

National Park Service  
U.S. Department of the Interior

George Washington Memorial Parkway  
Glen Echo Park  
Glen Echo, MD



## **GLEN ECHO PARK MANAGEMENT PLAN AMENDMENT**

**ENVIRONMENTAL ASSESSMENT  
FEBRUARY 2026**

**PLANNING, ENVIRONMENT & PUBLIC COMMENT (PEPC) #124125**

Page Intentionally Left Blank

## TABLE OF CONTENTS

<b>CHAPTER 1: PURPOSE AND NEED</b>	<b>1</b>
Introduction	1
Project Area Location and Description	2
Impact Topics Retained for Detailed Analysis	6
Impact Topics Dismissed from Detailed Analysis	7
<b>CHAPTER 2: ALTERNATIVES</b>	<b>13</b>
Alternative A: No Action	13
Alternative B: Management Plan Amendment (Proposed Action)	19
Mitigation Measures of the Proposed Action	26
Alternatives Dismissed from Further Consideration	27
<b>CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES</b>	<b>29</b>
Historic Properties, Buildings and Structures	29
Cultural Landscapes	38
Vegetation	49
Visitor Use and Experience	52
<b>CHAPTER 4: CONSULTATION AND COORDINATION</b>	<b>59</b>
<b>LIST OF PREPARERS AND CONTRIBUTORS</b>	<b>60</b>
<b>REFERENCES</b>	<b>62</b>

**FIGURES**

Figure 1: Project Area Context ..... 4

Figure 2: Project Area and Existing Conditions ..... 5

Figure 3: 2001 Plan Management Zones ..... 15

Figure 4: Existing Conditions ..... 16

Figure 5: Existing Conditions – Minnehaha Woodland ..... 17

Figure 6: Existing Stormwater Management Issues ..... 18

Figure 7: Alternative B – Proposed Building and Structure Removal..... 21

Figure 8: Alternative B – Proposed Buildable Zones ..... 22

Figure 9: Alternative B – Proposed Accessibility Improvements ..... 24

Figure 10: Alternative B – Proposed Stormwater Management Improvements..... 25

Figure 11: Main Entrance/Aquarium Buildable Zone ..... 27

Figure 12: Area of Potential Effect..... 30

Figure 13: Glen Echo Amusement Park – Contributing Elements ..... 31

Figure 14: Chesapeake and Ohio Canal National Historical Park Historic District Contributing Elements within the APE ..... 34

Figure 15: George Washington Memorial Parkway Historic District Contributing Elements within the APE..... 36

**TABLES**

Table 1: Glen Echo Park – Clara Barton House Cultural Landscape – Contributing Elements... 40

Table 2: Glen Echo Park Crystal Pool Cultural Landscape – Contributing Elements..... 42

Table 3: Clara Barton National Historic Site Cultural Landscape – Contributing Elements ..... 44

Table 4: Clara Barton Parkway Cultural Landscape – Contributing Elements ..... 46

## CHAPTER 1: PURPOSE AND NEED

### INTRODUCTION

The National Park Service (NPS) proposes a Management Plan Amendment (Plan) for Glen Echo Park (Park) in Glen Echo, Maryland (MD) to evaluate current land use and facility capacity of the entire site before individual projects can be approved to expand the built area. The Park offers year-round arts and cultural programming and special events within the unique historic setting of the former Glen Echo Amusement Park. The Park is owned by the NPS. Under a Cooperative Agreement with NPS, Montgomery County (County) is responsible for routine maintenance and operations of the nine-acre Park, which it does with its partner, the Glen Echo Park Partnership for Arts and Culture (GEPPAC). GEPPAC operates the Park and its programs. The NPS retains overall stewardship of the federal property, including setting standards for historic preservation, interpretation, signage content, permitting, and compliance, while providing oversight and approvals for partner activities. NPS also serves as the coordinating authority among partners, particularly for resource protection, planning reviews, and emergency stabilization, even though day-to-day operations and maintenance are largely carried out by Montgomery County and GEPPAC.

This Plan would amend the Glen Echo Park 2001 Management Plan and Environmental Impact Statement (EIS) (2001 Plan), which selected a partnership management structure for the Park as the preferred alternative. In 2002, the NPS and the County entered into a cooperative agreement to assign daily management of Glen Echo Park to the County. In turn, the County established a non-profit organization, GEPPAC, as an independent non-profit partner to serve as the on-site manager and program leader within the Park. Today, existing facilities are fully programmed and there is no unused building space that allows for additional public programming. New development at the Park is permitted if it is consistent with the Park's management zoning map and Park mission goals. The NPS would need to approve any new development and prepare appropriate natural and cultural resource compliance documentation.

This Environmental Assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq)<sup>1</sup>; the Department of the Interior NEPA regulations (43 CFR Part 46); and NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis and Decision-making and its

---

<sup>1</sup> Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. The National Park Service verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The NPS has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

accompanying NPS NEPA Handbook, the National Park Service (NPS) prepared an Environmental Assessment (EA).

### **Purpose of and Need for Action**

The purpose of the proposed action is to develop a Management Plan Amendment for Glen Echo Park that protects the Park's cultural and natural resources while providing guidance to achieve the following:

- Increase capacity for arts and cultural programming, special events, and future programming related to history and the environment at the site.
- Provide capacity for future programming related to desegregation and African American history associated with the Park.
- Improve the visitor experience through expanding amenities at the Park and enhancing circulation and wayfinding to and within the Park.
- Improve physical and programmatic accessibility deficiencies.

The Glen Echo Park Management Plan Amendment is needed to address the following issues:

- Existing facilities are fully programmed. There is no unused building space that allows for additional public programming. There is an unmet demand for additional arts and cultural programming.
- The Park lacks interpretation of a comprehensive history of the site.
- Current infrastructure within the Park minimally supports visitors who arrive by walking, biking, or public transportation.
- Many buildings, outdoor spaces and circulation routes, and programs are not fully Architectural Barriers Act (ABA) accessible, creating barriers for visitors with disabilities.
- Increasing visitor demand requires adaptable Park facilities and outdoor spaces that support programming throughout all seasons.

### **PROJECT AREA LOCATION AND DESCRIPTION**

The project area consists of an approximately 20.5-acre site located approximately seven-and-a-half miles northwest of Washington, DC in Glen Echo, Maryland, which is in Montgomery County. The project area includes the approximately nine-acre Glen Echo Park, a permit parking lot between Glen Echo Park and MacArthur Boulevard, and a portion of the Clara Barton National Historic Site. The portion of the Clara Barton National Historic Site within the project area is a parking lot area shared between the Clara Barton National Historic Site and Glen Echo Park. This parking lot area is co-managed by NPS and Montgomery County.

The project area is adjacent to the Town of Glen Echo, and is bordered by the Clara Barton Parkway to the southwest; the Clara Barton House and residential communities to the northwest; MacArthur Boulevard to the northeast; and Tulane Avenue businesses to the southeast (**Figure 1** and **Figure 2**). Overall, the project area is located within a forested suburban setting on a river bluff overlooking the Chesapeake and Ohio Canal National Historical Park and the Potomac River. The western half of the project area is a large surface parking lot that provides visitor parking for the Clara Barton National Historic Site and Glen Echo Park. The project area is bisected by the Minnehaha Creek (a tributary of the Potomac River) and surrounding woodlands. A pedestrian foot bridge provides access from the parking lot across the Minnehaha Creek to

Glen Echo Park. Glen Echo Park contains approximately 30 buildings of varying ages and styles, some of which are associated with the site's development during the Chautauqua<sup>2</sup> educational movement and former use as an amusement park, set within a park-like setting with paved paths, open spaces, picnic areas, and wooded areas.

For over a century, the Glen Echo Park has served as a center for education, entertainment and cultural development. In 1891, it served as the National Chautauqua site, then as an amusement park, and finally as a NPS managed arts and cultural park. In 1970, the federal government's General Services Administration (GSA) acquired the Park and gave the NPS the responsibility of managing the Park. GSA formally transferred the title to the NPS in 1976. The Park preserves the only Chautauqua assembly site and the only early 20th-century trolley amusement park in the national park system. It serves as a regional center for arts and culture, providing year-round educational opportunities to the public.

GEPPAC provides a wide range of artistic, cultural, and educational offerings at Glen Echo Park, including festivals, concerts, art classes, and social dances, while also managing historic facilities like the Spanish Ballroom and Dentzel carousel. It collaborates with resident and visiting artists and organizations to produce and curate Park content and supports a vibrant community of creatives. The Park, which attracts over 300,000 visitors annually, is also home to 13 resident organizations and the Glen Echo Park Aquarium, a Chesapeake Bay Learning Center (GEPPAC 2022, NPS 2023, 2025).

Although the project area includes area beyond the formal boundary of Glen Echo Park, for the purposes of this document, the project area will be referred to herein as the "Park."

