective regulations (including Sections 404 and 401 of the CWA) and stormwater, sediment, and erosion control measures that will be conditions of development. Additionally, the NPS, EPA, USACE, and various public agencies within Maryland and the surrounding states are creating regulations, funding projects to restore or mitigate wetlands and waterways, and educating the public about wetland benefits. However, incremental cumulative impacts to wetlands, especially associated with pollution loads, will still occur. Although the selected alternative will eliminate SSO discharges, an adverse cumulative impact on wetlands and waterways will still occur.

Although construction will occur within the floodplain, this alternative will not affect flood frequency, flood intensity, or the natural and beneficial values served by floodplains. Past, ongoing, and reasonably foreseeable future development projects within the floodplain—especially development associated with the National Harbor Metropolitan Center—will have a greater impact on the floodplain. The cumulative effect of the proposed alternative will be minor. However, short- and long-term adverse impacts—including cumulative effects on floodplains—are expected to be negligible to minor. The proposed improvements will be consistent with the Coastal Zone Management Act based on a Memorandum of Understanding approved June 9, 2003 and CAC review correspondence dated November 29, 2011. The selected alternative will contribute to cumulative effects on vegetation and invasive species when combined with other past, present, and future actions. The reasonably foreseeable future development projects occur in an urban environment, and vegetation in these areas are typical of urban environments and urban development. Local and federal regulations protect trees and require mitigation for tree removal and habitat disturbance. Federal and local governments, as well as private organizations, are funding projects that will provide more trees, green space, or waterways restoration. Minor adverse, cumulative impact on vegetation and invasive species will still occur as a result of reasonably foreseeable future development involving incremental reductions in vegetation.

The reasonably foreseeable future development projects and wildlife in these areas are typical of urban environments and urban development. Local and federal regulations protect trees and require mitigation for tree removal and habitat disturbance and there are projects that will provide more trees, green space, or waterways restoration; this will support wildlife habitat. Although aquatic species will benefit from the increased water quality afforded by the selected alternative, a minor adverse, cumulative impact on wildlife and wildlife habitat will still occur as a result of reasonably foreseeable future development (see Figure 4.1, p.61). Incremental reductions in vegetation and water quality are likely; aquatic vegetation will also be exposed to pollution from other sources.

Within the sewer basin, development and construction will occur within the historic district and on historic property, and subsurface construction will have the potential to affect archeological resources. However, all cultural resources located on federal property or associated with projects that use federal funding are protected by multiple federal laws, including the NHPA, which require mitigation to protect cultural resources. Also, any construction or development within a designated historic district must conform to specified design criteria, a requirement that is intended to protect cultural resources. The cumulative impact of the selected alternative to cultural resources will be negligible.

Once operational, the selected alternative will have a beneficial impact on human health and safety by improving water quality and reducing human health risks associated with primary contact with fecal coliform bacteria and other pathogens found in SSOs. Current and future development activities will continue to incrementally increase impervious surfaces and pollutant loading, thereby contributing to existing water quality impacts in Broad Creek and the Potomac River. Current and future soil

contamination, although difficult to project, is expected to be minimal as a result of strict environmental regulations. Although substantial efforts will be made to eliminate the release of and exposure to hazardous materials during construction of present and future development, past development has resulted in an array of hazardous materials at sites in or near the sewer basin. Future development could uncover or release contaminants. Construction documents will require mitigation on the handling and disposal of all contaminated materials, although minimal risks related to the release of and exposure to hazardous materials will remain. There is the potential for minor adverse, cumulative impacts to human health and safety.

The selected alternative, when combined with past and future developments, will contribute to the cumulative effect on visitor use and experience within the NACE property. Aside from the selected alternative, the only reasonably foreseeable future activities within the park are (1) nonspecified future improvements to Harmony Hall and (2) future maintenance of the WSSC sewer facilities located within the park. Neither of those events will prohibit or worsen visitor use and experience; the park will cumulatively benefit from these activities.

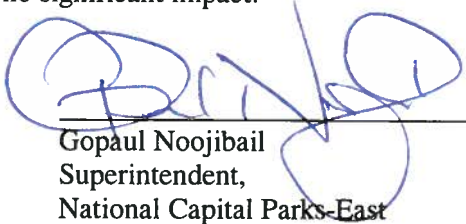
PUBLIC INVOLVEMENT

The NPS places a high priority on public involvement in the NEPA process and on giving the public an opportunity to comment on proposed actions. As part of the NPS NEPA process, potential issues associated with the proposed Broad Creek WWPS Conveyance System Augmentation project were identified during scoping meetings held between the NPS and WSSC and have been communicated to other affected agencies and stakeholders. Public involvement for the proposed project has been on-going since the project's inception in 2005. From September 16 through October, 15 2011 the public had the opportunity to comment on the purpose, need and objectives for the project. And on April 4, 2013 the public had 30 days to comment on the EA. No comments were received during either of these two periods.