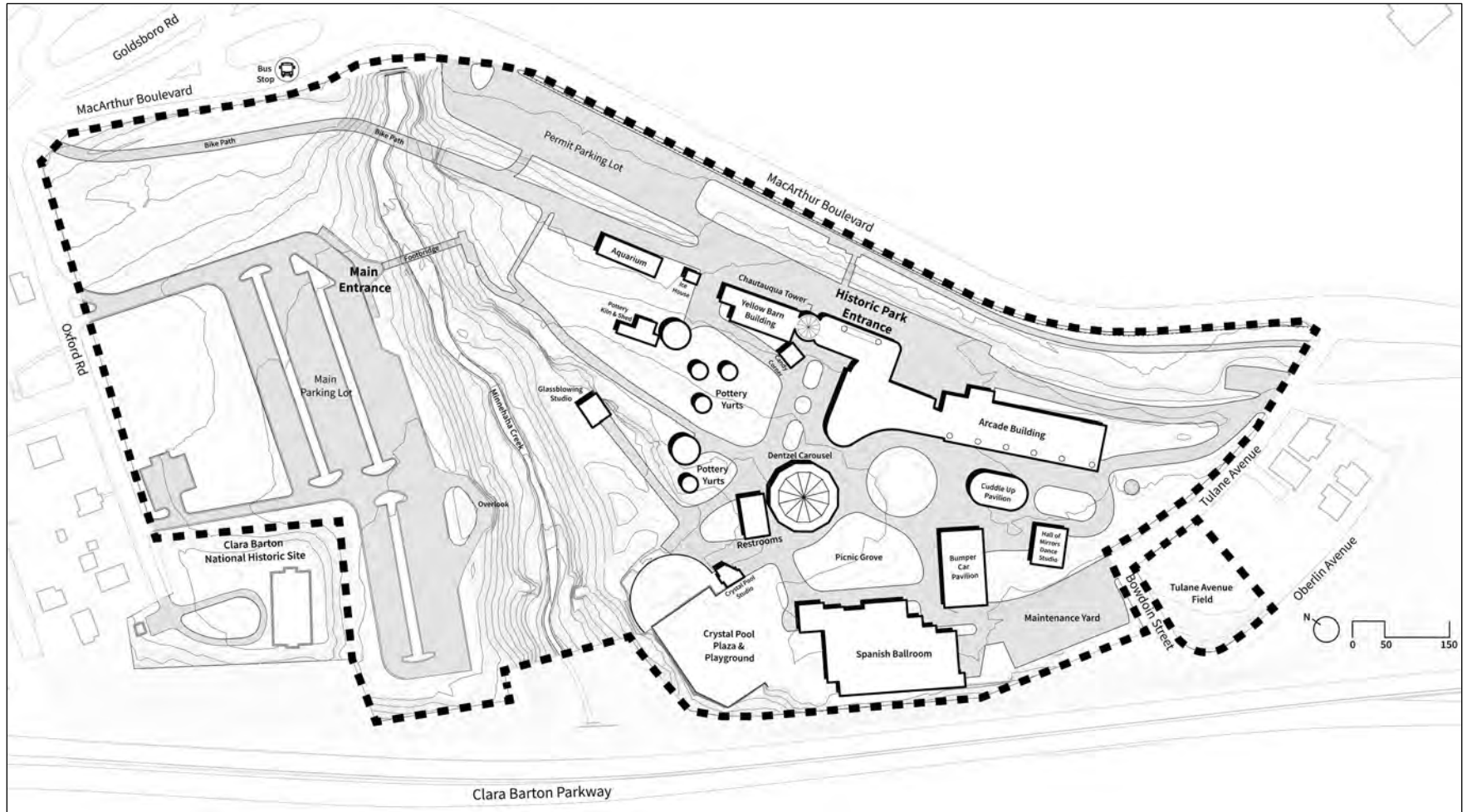
---

<sup>2</sup> The Chautauqua educational movement grew out of an assembly first held in Chautauqua, New York, in 1874. The Chautauqua concept centered on religious and secular education, as well as various leisure activities, offered on a seasonal basis on a campus setting. The National Chautauqua of Glen Echo, the 53<sup>rd</sup> such assembly to be established, was incorporated in 1891. In early 1891, active construction began at Glen Echo to embellish the natural scenery of the property and construct buildings to house the Chautauqua Assembly programs. The Chautauqua at Glen Echo lasted for just one season (GEPPAC 2022; NPS 2011, 2023).

Figure 1: Project Area Context



Figure 2: Project Area and Existing Conditions



## Impact Topics Retained for Detailed Analysis

During the planning process, the NPS identified specific impact topics critical to the Park. Impact topics are a means of organizing the discussion of issues and analysis of impacts. In the context of NEPA reviews, issues can be problems, concerns, conflicts, obstacles, or benefits that would result if the proposed action or alternatives, including the no-action alternative, are implemented. During the scoping process, impact topics were either retained for further analysis or dismissed from further consideration. This section provides an overview of the impact topics that were retained for analysis. A topic was retained for analysis if it met one or more of the following conditions:

- The environmental impacts associated with the issue are central to the proposal or of critical importance;
- A detailed analysis of environmental impacts related to the issue is necessary to make a reasoned choice between alternatives;
- The environmental impacts associated with the issue are a big point of contention among the public or other agencies; or
- There are potentially significant impacts to resources associated with the issue.

These impact topics are discussed in Chapter 3: Affected Environment and Environmental Consequences of this EA.

**Historic properties, buildings, and structures.** The Plan would remove buildings and structures, identify zones for future development, improve site accessibility, and introduce new circulation within or near historic districts and individually listed historic properties that have been listed in the National Register of Historic Places. These resources include the following: Glen Echo Amusement Park Historic District, Chautauqua Tower, Carousel at Glen Echo Park, the Clara Barton House National Historic Site, the Chesapeake and Ohio Canal National Historical Park Historic District, the Washington Aqueduct, and the George Washington Memorial Parkway (including the Clara Barton Parkway) Historic District. These issues are analyzed under the *Historic Districts, Buildings, and Structures* impact topic.

**Cultural landscapes.** The Plan would remove buildings and structures, identify zones for future development, improve site accessibility, and introduce new circulation within the Glen Echo Park-Clara Barton House, Glen Echo Park Crystal Pool, and/or Clara Barton National Historic Site cultural landscapes. These changes could also be visible from contributing views and vistas of the Clara Barton Parkway cultural landscape. These changes would not impact contributing land uses of the Glen Echo Park-Clara Barton House, Clara Barton National Historic Site, and Clara Barton Parkway cultural landscapes. These issues are analyzed under the *Cultural Landscapes* impact topic.

**Vegetation.** The Plan would identify zones for future development and proposes new circulation that could result in the disturbance or removal of existing vegetation, including within the woodland area surrounding the Minnehaha Creek. These issues are analyzed under the *Vegetation* impact topic.

**Visitor use and experience.** The Plan identifies zones for future development to support expanded public programming and visitor services at the Park. The proposed accessibility

improvements would improve access and circulation within the Park for visitors with disabilities. Expanded programming could also create additional parking demand. These issues are analyzed under the *Visitor Use and Experience* impact topic.

### **IMPACT TOPICS DISMISSED FROM DETAILED ANALYSIS**

The NPS has dismissed the following issues and associated impact topics from detailed analysis for the reasons provided. An impact topic was initially considered but dismissed from detailed analysis if it did not contribute to the factors outlined above. This section will provide brief descriptions of the issues and concerns determined not to warrant further consideration, as well as a summary justification for the dismissal of each issue.

**Archeological resources.** In 1982, the NPS undertook an archeological overview and assessment of Glen Echo Park's potential archeological resources. The assessment concluded that any prehistoric resources originally present at the site would have likely been disturbed or destroyed by the development of the Chautauqua campus and amusement park. However, intact prehistoric deposits were discovered in both Glen Echo Park and the Clara Barton National Historic Site during Section 106 compliance testing since the NPS report.

Intact structural remains dating to the Chautauqua period, including the ruins of the Chautauqua Amphitheater and Hall of Philosophy, are still present and could be explored archeologically. The Glen Echo Park-Clara Barton House Cultural Landscape Inventory (CLI) report (2011) states in its Archeological Sites section that “given the historic nature of the project area, contributing resources may exist. Further archaeological study and evaluation could reveal information relevant to the landscape’s prehistory, about the Chautauqua and amusement park periods at Glen Echo Park, and the ways in which Clara Barton developed and utilized her property” (NPS 2011: 170). Furthermore, the Glen Echo Park Crystal Pool Cultural Landscapes Report (CLR) Part I (2025) notes that for the remnant features of the Crystal Pool landscape, which can be recognized as ruins, “there is potential for these features to exist as an archeological site, with potential significance relative to construction innovation and regional building techniques” (NPS 2025: 4-37). The Clara Barton National Historic Site CLR (2023) further notes that “[a]lthough not related to the areas of significance ascribed to the Clara Barton NHS, the property exists within the traditional lands of the Nacotchtank and may hold archeological data for the pre-contact period. For the historic period, an archeological assessment in 2022 determined that the areas west and south of the [Clara Barton] house have moderate to high potential for archeological data” (NPS 2023: 4.37). The Clara Barton Parkway CLI (2015) also notes that remnants of the DC Transit streetcar line are also likely to exist especially at the endpoint of the line just beyond Glen Echo (NPS 2015a).

Ground disturbance associated with future development at the Park could disrupt or displace known or unknown archeological resources. The proposed Plan is limited to identifying potential areas for development (i.e., the buildable zones) and circulation, accessibility, and stormwater management improvements. At this time, it is unknown if development within the buildable zones and the circulation, accessibility, and stormwater management improvements would involve ground disturbance. Further design development within the buildable zones is needed following the EA. Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the National Historic Preservation Act (NHPA) compliance process separately to assess potential effects on archeological resources and

identify methods avoid, minimize, or mitigate effects on archeological resources. Consultation with the Maryland Historical Trust (MHT) (i.e., Maryland's State Historic Preservation Office) and relevant tribes would occur as specific projects are designed and implemented. Therefore, the NPS has dismissed *archeological resources* from further analysis.

**Wetlands.** Approximately 0.4 acres of the 20.5-acre Park (or approximately two percent) are classified as wetlands according to the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory. Riverine wetlands are located along Minnehaha Creek in the Park (MNCPPC).

The Plan proposes a buildable zone for a secondary access bridge over Minnehaha Creek and the riverine wetlands. The NPS would adhere to procedures set forth in *Procedural Manual #77-1: Wetland Protection* in order to comply with NPS Director's Order (D.O.) #77-1: Wetland Protection and to avoid, minimize, and compensate for adverse impacts on wetlands. *Procedural Manual #77-1* defines the actions listed below, which include elements of the proposed Plan, that may be excepted actions from the Statement of Findings requirements and compensation requirements described in the manual as long as specific conditions and Best Management Practices (BMPs) are satisfied. The NPS would adhere to the following conditions and BMPs identified in *Procedural Manual #77-1* in the development of the secondary access bridge (NPS 2016):

- Scenic overlooks and foot/bike trails or boardwalks, including signs, where primary purposes include public education, interpretation, or enjoyment of wetland resources and where total wetland impacts from fill placement are 0.1 acre or less
- Minor stream crossings would use bridges or other structures that completely span the channel and associated wetland habitat (i.e., no pilings, fill, or other support structures in the wetland/stream habitat).

The riverine wetland crossing associated with the secondary access bridge would be constructed to span the full channel width from uplands to uplands, thereby avoiding impacts to riverine wetlands. The NPS would also adhere to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899, obtain all necessary federal and state permits for proposed Plan actions occurring in wetlands, and adhere to applicable requirements set forth in the permits. Adherence to the requirements of *Procedural Manual #77-1* and applicable federal and state permits and regulations would ensure that the proposed Plan would avoid wetlands and minimize unavoidable wetland impacts to the extent feasible. Therefore, the NPS has dismissed *wetlands* from further analysis.

**Floodplains.** According to FEMA's Effective Flood Insurance Rate Map (FIRM), the Park is not located within floodplains (FEMA FIRM Panel 24031C0435D (September 29, 2006)). FEMA has released its Preliminary FIRM for Montgomery County, which shows the Minnehaha Creek and the surrounding Minnehaha Woodland within the floodway and 100-year floodplain (Montgomery County DPS n.d.). However, at the time of preparing this EA, this Preliminary FIRM has not been finalized and is subject to change.

The Plan proposes a buildable zone for a secondary access bridge over Minnehaha Creek and through the Minnehaha Woodland, which are in the preliminary floodway and preliminary 100-year floodplain. Design work associated with this bridge and other individual development

projects would occur in the future and may require separate NEPA compliance where floodplain impacts would be further assessed. Whether a Floodplain Statement of Findings is required would also be assessed based on whether the development projects are proposed within the mapped floodplain. Therefore, the NPS has dismissed *floodplains* from further analysis .

**Water resources.** The project area lies within the Potomac River watershed. Minnehaha Creek, a perennial stream and small tributary of the Potomac River, bisects the project area. To the north of the project area, the creek flows under MacArthur Boulevard through a culvert before flowing south approximately 1,000 feet through an open natural channel and a culvert that passes under the Clara Barton Parkway before draining to the Chesapeake and Ohio Canal.

The section of Minnehaha Creek that flows through the project area was previously encased inside a culvert and covered by a parking lot from the 1950s to 1989. Following the parking lot collapse in 1989 during a flash flood, the NPS restored the natural stream bed of Minnehaha Creek and the creek valley was restored to its pre-existing topography and vegetation in 1992 (NPS 2001, 2011, 2025).

The proposed Plan is limited to identifying potential areas for development (i.e., the buildable zones) and circulation, accessibility, and stormwater management improvements. Construction activities associated with the proposed buildable zones could have the potential to disturb soil and remove vegetation. At this time, it is unknown if development within the buildable zones and the circulation, accessibility, and stormwater management improvements would involve ground disturbance and if so, how much soil would be disturbed. Further design development within the buildable zones is needed following the EA.

Potential soil disturbance and vegetation removal would increase the vulnerability of soil to water and wind erosion and potentially result in the corresponding sedimentation and pollution of downstream watercourses during construction. The NPS and/or its contractors would adhere to applicable BMPs during the construction phases to minimize the erosion of exposed soils and the corresponding pollution and sedimentation of downstream watercourses. Any erosion/sediment control and stormwater management practices would be permitted through the Maryland Department of the Environment (MDE). The phasing of the proposed Plan over the long term could increase long-term sediment load resulting from construction activities for a longer duration but would minimize the potential for an acute one-time impact on water resources.

Soils exposed during construction would be re-vegetated or otherwise stabilized following construction completion, at which time construction-related erosion and sedimentation would cease. In areas where tree and vegetation removal would occur, the areas would be revegetated using native grasses, shrubs, trees, or other plants where needed for soil stabilization and a natural appearance.

The proposed Plan would likely increase the volume of stormwater runoff generated at the Park overall and could generate stormwater runoff impacts at specific locations that were previously not impacted. Stormwater runoff would be limited through design or the use of BMPs. The proposed Plan's stormwater management improvements would also address localized flooding concerns, manage stormwater runoff more effectively, and improve water quality.

Depending on the extent of the future development footprint within the buildable zones, development could be required to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow as required by the Energy Independence and Security Act of 2007 (EISA). According to the U.S. Environmental Protection Agency's *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (2009), "the intention of EISA Section 438 is to preserve or restore the hydrology of the site during the development or redevelopment process. To be more specific, this requirement is intended to ensure that aquatic biota, stream channel stability, and historical aquifer recharge rates of receiving waters are not negatively impacted by changes in runoff temperature, volumes, durations and rates resulting from federal projects." Development within the buildable zones would be designed to a predevelopment hydrology standard using this Technical Guidance document.

Proposed Plan actions involving one acre or more of earth disturbance would obtain coverage under MDE's General Permit for Stormwater Associated with Construction Activity (General Permit), which would require the preparation of an erosion/sediment control plan. Approval of a stormwater management plan through MDE would be required for land disturbance of 5,000 square feet or more. Approval of an erosion/sediment control plan through MDE would be required for land disturbance of 5,000 square feet or more and/or 100 cubic yards or more of excavation. Adherence to the requirements of the permit, erosion/sediment control, and stormwater management plans would minimize construction-related impacts on water resources. Therefore, the NPS has dismissed *water resources* from further analysis.

**Wildlife and wildlife habitat.** The Park offers habitat for wildlife in a suburban setting that contains a mix of developed and natural areas. The Minnehaha Creek and its surrounding sloping forested hillsides, and patches of wooded area and maintained lawns throughout the Park provide wildlife habitat.

Wildlife typically observed within the Park includes mice, moles, opossums, gray squirrels, rats, chipmunks, red foxes, white-tailed deer, black rat snakes, garter snakes, five-lined skinks, bats, and snapping turtles. Bird species that may be present at various times of the year include rock dove (*Columba livia*), mourning dove (*Zenaidura macroura*), barred owl (*Strix varia*), pileated woodpeckers (*Dryocopus pileatus*), downy woodpeckers (*Dryobates pubescens*), American crow (*Corvus brachyrhynchos*), house wrens (*Troglodytes aedon*), Carolina chickadee (*Poecile carolinensis*), northern mockingbird (*Mimus polyglottos*), northern cardinal (*Cardinalis cardinalis*), house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), American goldfinch (*Spinus tristis*), and European starling (*Sturnus vulgaris*) (NPS 2001, 2011).

According to a macroinvertebrate sampling of Minnehaha Creek by the NPS in 2014, a total of 28 taxa were found. The most common taxa included: *Naididae* (a family of clitellate oligochaete worm), *Orthocladius* (genus of non-biting midges in the subfamily Orthocladiinae of the bloodworm family Chironomidae), *Gammarus* (genus of amphipod crustaceans), *Enchytraeidae*, and *Simulium* (a genus of blackflies) (Northrup 2015).

The proposed Plan identifies buildable zones (i.e., potential areas for future development) within the Park, which range in location from developed areas with little tree cover (e.g., the Maintenance Yard buildable zone) to more natural areas with extensive tree cover (e.g., the

Minnehaha Woodland buildable zone). Future development within the zones could range from uncovered, hardscape areas to outdoor pavilions to structures with conditioned, interior spaces. Further design development within the buildable zones is needed following the EA. Design and construction work associated with individual development projects would occur in the future. All future development within these zones would comply with local, state, and federal regulations and would be sensitive to the natural contexts of Glen Echo Park and its surroundings.

Construction activities associated with the proposed buildable zones could have the potential to damage or remove vegetation or other features that provide habitat for common species of animal wildlife or displace or destroy specimens of common animal wildlife species. However, it is anticipated that many of the displaced specimens would relocate to similar areas of habitat during construction and return to the disturbed areas as construction activities cease and vegetation and other features providing habitat regenerates or are restored. In the long-term, some wildlife species may experience a decline and loss of habitat and some species may experience disruption through the introduction of visitor uses in previously undisturbed areas. NPS biologists or other qualified personnel would develop applicable BMPs to minimize impacts on animal wildlife. The inadvertent destruction of individual specimens of wildlife during construction activities is not anticipated to result in population-level impacts on any particular species. The implementation of the proposed Plan over the long term would further minimize impacts by concentrating construction activities in smaller areas. However, the long-term implementation period may also extend and amplify the adverse impacts on wildlife and habitat due to the extended presence of construction material and noise. Overall, in the long term, impacts on common species of wildlife in the Park would be minimal. Therefore, the NPS has dismissed *wildlife and wildlife habitat* from further analysis.

**Threatened and endangered species.** In accordance with Section 7 of the Endangered Species Act, the NPS consulted with the U.S. Fish and Wildlife Service (USFWS) via their online IPaC (Information for Planning and Consultation) system to determine the potential for federally-listed protected species to be present at the Park. The consultation indicated the potential for the federally endangered Northern Long-eared Bat (*Myotis septentrionalis*), the proposed endangered Tricolored Bat (*Perimyotis subflavus*), and the proposed threatened Monarch Butterfly (*Danaus plexippus*).

Suitable summer habitat for northern long-eared bats and tricolored bats consists of a variety of wooded/forested habitats containing potential roosts which are live trees or snags that are greater than three inches diameter at breast height (DBH) with characteristic of exfoliating bark, cracks, crevices, and/or cavities. Though these species prefer forested habitat, individual trees may also be considered suitable habitat if they are within 1,000 feet of forested/wooded habitat and have suitable roost tree characteristics as described previously. Additionally, these species, especially tricolored bats, may roost in human made structures including bridges, culverts, buildings, barns, and bat houses. Unsuitable habitat consists of individual trees that are greater than 1,000 feet from forests/wooded areas, trees in highly developed urban areas, and pure stands of trees less than three-inch DBH with no larger trees mixed in.

As of 2022, Buttercup Scorpionweed (*Phacelia covillei*) was present along the south edge of the Minnehaha Woodland down the steep slope ending at the Clara Barton Parkway (NPS 2023 (July)). This species is listed at the state level as a threatened species according to the Maryland

Department of Natural Resources (DNR) Wildlife & Heritage Service's 2021 list of rare, threatened, and endangered plants of Maryland (DNR 2021).

Based on NPS local knowledge, a small population of Narrow Melicgrass (*Melica mutica*) has also been found at the Park. Although this species is not listed as threatened or endangered at the federal or state level, the species has a state rank (i.e., the rarity of the species in the state) of S3, meaning the species is at moderate risk of extinction or extirpation due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors (DNR 2021).

The proposed Plan identifies buildable zones (i.e., potential areas for future development) within the Park, which range in location from developed areas with little tree cover (e.g., the Maintenance Yard buildable zone) to more natural areas with extensive tree cover (e.g., the Minnehaha Woodland buildable zone). Further design development within the buildable zones is needed following the EA. Design and construction work associated with individual development projects would occur in the future.

During future design development of the buildable zones, the NPS would continue to consult with the USFWS and DNR to identify activities within the buildable zones that would have the potential to impact federally and state listed threatened and endangered species and identify applicable minimization or mitigation measures including potential time-of-year restriction on tree clearing between April 1 through November 15 in any year. Therefore, the NPS has dismissed *threatened and endangered species* from further analysis.

## CHAPTER 2: ALTERNATIVES

This section of the EA describes the no-action alternative and the proposed action for the Glen Echo Park Management Plan Amendment. CEQ regulations for implementation of the NEPA process call for the alternatives considered in a document to include a no-action alternative. The description and evaluation of this alternative provides a baseline to which action alternatives can be compared. This EA evaluates two alternatives: “Alternative A: No Action” and “Alternative B: Management Plan Amendment (Proposed Action).” The elements of these alternatives are described in the following sections. Impacts associated with the alternatives are described in Chapter 3: Affected Environment and Environmental Consequences.

### ALTERNATIVE A: NO ACTION

Under the no action alternative, no new development (e.g., buildings, structures, and associated pathways or other impervious paving) would occur within the Park. Existing buildings and structures would be retained in their current locations. The 2001 Plan’s management zones would continue to “provide guidance and a framework for the future types of activities, treatment of resources, treatment of existing facilities, options for new facilities, and the visitor experience” (**Figure 3**) (NPS 2001: 31). Pedestrian access from the Park’s visitor parking lots to the Park core and pedestrian routes within the Park would continue to not comply with the Architectural Barriers Act Accessibility Standards (ABAAS) and/or Public Rights-of-Way Accessibility Guidelines (PROWAG) compliant. Existing localized flooding, erosion, and stormwater management infrastructure issues would continue in areas throughout the Park.

### Facilities

No existing buildings or structures within the Park would be removed or relocated. The Park’s six yurts, pottery kiln and shed, and restroom building adjacent to the Carousel would all be retained in their current locations. Additionally, the following buildings, structures, pathways, wooded areas, and open spaces would be retained in their current locations (**Figure 4** and **Figure 5**):

- The **Crystal Pool** area, located between the Spanish Ballroom and the Minnehaha Creek woodland where the existing Crystal Pool structures and playground are situated, would be retained.
- The **Yurts area**, located in the woodland area south of the Aquarium and west of the Yellow Barn building, would be retained.
- The open area in the **Southeast Corner along Tulane Avenue**, south of the Arcade Building, would be retained.
- The **Maintenance Yard**, located southeast of the Spanish Ballroom, would be retained.
- The **Tulane Avenue Field**, an open area to the south of Tulane Avenue and adjacent to the existing maintenance yard, would be retained.
- The **Minnehaha Woodland** would be retained, with the existing footbridge connecting the main parking lot to Glen Echo Park continuing to serve as the main visitor entrance.