CONCLUSION

The NPS has selected alternative 5A1-Modified for WSSC's implementation. In light of the impacts described in the EA and with guidance from NPS *Management Policies 2006*, natural and cultural resources information, professional judgment, and consideration of agency and public comments, the impacts that will result from the selected alternative will not impair any NPS property resources and values. The selected alternative does not constitute an action that will require the preparation of an EIS. The selected alternative will not have a significant effect on the human environment. Long-term, adverse environmental impacts that will occur are negligible to moderate in intensity. There are no significant impacts on soils, water quality, wetlands, vegetation, wildlife and wildlife habitat, cultural resources, aesthetics, land use, human health and safety, and visitor/resident use and experience. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

Based on the foregoing understanding, an EIS is not required for this action and thus will not be prepared. This is a finding of no significant impact.

Recommended:

Gopaul Noojibail
Superintendent,
National Capital Parks-East9/21/15

Date**Approved:**

Robert A. Vogel
Deputy Regional Director
National Park Service National Capital Region10/6/2015

Date

NON - IMPAIRMENT DETERMINATION

The determination on impairment has been prepared for the selected alternative. An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience, human health and safety, or neighborhoods because impairment findings relate back to Park resources and values, and these impact areas are not generally considered to be Park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair Park resources and values.

The NPS has determined that the implementation of the selected alternative will not constitute an impairment to the resources or values of Harmony Hall. This conclusion is based on consideration of the thorough analysis of the environmental impacts described in the EA, relevant scientific studies, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction in NPS *Management Policies 2006*. Implementation of the NPS preferred alternative will not result in impairment of Park resources or values whose conservation is (1) necessary to fulfill specific purposes identified in the Park's establishing legislation, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the Park, or (3) identified in the Park's management plan or other relevant NPS planning documents as being of significance.

The selected alternative will result in short-term to long-term negligible to moderate adverse impacts on some of the Park's resources, which include soils, water quality, hydrology, wetlands, floodplains, wildlife and wildlife habitat, vegetation, and cultural resources.

Soils

Part of the purpose of National Capital Parks-East is to protect and preserve the Park's natural resources, which includes stabilized soils that support natural vegetation and wildlife habitat. Construction activities associated with the selected alternative will involve ground disturbances such as grading, leveling, and filling, which would result in disturbance of soils. Although the selected alternative will include the clearing of vegetation and exposure of soils, the impacts will be limited to the project areas and soil productivity and characteristics will not change outside of the limit of disturbance. The use of permeable materials and erosion control measures will ensure the alternative will not increase sedimentation in the Potomac River. Soils throughout the project area are mostly previously disturbed (there is artificial fill beneath the topsoil at this site location, composed of sands and varying amounts of clay, silt and gravel and will not experience significant adverse impacts as a result of implementation of the preferred alternative. Since the selected alternative will not inhibit the Park's ability to protect natural resources, including stabilized and productive soils, the selected alternative will not result in an overall impairment of soils.

Water Quality

Part of the purpose of National Capital Parks-East is to protect and preserve the Park's natural resources, which includes the water quality. Currently, the Broad Creek WWPS has a history of untreated SSO to Broad Creek during extreme rain events due to inadequate pumping station capacity. Between 2006 and 2012, the Broad Creek WWPS had a total of nine SSO events exceeding 10,000 gallons. The largest event occurred in June 2006, when heavy rains and a power failure resulted in an SSO of 6.2 million gallons. In 2011, the Broad Creek WWPS had three SSOs with a combined total of at least 5.2 million gallons (Gazette, December 2011). In 2010, WSSC analyzed 30 water samples in the Potomac River watershed for the presence of *Escherichia coli* (*E. coli*) bacteria, an indicator of degraded water quality due to fecal contamination. WSSC found that Broad Creek, in the area downstream of the Broad Creek WWPS, had the highest fecal bacteria count of any of the 30 sampling stations in the watershed (WSSC, August 2010B). Since the selected alternative will not inhibit the Park's ability to protect natural resources, and will greatly improve the water quality in the long-term, the selected alternative will not result in an overall impairment of water quality.