### Circulation and Accessibility

Pedestrian access routes to and within the Park that currently do not comply with ABAAS and/or PROWAG would continue to not comply with ABAAS and/or PROWAG. Pedestrian access to

Glen Echo Park from the main parking lot would continue via the existing non-ABAAS compliant route. The existing route connects the main parking lot to the Park via a footbridge over Minnehaha Creek and a steeply sloped and uneven asphalt path. This entrance would continue to serve as the primary visitor entrance to the Park. The historic park entrance along MacArthur Boulevard would continue to serve as a secondary pedestrian entrance. Pedestrian routes providing internal circulation within the Park that are currently non-ABAAS compliant would remain non-ABAAS compliant.

Pedestrians dropped off at the existing bus stop along MacArthur Boulevard would either proceed toward the Park via the pedestrian route along MacArthur Boulevard, cross the permit parking lot, and enter via the historic park entrance, or take the pedestrian route at the corner of MacArthur Boulevard and Oxford Road leading directly into the Park.

The main parking lot shared with the Clara Barton National Historic Site and the permit parking lot would continue to provide visitor vehicular access. Any parking spaces intended to be accessible in the main lot or permit parking lot would continue to be non-ABAAS and/or non-PROWAG compliant.

### **Stormwater Management**

Existing localized flooding, erosion, and stormwater management infrastructure issues would persist in the Park without mitigation or improvement (**Figure 6**).

**Localized flooding** refers to puddles/standing water in specific areas where drainage is insufficient or obstructed. Localized flooding would continue to occur:

- At the entrance area of the Glassblowing Studio
- Within the woodlands in the northern section of the yurt area
- Between the Carousel and picnic grove
- Between the Bumper Car Pavilion and Cuddle Up Pavilion
- In the vegetated area west of the Hall of Mirrors Dance Studio
- In the area near the southeast corner of the Arcade Building
- At the corner of Oberlin Avenue and Bowdoin Street

**Localized erosion** occurs when stormwater runoff wears away the ground in a specific area, usually because the ground's slope or another factor is causing water to flow too strongly or too frequently there. This results in soil or other ground surface materials washing away. Localized erosion would continue to occur:

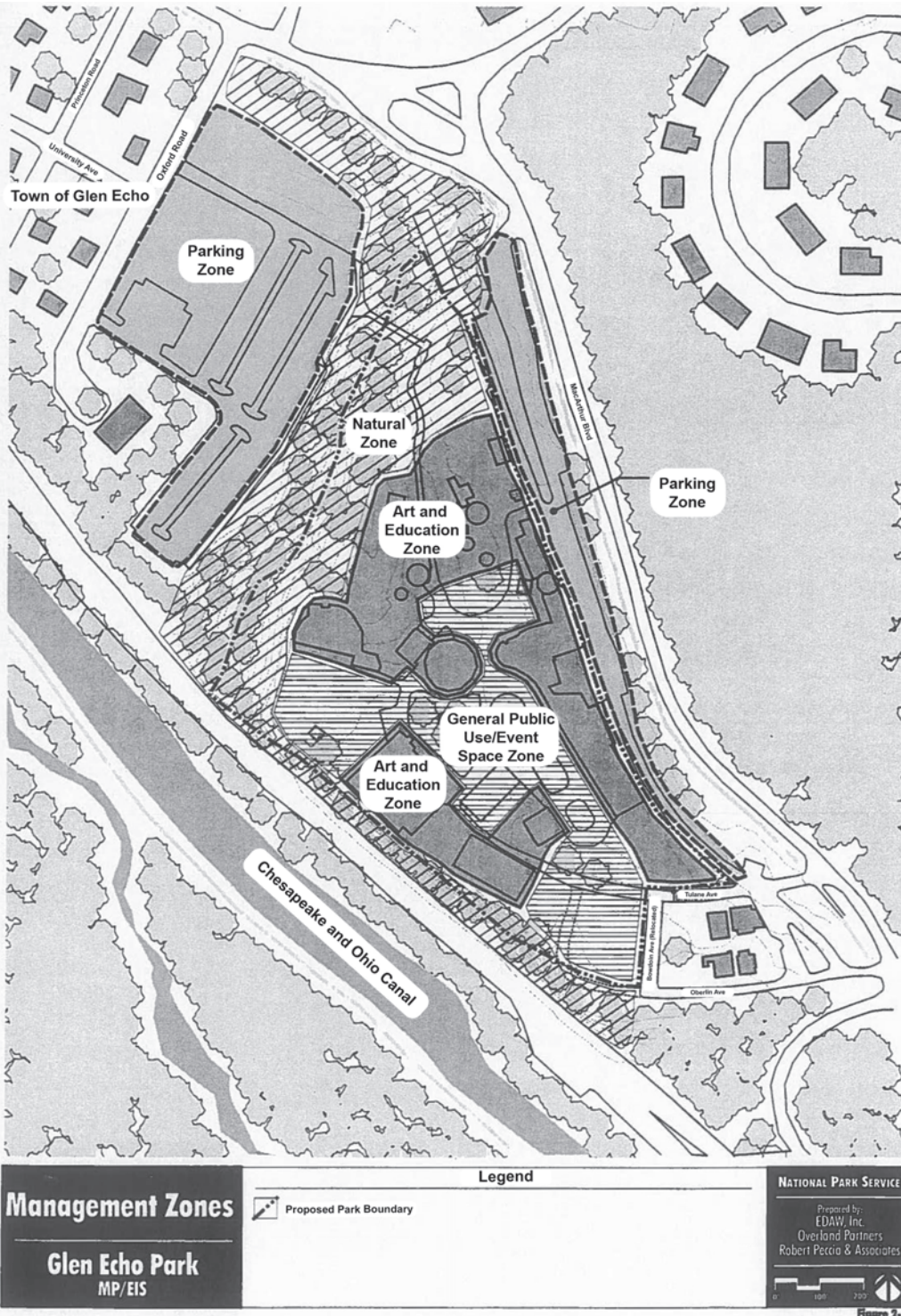
- Within the Minnehaha Woodland, south of the footbridge on the Park side
- Between the Tulane Avenue and Bowdoin Street intersection and the open area near the southwest corner of the Arcade Building

**Storm infrastructure challenges** at the Park include, but are not limited to, clogged drains, elevated drains that no longer can drain water, and frequently full manholes that are pumped after any rain event. Storm infrastructure challenges would continue to occur:

- At the entrance area of the Glassblowing Studio

- Along the pedestrian route beginning east of the Candy Corner, continuing eastward along the walkway adjacent to the Carousel, and extending to the restroom building
- Between the Hall of Mirrors Dance Studio and maintenance yard
- At the corner of Oberlin Avenue and Bowdoin Street

Figure 3: 2001 Plan Management Zones



**Figure 4: Existing Conditions**



**Crystal Pool area**  
*View looking west at the Crystal Pool remnants*



**Crystal Pool area**  
*View looking southwest at the playground and lawn field*



**Yurts area**  
*View looking southwest*



**Southeast Corner along Tulane Avenue**  
*View looking west with the Arcade Building on the right*



**Maintenance Yard**  
*View looking southeast from the Spanish Ballroom*



**Tulane Avenue Field**  
*View looking south*

**Figure 5: Existing Conditions – Minnehaha Woodland**



**Footbridge over Minnehaha Creek**  
*View looking northwest*



**Minnehaha Creek**  
*View looking south from the footbridge*

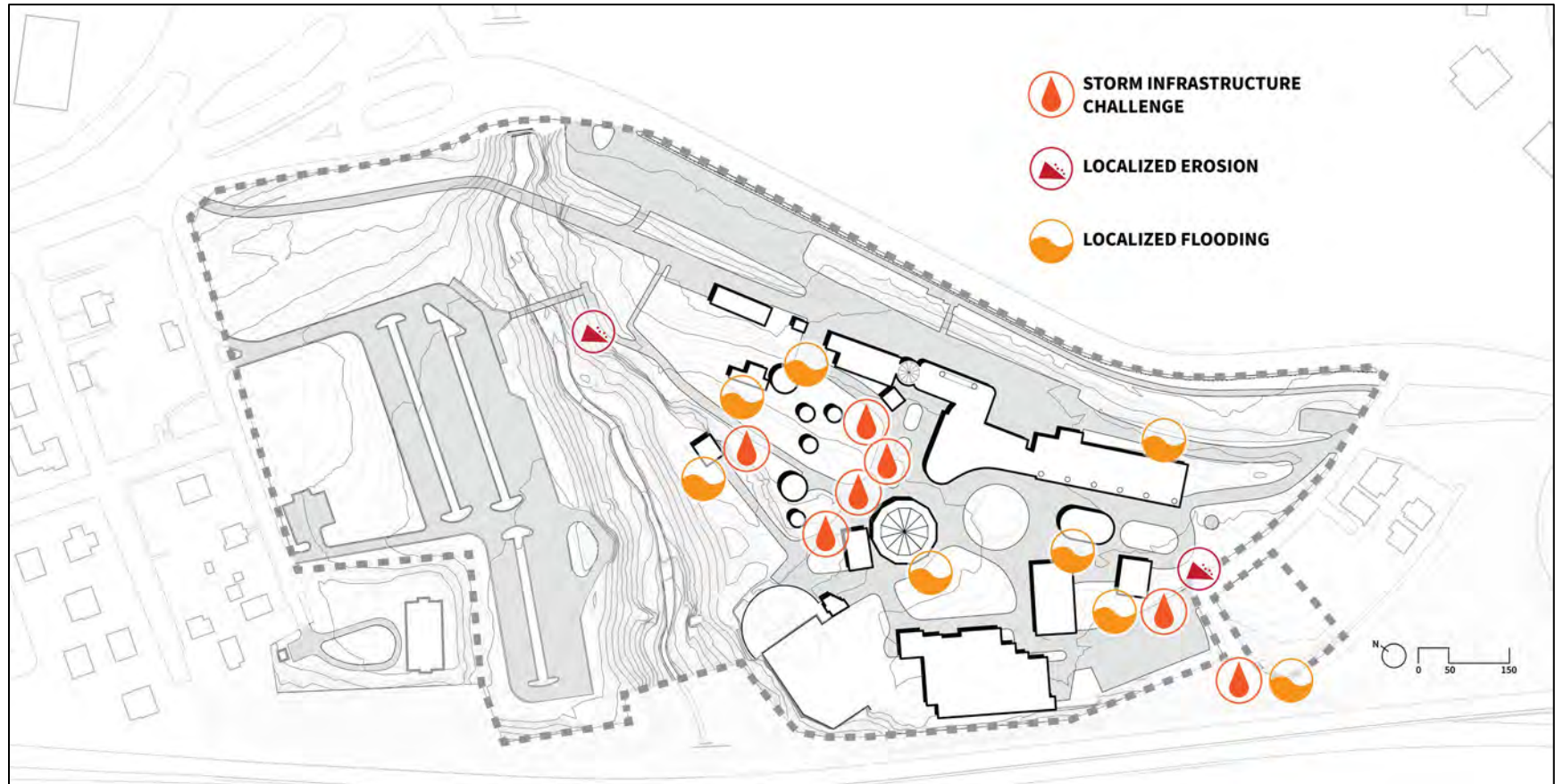


**Overlook on the west side of Minnehaha Creek**  
*View looking south*



**Minnehaha woodland**  
*View looking southeast from the overlook*

**Figure 6: Existing Stormwater Management Issues**



## **ALTERNATIVE B: MANAGEMENT PLAN AMENDMENT (PROPOSED ACTION)**

The proposed Management Plan Amendment (Plan) would identify areas within the Park for new development (e.g., buildings, structures, and associated pathways or other impervious surfaces). Some existing buildings and structures would be removed. Pedestrian access routes would be improved to comply with the ABA, Section 504 of the Rehabilitation Act, and/or PROWAG (where jurisdictionally applicable). Stormwater management improvements would also be made throughout the site.