Hydrology

Part of the purpose of National Capital Parks-East is to protect and preserve the Park's natural resources, which include hydrology. There are two small channels of water in the proximity of the selected alternative. During construction of the selected alternative, 11 linear feet of streambank and 124 square feet of streambed will be temporarily disturbed. This adverse impact to waterway hydraulics and hydrology would be short-term and minor, incurred by activity such as temporary fill to accommodate construction equipment within a portion of the stream channel, but not blocking the entire waterway. During construction, the occasional low-volume, low-velocity flows in the shallow channel would be diverted around the LOD (which would be occupied by fill and/or sheet piling creating a sort of coffer , and normal flow conditions would be restored at the conclusion of construction.

Short-term adverse impacts to hydrology would be mitigated through the use of BMPs during construction and by post construction restoration of the impacted stream channel. However, by eliminating SSOs, the selected alternative would result in long-term beneficial impacts to hydrology. Since the selected alternative will not inhibit the Park's ability to protect natural resources, and in the long term will improve hydrology, the selected alternative will not result in an overall impairment of water quality.

Wetlands

Part of the purpose of National Capital Parks-East is protection of natural resources, including the protection and preservation of wetlands contained within the Park. The construction of the selected alternative was designed to avoid wetlands existing within the Park as much as possible (including avoiding most of the 3.53 acre wetland on the east side of the WSSC facility). The selected alternative will impact .103 acres of wetlands. Of those .103 acres of wetlands, .077 acres will be permanently occupied by the concrete valve and .026 acres will be restored to emergent wetlands after construction activities are concluded. Due to the nature of the impacts, a Wetlands Statement of Finding was prepared, as an attached to the EA.

Although adverse impacts are both short-term and long-term, they are considered minor. The impact area is detectable but relatively small, and the wetland processes, functions and overall integrity would remain unaffected. The purpose of this project, the elimination of SSO's, could improve the overall health of other nearby wetlands and may include long-term beneficial impacts by reducing nutrition pollution.

While there will be direct impacts to wetlands, the impacts will not be significant, and the wetlands are not key to the natural or cultural integrity of the Park outside Harmony Hall. The Park will continue to be able to protect natural resources and will use mitigation measures to limit impacts. Because the Park will continue to be able to meet the Park mission and fulfill the Park purpose under the enabling legislation, the selected alternative will not result in impairment.

Floodplains

Part of the purpose of National Capital Parks-East is protection of natural resources, including the protection and preservation of floodplains. The selected alternative would be constructed partially within the floodplain (an Floodplain Statement of Finding was prepared) and permanent sanitary sewer facilities would remain within an area susceptible to flooding. The shaft and vault would occupy an estimated .03 percent of the floodplain cross-section. During construction, there will be some temporary fill (about 330 cubic yards) in the 100-year floodplain, to create a level access road. This would be removed after construction is complete.

The Broad Creek WWPS is located in a forested area on the floodplain fringe, where flood velocities are the lowest. Given the minimal volume of floodplain loss and the location of the proposed project on the floodplain fringe, increased flood elevations or velocities are not expected to be detectable. The permanent access vault will be designed in a manner that will not impede or accelerate high flows or inhibit the ability of the floodplain to disperse the volume and energy of floodwaters from Broad Creek and the Potomac River. Thus, the proposed construction will result in negligible impacts on floodplain functions or values. Therefore, the selected alternative will not result in impairment.

Wildlife and Wildlife Habitat

Part of the purpose of National Capital Parks-East is protection of natural resources, including wildlife and wildlife habitat. Construction elements and visitor activities associated with the selected alternative will displace species that currently use the areas of Harmony Hall, resulting from human activity and noise associated with construction activities. The mortality or injury of smaller, less mobile species could occur as a result of construction; however, impacts to wildlife and wildlife habitat resulting from construction are expected to be minimal due to the relatively small area being affected and the ability of adjacent areas to provide adequate habitat. Wildlife disturbed in the area of the project are expected to be temporarily displaced due to construction; however, wildlife habitat in these areas will not be significantly modified, and upon the completion of construction, it is expected that wildlife will resume utilizing the area in a similar manner as before. Overall, activities associated with the selected alternative are not likely to constitute an impairment of wildlife or wildlife habitat.

Vegetation

One purpose of the Park is to preserve the natural scenery and forest. While activities associated with the selected alternative will involve the removal of turf and native vegetation including trees, vegetation in the proximity of the proposed location will experience only slight impacts to a relatively small portion of plants and trees proposed to be affected. Although an estimated 58 trees will be removed through the selected alternative in currently undisturbed areas, the population of these vegetative species will not be significantly compromised and the overall natural scenery will be preserved. Additionally, the design has been changed several times over the past four years to avoid as many healthy native trees as possible. Therefore, impacts of the selected alternative will not constitute an impairment of vegetation.