### **Facilities**

#### Building and Structure Removal

The following existing buildings and structures would be removed: the six yurts, pottery kiln and shed, and restroom building adjacent to the Carousel (**Figure 7**). The removal of these buildings and structures would reclaim open space at the center of the Park and provide areas for future centralized development. This action would allow the Park to continue operating without disruption while expanding its programmatic offerings. It would allow flexible space for new arts and cultural programming, special events, and future interpretive initiatives related to history and the environment. In addition, the removal would support improvements to the overall visitor experience by enabling expanded amenities and enhancing the Park's physical layout for better accessibility and use.

#### Buildable Zones

The Plan would identify buildable zones for potential future development to support the need for expanded programming and visitor services at Glen Echo Park. The locations of these zones are depicted in **Figure 8**.

Future development within the zones could range from uncovered, hardscape areas to outdoor pavilions to structures or buildings with conditioned, interior spaces. The buildable zones also identify where future buildings may be appropriate and are intentionally oversized to accommodate buildings and related features such as accessible pathways, plazas, and impervious surfaces. The buildable zones do not represent final building footprints. Future design projects would determine specific building locations, square footage, massing, height, and architectural style. The size and scale of future development within these zones would be considered together with rehabilitation of existing buildings in a future planning phase. All future development within these zones would comply with local, state, and federal regulations and would be sensitive to the historic and natural contexts of Glen Echo Park and its surroundings. Future buildings may also require separate NEPA and Section 106 compliance.

The buildable zones represent the minimum change in development necessary to support the Park's growth while protecting its core character and open spaces. Future design efforts would explore how best to allocate space to serve various cultural, arts, and event-based uses. The buildable zones would also offer opportunities to integrate new interpretive elements focused on the Civil Rights history of the site.

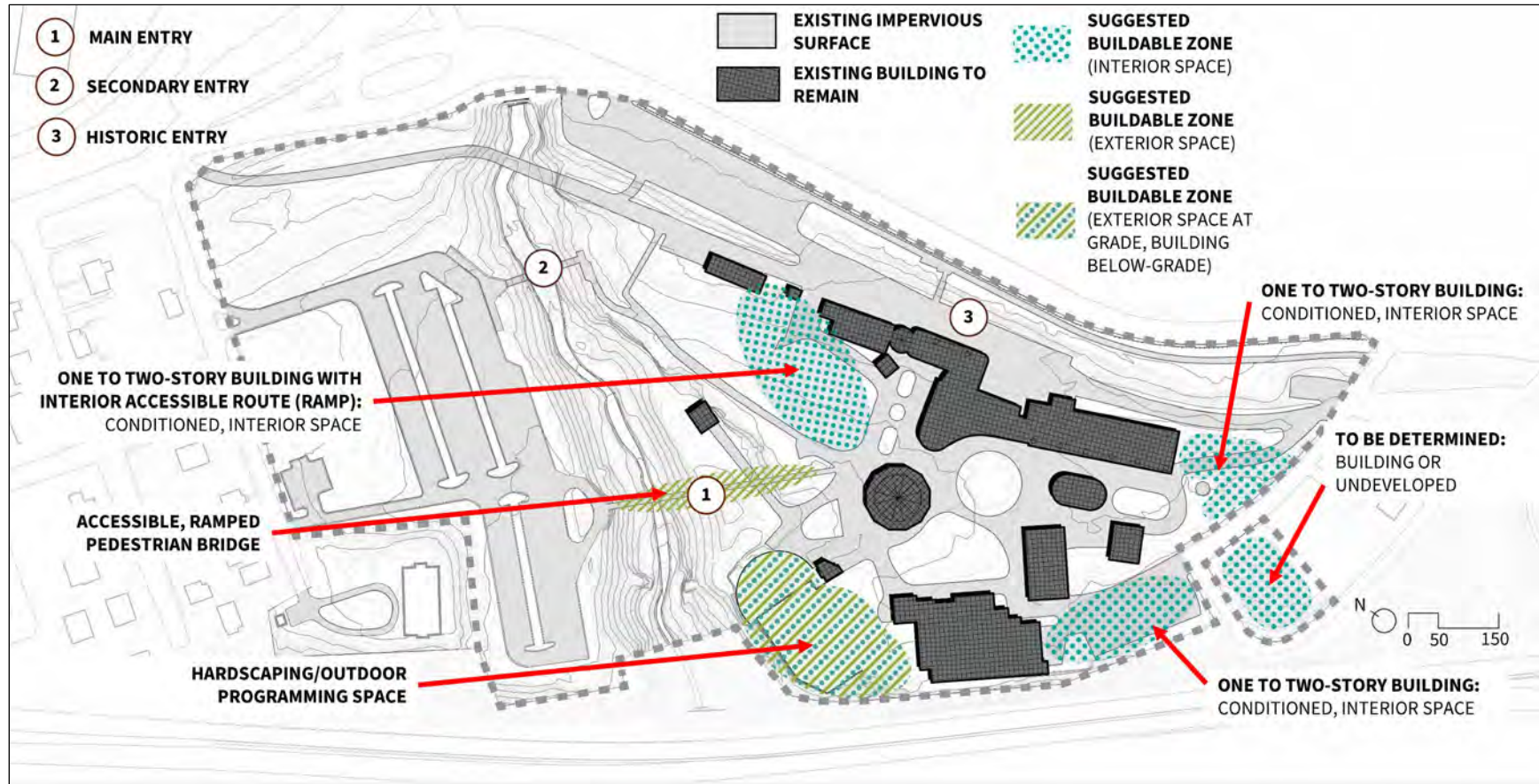
The buildable zones would include the following areas:

- The **Crystal Pool buildable zone** is located between the Spanish Ballroom and the Minnehaha Creek woodland, where the existing Crystal Pool structures and playground are situated. This zone would be treated to accommodate a subsurface building within the existing below-grade cavity, with exterior hardscaping/outdoor programming space at-grade that references the historic level changes and spatial organization of the site. Future planning and design phases would consider that this zone is adjacent to the designated “natural zone” in the 2001 Plan (see **Figure 3**), meaning that development would be minimized in this area to preserve the woodland’s natural character.
- The **Yurts buildable zone** is located in the woodland area south of the Aquarium and west of the Yellow Barn building, where the existing yurts and pottery kiln and shed are located. This zone would support new development of a one- to two-story building with conditioned, interior space and an interior accessible route, to house displaced and/or additional programming and facility needs. Future planning and design phases would consider that a portion of this zone overlaps the designated “natural zone” in the 2001 Plan (see **Figure 3**), meaning that development would be minimized in this area to preserve the woodland’s natural character.
- The **Southeast Corner buildable zone along Tulane Avenue** is located to the south of the Arcade Building. This zone would support new development of a one- to two-story building with conditioned, interior space to accommodate additional programming and facility needs.
- The **Maintenance Yard buildable zone** is located southeast of the Spanish Ballroom where the existing maintenance yard is situated. This zone would support development of a one- to two-story building with conditioned, interior space to accommodate additional programming and facility needs.
- The **Tulane Avenue Field buildable zone** is located south of Tulane Avenue and adjacent to the existing maintenance yard. This zone would be available to accommodate a building within interior space, or remain undeveloped, depending on needs identified during future planning processes.
- The **Minnehaha Woodland buildable zone** is located within the Minnehaha woodland and would include a proposed accessible and ramped pedestrian bridge across Minnehaha Creek, providing a new entrance from the Clara Barton National Historic Site and the main parking lot. Designated as a “natural zone” in the 2001 Plan, any development in this area would be carefully planned to minimize ecological impact and preserve the woodland’s natural character.

**Figure 7: Alternative B – Proposed Building and Structure Removal**



**Figure 8: Alternative B – Proposed Buildable Zones**



## Circulation and Accessibility

The Plan would implement accessibility improvements throughout the Park to provide equal physical and programmatic access. These improvements would comply fully with the ABA, Section 504 of the Rehabilitation Act, and/or PROWAG (where jurisdictionally applicable). The proposed accessible routes, parking areas, bus drop-off zone for school buses and tour buses, and steep slopes along accessible routed conditions are indicated in **Figure 9**.

The Plan would improve existing pedestrian routes and create new accessible pathways within the Park. The existing main parking lot would be modified to accommodate designated accessible parking spaces and an accessible bus drop-off area for school buses and tour buses. Additional accessible parking spaces would be established within the existing permit parking lot along MacArthur Boulevard.

Where existing pedestrian routes encounter steep slopes, regrading would be undertaken where technically feasible to achieve compliant sloped walkways. In locations where regrading is not possible, ramps would be constructed with handrails, guardrails, and landings as required to meet accessibility standards. These improvements would address current deficiencies and support a more inclusive and welcoming experience for all visitors.

The Plan does not preclude future coordination between NPS, GEPPAC, and Montgomery County regarding potential improvements to physical connections between the Park and the bus stop and bikeway facilities along MacArthur Boulevard, or public transportation operating hours to better align with park program times.

## Stormwater Management

The Plan would incorporate stormwater management improvements throughout the site, as indicated in **Figure 10** as potential opportunity areas to be designed for each site related plan. These improvements would include stormwater infrastructure upgrades, vegetated stormwater interventions, and targeted solutions to address localized flooding concerns. Potential improvements could include, but are not limited to, storm sewer pipe and inlet installations, underground stormwater detention, bioretentions, vegetated swales, manufactured treatment devices, green roofs, infiltration practices, and rainwater harvesting.

A variety of strategies would be explored to meet or exceed applicable local, state, and federal regulatory requirements. Improvements would be designed to manage runoff more effectively and improve water quality.