Cultural Resources

Part of the purpose of National Capital Parks-East is protection of cultural resources, including archeology and historic districts. There was an archeological site identified within the project's APE (18PR1023), but it is not historically significant. The selected alternative would not cause any long-term direct impacts to NRHP-eligible archeological resources because site 18PR1023 is not considered to be eligible for the NRHP; therefore, long-term adverse impacts would be negligible. The remained of the project would be constructed within culturally sterile soils via horizontal boring and has no potential to disturb archeological resources, if the pipe functions as expected.

The selected alternative would result in a short-term change in the visual character and noise levels of the Broad Creek and Harmony Hall historic districts during construction due to the presence of items such as construction trailers, vehicles, and temporary construction fencing, which would be removed following construction. These features would cause negligible short-term impacts to the Harmony Hall Historic District, Broad Creek Historic District, and Piscataway House. Construction activity would not be visible or discernible from the historic resources or publicly accessed places within the historic districts, because the LOD are over 500 feet from the nearest roadway and over 800 feet from the Harmony Hall manor, the closest historic structure. Also, the area between the construction area and the LOD is heavily wooded and obscures the construction activity from vantage points within the Harmony Hall Historic District.

The Preferred Alternative would result in a long-term change in the visual environment due to the construction of a concrete pad and manhole cover at ground level. The placement of the pad and manhole cover, adjacent to the existing Broad Creek WWPS, would not result in physical disturbance to any historic structures or a change in the auditory environment; in addition, its low profile would not be visible from the closest yard areas of the Want Water, Piscataway House, and Harmony Hall structures. The concrete pad would cause negligible long-term impacts to the Harmony Hall Historic District, Broad Creek Historic District, and Piscataway House.

Since the selected alternative will not inhibit the Park's ability to protect archeology and historic districts, the selected alternative will not result in an overall impairment of cultural resources.

ATTACHMENT C: ENVIRONMENTAL ASSESSMENT ERRATA

The following changes have been made to the *Broad Creek Wastewater Pumping Station Conveyance System Augmentation Proposed Force Main Addition Environmental Assessment* (March 2013) to correct the mechanism that will allow the work to occur within NPS lands. The EA states that a Right-of-Way permit is needed to allow work to proceed, but it has been decided that an easement to WSSC, with land exchange to the NPS, would be the best way to move forward. This will not change any of the impacts of the proposal. Additions to the text are identified by underlines and deletions are marked by strikeouts.

Additions to the text are identified by underlines and deletions are marked by strikeouts unless otherwise noted.

PROJECT SUMMARY (PAGE I)

The following Environmental Assessment (EA) evaluates the potential environmental effects of the proposed Broad Creek Wastewater Pumping Station (WWPS) Conveyance System Augmentation project at Harmony Hall, a National Park Service (NPS) property in Prince George's County, Maryland. The Washington Suburban Sanitary Commission (WSSC) and the NPS prepared the EA in accordance with the *National Environmental Policy Act of 1969* (NEPA) and other environmental laws, regulations, and executive orders. Because WSSC is required to obtain an easement ~~Right-of-Way permit for construction on NPS property~~, and due to proposed permanent alterations, an EA is required. Compliance with Section 106 of the National Historic Preservation Act is documented in this EA.

2.2 ALTERNATIVE 5A1-MODIFIED: UPGRADES TO PUMPING STATION PUMPS AND CONVEYANCE SYSTEM AUGMENTATION, DIRECT DIAGONAL ALIGNMENT – NPS PREFERRED ALTERNATIVE (PAGE 23)

Alternative 5A1-modified would require an easement ~~construction rights-of-way (ROW)~~ from the NPS to construct a pit to allow MTBM removal and a permanent access vault. Alignment A1-modified would involve an access easement to the permanent access vault as well as a ROW agreement between WSSC and the NPS for all facilities on NPS property, including the tunnel alignment.

TABLE 2.1 – PROPOSED MITIGATION ACTION (PAGE 32)

Wildlife and Wildlife Habitat - WSSC providing compensation payments to a designated account for restoration of natural landscapes and cultural landscapes. Compensation payments will be agreed to before an easement is issued ~~as a condition of the Right-of-Way permit requested by the WSSC~~ from the NPS.

Vegetation - Mitigate with full compensation payments to allow NPS to restore natural and cultural landscapes. This will be calculated in an equitable and agreed-upon method stated in the separate correspondence, and will be agreed to before an easement is ~~as part of the Right-of-Way permit agreement~~ issued by the NPS to the WSSC