**Figure 9: Alternative B – Proposed Accessibility Improvements**

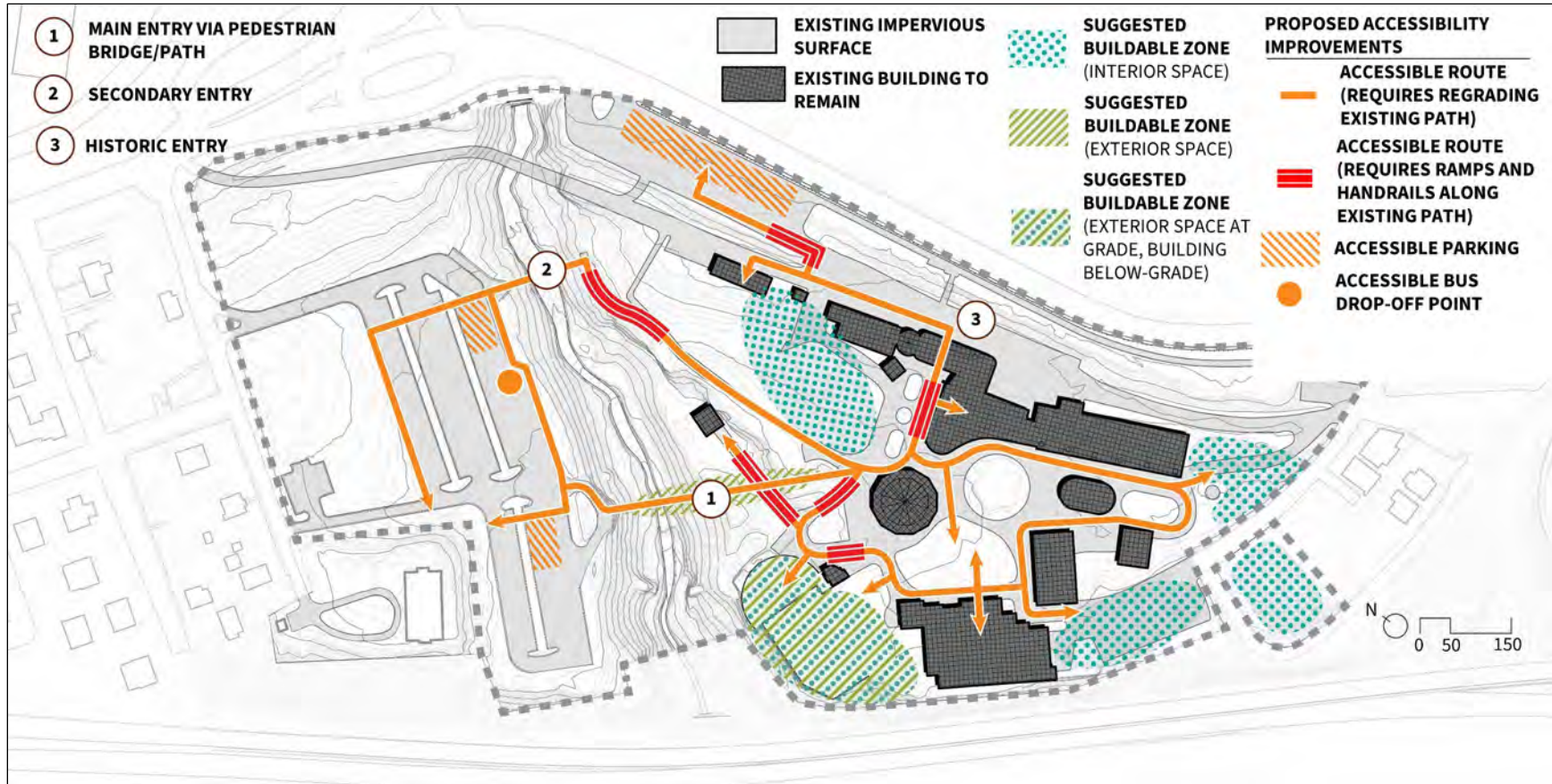
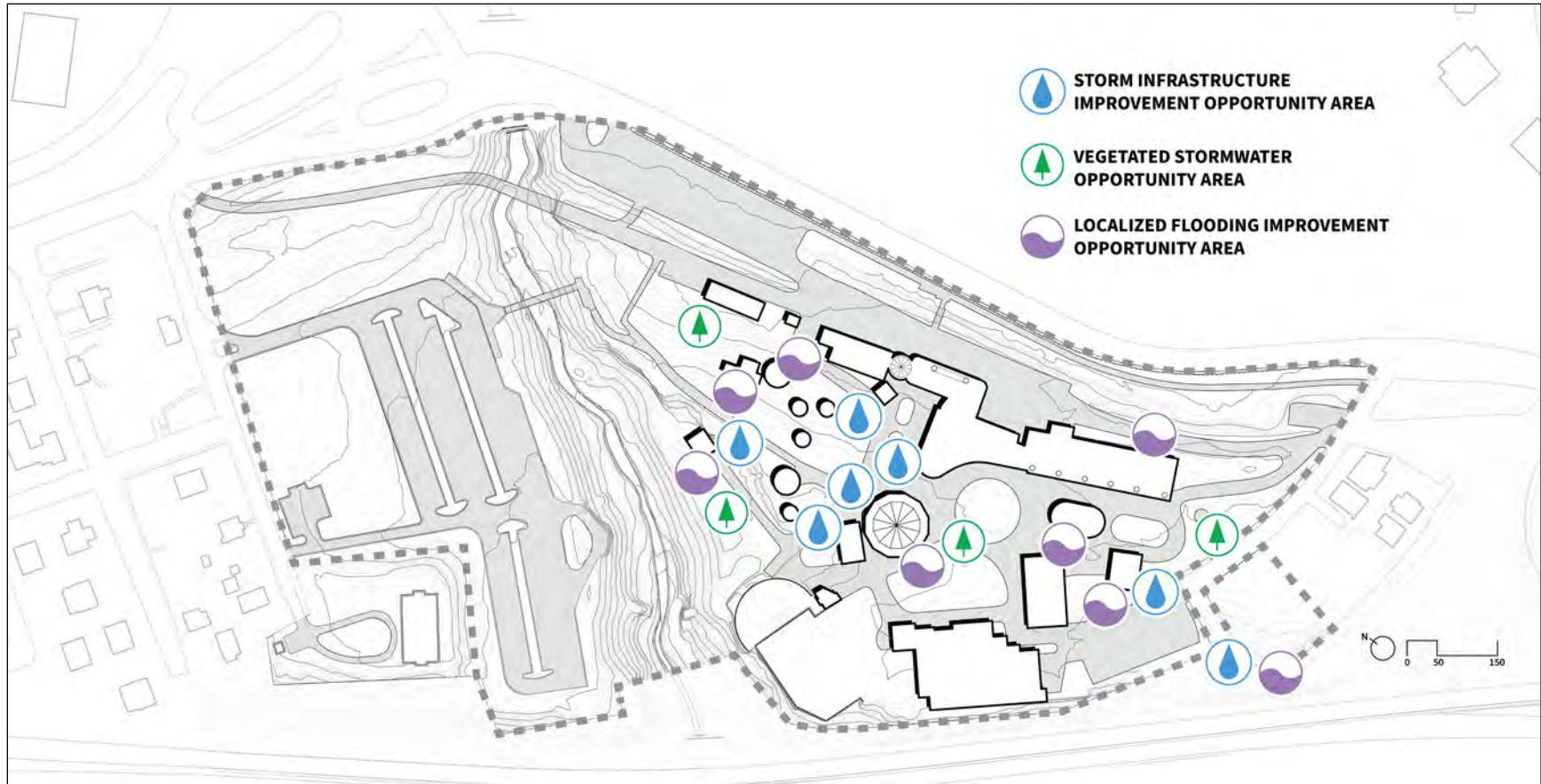


Figure 10: Alternative B – Proposed Stormwater Management Improvements



## **MITIGATION MEASURES OF THE PROPOSED ACTION**

Mitigation, according to NEPA (40 CFR 1508.20), includes the avoidance or minimization of impacts to resources. Mitigation measures would be implemented under the proposed action, whenever feasible, for resource protection and to minimize disruption to visitors. The exact mitigation measures would depend upon the individual project designs and plan approvals by relevant agencies. The following mitigation measures are proposed to reduce impacts as a result of the proposed action. Mitigation measures may be mandatory, such as those measures that are required by law, special conditions of permits or authorizations, or by NPS policy. Some measures are voluntary, including those measures that are not required, but would be implemented into the final design as a best practice to reduce resource impacts or visitor disruption.

### **Historic Districts, Buildings, and Structures**

Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the NHPA compliance process separately to avoid, minimize, or mitigate impacts on historic districts, buildings, and structures. Consultation with the Maryland Historical Trust (MHT) (i.e., Maryland's State Historic Preservation Office) and relevant tribes would occur as specific projects are designed and implemented.

### **Cultural Landscapes**

Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the NHPA compliance process separately to avoid, minimize, or mitigate impacts on cultural landscapes. Consultation with the MHT and relevant tribes would occur as specific projects are designed and implemented.

### **Vegetation**

The 2023 tree survey would be updated during detailed design to document existing individual trees within the Park, including any specimen trees, and to identify opportunities to avoid or minimize tree removal. In addition, development projects would be designed in accordance with the Maryland's Forest Conservation Act (FCA) (Natural Resources Article §§ 5-1601–5-1613) that integrates forest conservation into the development review process. For projects on 40,000 square feet or more that apply for a subdivision, grading, or sediment control permit, the FCA requires (i) a Forest Stand Delineation (FSD) to identify and prioritize forest resources and (ii) a Forest Conservation Plan (FCP) to retain, reforest, or afforest as needed.

Design objectives would retain existing mature trees to the greatest extent possible. Protective measures, such as fencing, would be installed around the critical root zone of trees planned for protection during construction. If root impacts are unavoidable, root pruning techniques along with other strategies would be used to best maintain tree health and longevity. Mature trees that cannot be retained in place would be replaced in kind or with a compatible substitution within site landscaping to the extent feasible.

Construction contractors would be required to clean vehicles and equipment offsite, and to use weed-free construction materials, to prevent the inadvertent introduction of invasive plant seeds, propagules, and other weed seeds into the Park. Soils exposed during construction would be re-vegetated or otherwise stabilized following construction completion. In areas where tree and

vegetation removal would occur, the areas would be revegetated using native grasses, shrubs, trees, or other plants where needed for soil stabilization and a natural appearance.

### Visitor Use and Experience

During construction, portions of Glen Echo Park would remain open to visitor access while other areas would be temporarily closed. Pedestrian, bicycle, and vehicle access would be maintained during construction via the use of temporary detours or alternative routes around closed areas. Advanced notice of closures would be provided on the park website and detours would be clearly marked.

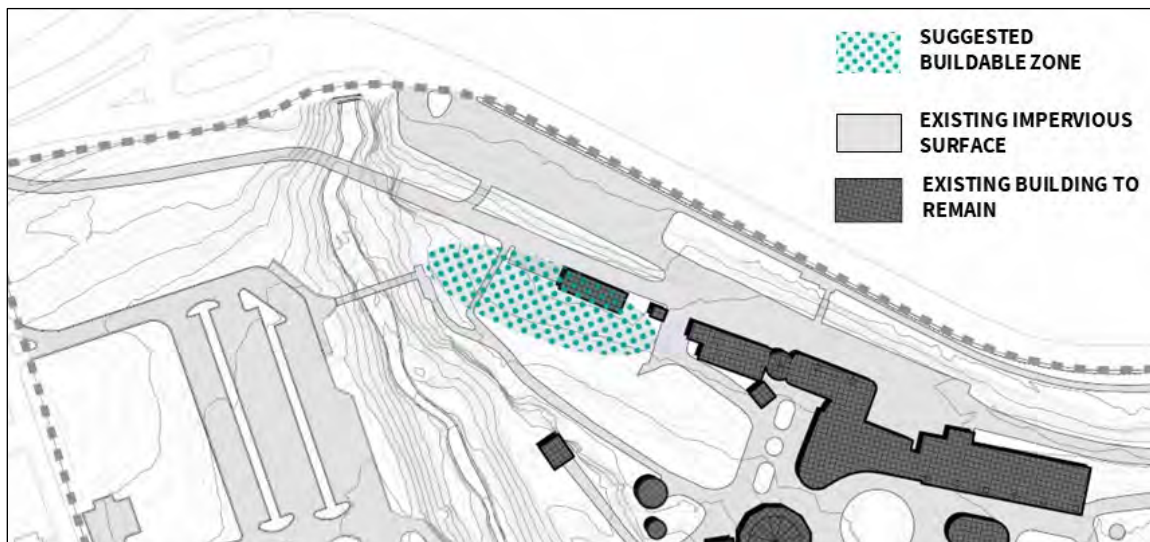
### ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION

The NPS considered multiple alternative options during scoping for the proposed Plan that were ultimately dismissed from further consideration.

### Main Entrance/Aquarium Buildable Zone

The Main Entrance/Aquarium buildable zone alternative (**Figure 11**) would support new development of a one- to two-story building with conditioned, interior space to accommodate additional programming and facility needs. The alternative would necessitate accommodation or alteration of the steep grade from the main visitor entry bridge and would route visitors to the historic entrance. This alternative was dismissed because of the building's potential impact on the woodlands adjacent to the Minnehaha Creek footbridge and path that serves as the primary visitor entrance. Impacts to the woodlands would also result in visual impacts on the visitor arrival experience into the Park.

**Figure 11: Main Entrance/Aquarium Buildable Zone**



**Crystal Pool Buildable Zone – Above-Grade Structure or Building**

A new above-grade structure or building at the Crystal Pool buildable zone alternative would provide conditioned interior space to accommodate additional programming and facility needs. However, an above-grade structure or building would obscure contributing or unevaluated views in the Crystal Pool cultural landscape and further diminish the original topography and level changes of the landscape. For these reasons, this alternative was dismissed from further consideration.

**Yurt Relocation**

Relocation of the yurts to another location within the Park was initially considered. This alternative was dismissed because the structures may not withstand relocation and were originally designed as temporary facilities.

## CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the existing condition of resources retained for analysis in and surrounding the Park that could be impacted by implementing this Plan. These conditions serve as a baseline for analyzing how these resources could be impacted by each alternative. This chapter is organized by resource topic. The project team considers these topics the key issues that could inform the NPS decision on how to proceed with this project.

### HISTORIC PROPERTIES, BUILDINGS AND STRUCTURES

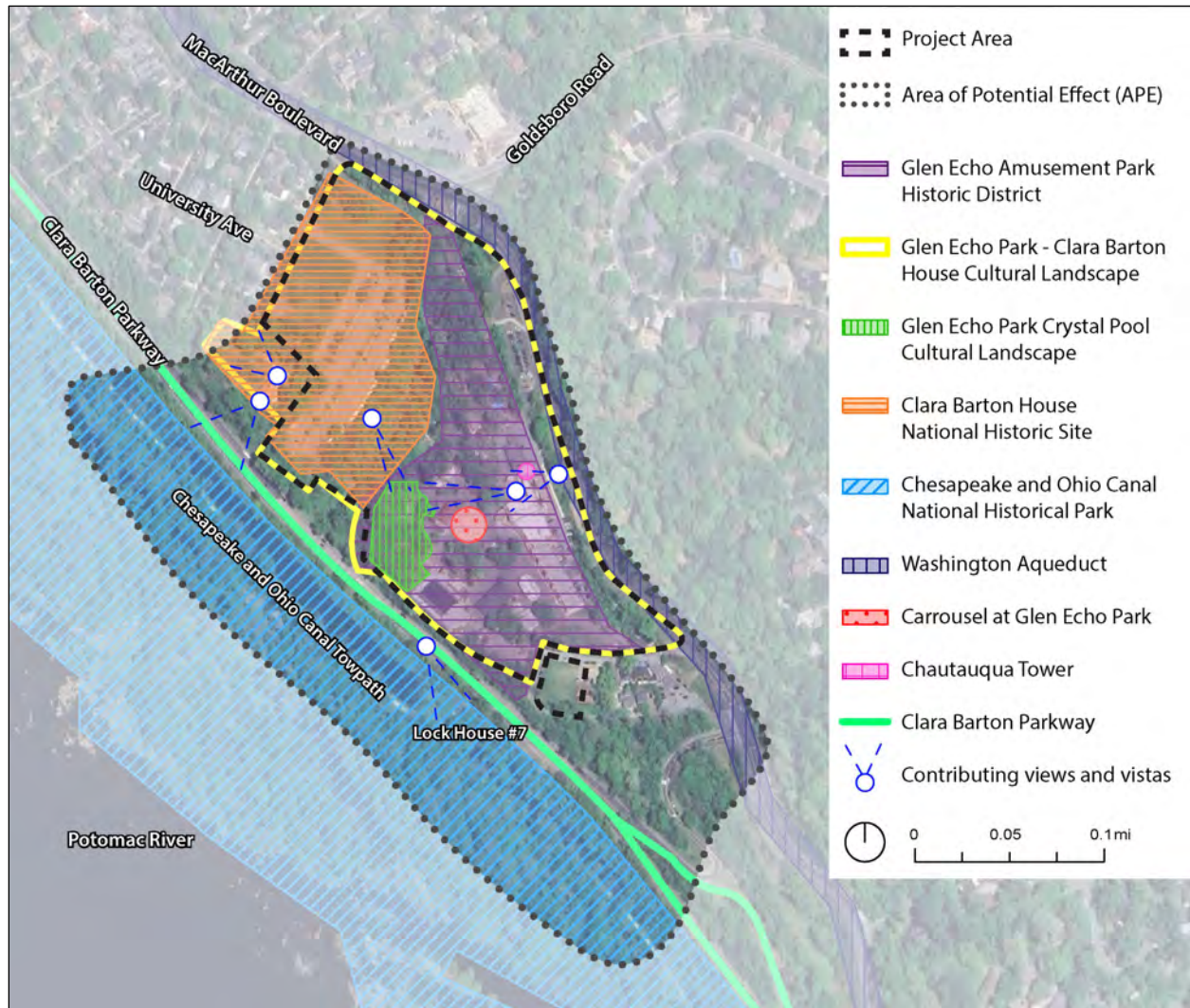
Historic properties were identified within the project's Area of Potential Effect (APE) (**Figure 12**). As defined by 36 CFR 800.16(d), the APE represents "the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." In this EA, the different types of historic properties are addressed by resource type to best describe the impacts of the proposed Plan on the APE. The NPS evaluates historic districts, buildings and structures, cultural landscapes, and archeological resources as different resource categories. This section specifically addresses historic districts, buildings, and structures.

#### Affected Environment

The NPS identified several historic properties within the APE, including historic districts and individually listed historic properties that have been listed in the National Register of Historic Places (NRHP). Historic properties within the APE include the following:

- Glen Echo Amusement Park Historic District
- Chautauqua Tower
- Carousel at Glen Echo Park
- Clara Barton House National Historic Site
- Chesapeake and Ohio Canal National Historical Park Historic District
- Washington Aqueduct
- George Washington Memorial Parkway (including the Clara Barton Parkway) Historic District

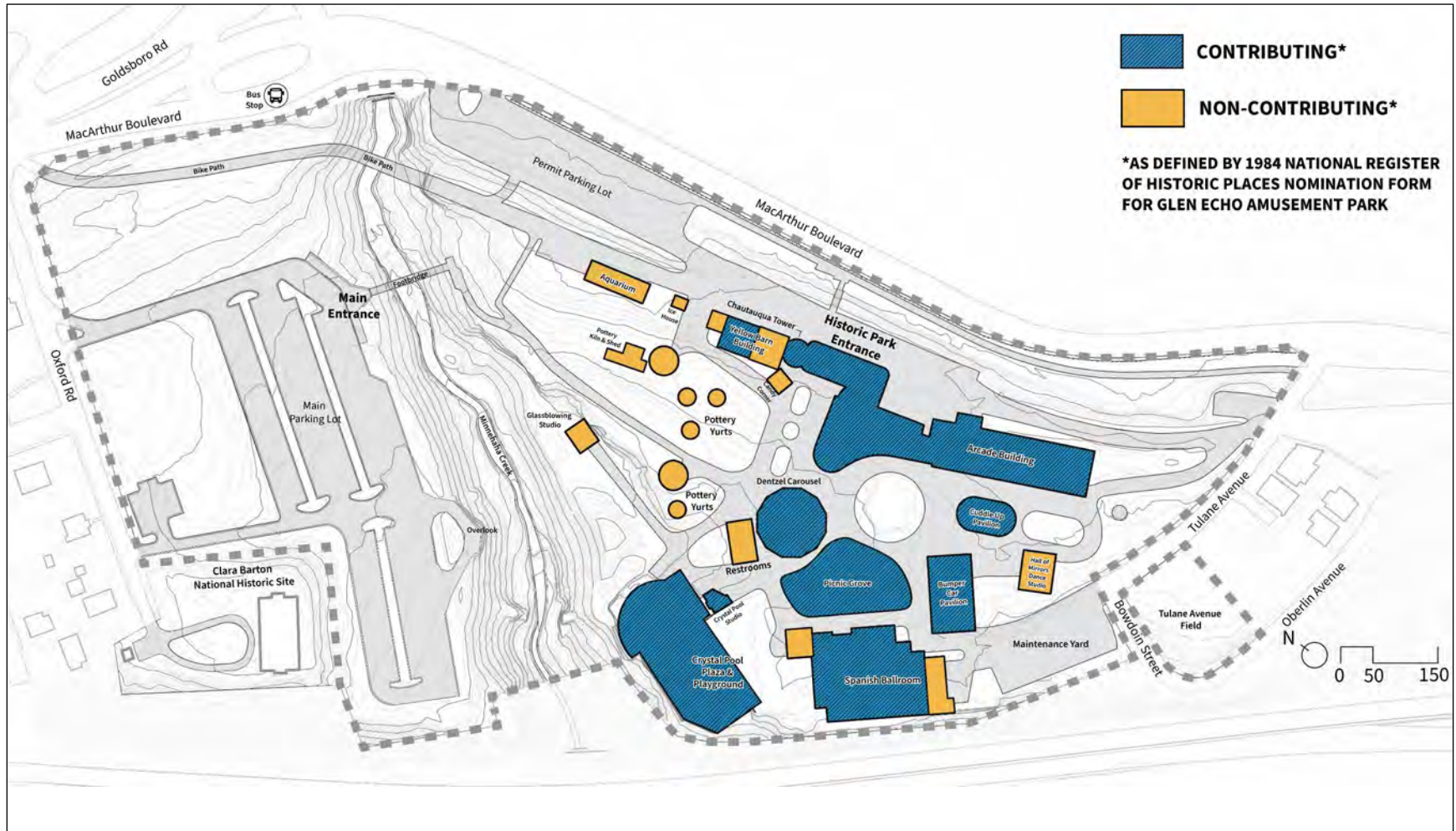
**Figure 12: Area of Potential Effect**



Glen Echo Amusement Park Historic District

The Glen Echo Amusement Park was listed as an historic district in the NRHP in 1984. The Park is significant “as the site of the late nineteenth century Chautauqua movement at Glen Echo, Maryland; as a rare surviving regional example of an early twentieth century amusement park of architectural and historical significance and as a major commercial and recreational facility for area residents and visitors from its establishment in 1899 on the site of the short-lived Chautauqua until its closing in 1968” (NPS 1984: 7). The park is significant in the areas of architecture, commerce, education, and recreation. The park’s periods of significance include 1891-1892, corresponding to the construction of the Chautauqua Tower, and 1899-1940s, corresponding to the beginning of the founding of the amusement park through its World War II-era heyday. The park contains nine contributing elements: Chautauqua Tower, Carrousel, Bumper Car Pavilion, remnants of the Crystal Pool, Spanish Ballroom, Administration Building (Arcade), Cuddle Up Pavilion, Amusement Park Maintenance Shop (yellow barn), and the Picnic Grove (**Figure 13**) (NPS 1984 and 2011).

Figure 13: Glen Echo Amusement Park – Contributing Elements



### Chautauqua Tower

The Chautauqua Tower was listed in the NRHP in 1980. Constructed in 1891-92, the circular stone tower is significant in the areas of architecture and social/humanitarian as it is the sole intact physical remnant of the late 19<sup>th</sup>-century Chautauqua movement at Glen Echo, MD, and as a local specimen of late-Victorian rustic architecture (NPS 1980b).

### Carousel at Glen Echo Park

The Carousel at Glen Echo Park was listed in the NRHP in 1980. Constructed in 1921 in Philadelphia by one of America's most prominent carousel makers, the carousel is significant in the areas of art, sculpture, and entertainment as an exceptionally fine example of the art of carousel buildings (NPS 1980a).

### Clara Barton House National Historic Site

The Clara Barton National Historic Site was listed in the NRHP in 1966.<sup>3</sup> The approximately 8.59-acre site, which includes the Clara Barton House and surrounding grounds, is significant in the area of social/humanitarian.<sup>4</sup> The property is significant as the home of Clara Barton from 1897 to 1912, with special emphasis on the years 1897-1904 when it was also the executive headquarters for the American Red Cross (NPS 1980c). The Glen Echo Park-Clara Barton House Cultural Landscapes Inventory (CLI) (2011) notes that the NRHP nomination "failed to recognize the house's architectural significance as a criterion for listing, and also raised questions regarding its period of significance....National Park Service Historian Elizabeth Lampl, among others, has since argued that the period of significance should rightly begin in 1891, when the house was built and Clara Barton's association with the building began, and end with her death in 1912 (Lampl 2002: xxi-xxii). Although the nomination pertained to the entirety of the Clara Barton National Historic Site, there was very little discussion of the grounds surrounding the house" (NPS 2011: 18). The inventory and evaluation of the grounds was addressed in the 2011 Glen Echo Park-Clara Barton House Cultural Landscape Inventory and in the 2023 Rehabilitate the Clara Barton National Historic Site Cultural Landscape Report.

### Chesapeake and Ohio Canal National Historical Park Historic District

The Chesapeake and Ohio Canal National Historical Park was listed in the NRHP in 1979, with a boundary expansion in 2015. The park is a linear historic district and cultural landscape that extends from Georgetown in Washington, DC, to Cumberland in western MD. The district encompasses approximately 20,500 acres, of which 7.8 acres are within the APE. The 184.5-mile route of the constructed waterway follows the District of Columbia/MD side of the Potomac River. The historic district is significant under multiple criteria:

---

<sup>3</sup> The Clara Barton National Historic Site was administratively listed in the NRHP in 1966 with passage of the National Historic Preservation Act. The NRHP nomination form for the Clara Barton National Historic Site was accepted by the Keeper of the NRHP in 1980.

<sup>4</sup> The Clara Barton House National Historic Site NRHP nomination form states that "[t]he most severe change in the grounds has been the encroachment of the Glen Echo parking lot at the front. This explains why only a fraction of the 8.59-acre national historic site has sufficient integrity to be included in the National Register." Figure 12 depicts the 8.59-acre national historic site, although only a fraction of the site has sufficient integrity to be included in the NRHP.

- Criterion A for transportation; industry and commerce; military; ethnic heritage; conservation and recreation; agriculture; community development; and recreation.
- Criterion C for engineering; and architecture.
- Criterion D for its prehistoric and historic archeological significance.

The Chesapeake and Ohio Canal features a linear canal prism primarily bordered by a towpath and natural vegetation, with adjacent structures and open lots. The canal's character was primarily utilitarian and rustic, with little ornamental vegetation. Paving was generally packed soil or gravel. The district contains many canal-related resources including a canal prism, towpath, lift locks, dams, bypass flumes, culverts, wasteweirs, and lockhouses. Contributing elements to the historic district present within the APE include the following (NPS 1979, 2015b):

- Canal Prism (portions of Mile 006-007 and Mile 007-008)
- Canal Towpath (portions of Mile 006-007 and Mile 007-008)
- Lock 7
- Bypass flume – Lock 7
- Lockhouse – Lock 7 (No. 5 historically)
- Wasteweir (Lock No. 7 Wasteweir)

**Figure 14: Chesapeake and Ohio Canal National Historical Park Historic District Contributing Elements within the APE**



### Washington Aqueduct

The Washington Aqueduct was listed as a historic structure in the NRHP in 1973. The APE includes portions of the Washington Aqueduct, which is both a contributing resource to the C&O Canal National Historical Park and a National Historic Landmark. The property is significant under the themes of military and transportation. The Washington Aqueduct was built to supply water to Washington, DC. Construction of the aqueduct began in 1853. MacArthur Boulevard was built atop the aqueduct to allow service access for the utility. The aqueduct still supplies water to the city, pulling water from Little Falls and transporting it downstream within the APE (NPS 1973).

### George Washington Memorial Parkway (including the Clara Barton Parkway) Historic District

The George Washington Memorial Parkway was listed as an historic district in the NRHP in 1995 with a nomination update in 2017. The Clara Barton Parkway, a component landscape of the overall George Washington Memorial Parkway, passes through the APE. The Clara Barton Parkway follows a 6.8-mile length of the Potomac River on the MD side, of which approximately 0.4 miles are within the APE. The George Washington Memorial Parkway is a scenic roadway dedicated to commemorating the life of George Washington and preserving the

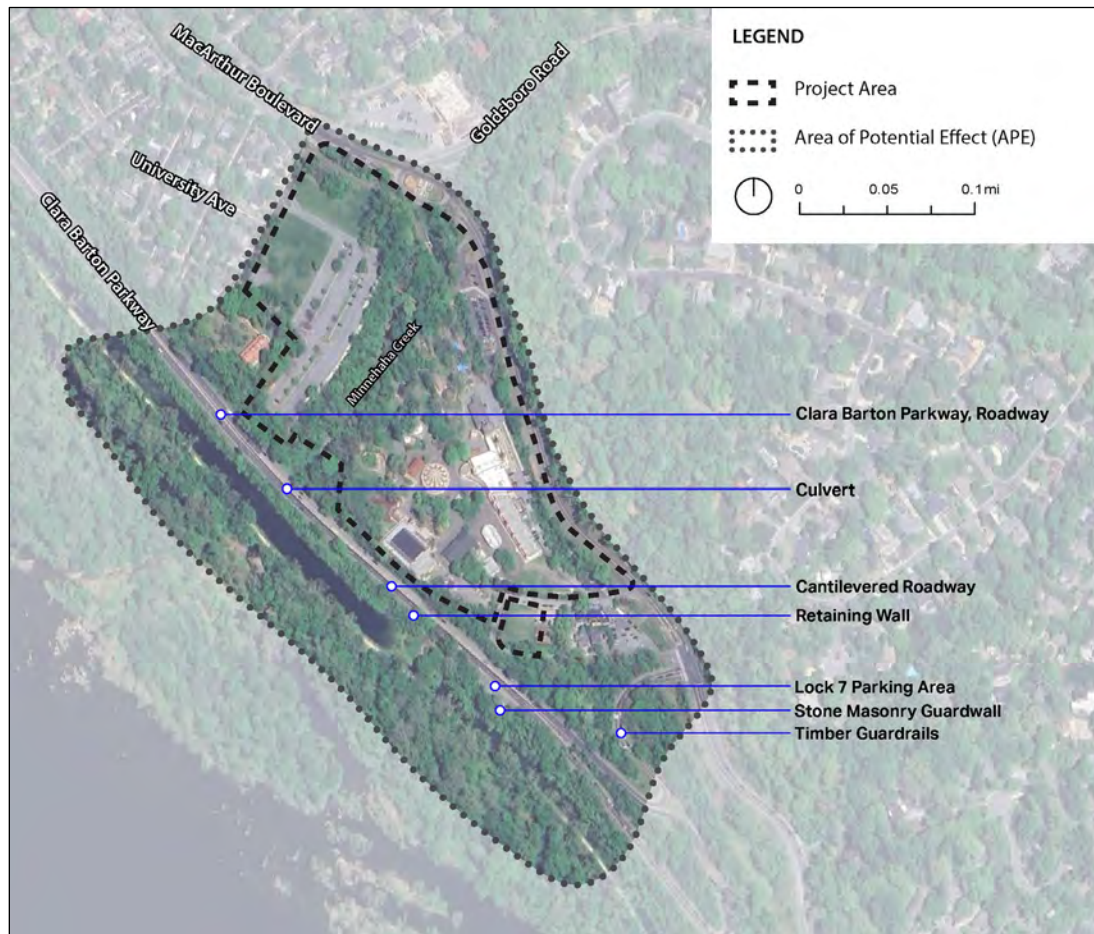
natural and historic character of the Potomac River. The George Washington Memorial Parkway historic district is significant under the following criteria:

- Criterion A for association with broader planning of Washington, DC and commemoration of the life of George Washington
- Criterion B for its association with George Washington
- Criterion C for parkway construction, engineering and transportation innovations, and landscape architecture

The scenic driving experiences provided along the parkway are achieved through the maintenance and protection of a series of natural areas and carefully designed and maintained landscape spaces and features that provide a green backdrop and scenic buffer in the urban corridor. The George Washington Memorial Parkway was designed to offer selected views of the Potomac River Gorge, Chesapeake and Ohio Canal, monuments in Washington, DC, and historic and commemorative features that line the parkway from Mount Vernon to the Great Falls of the Potomac. The Clara Barton Parkway features intimate views of the locks and lock houses of the Chesapeake and Ohio Canal, rather than sweeping views of the Potomac River. Contributing elements to the historic district present within the APE include the following (NPS 2017):

- Clara Barton Parkway, roadway
- Clara Barton Parkway, Cantilever Structure
- Breastwalls and culverts
- Retaining walls
- Stone masonry guardwalls
- All timber guardrails
- Parking area, Lock 7
- Clara Barton Pkwy, Local exits, Glen Echo
- Clara Barton Parkway Cultural Landscape (see the Cultural Landscapes section for description)

**Figure 15: George Washington Memorial Parkway Historic District Contributing Elements within the APE**



Activities beyond the scope of the proposed action but located within or surrounding the APE have the potential to result in adverse impacts on historic districts, buildings, and structures. As development occurs surrounding the Park, contributing features of historic districts, buildings, and structures could be changed directly, such as through physical changes, or indirectly through visual changes.

### Impact Assessment Methodology

Potential impacts on historic districts, buildings, and structures affect the historic character and integrity of the resources. The impacts, direct or indirect, adverse or beneficial, are analyzed in consideration of additional regulations and guidance provided by NEPA, Section 106 of the National Historic Preservation Act (NHPA), the *Secretary of Interior's Standards for the Treatment of Historic Properties*, *Guidelines for the Treatment of Cultural Landscapes*, *NPS Management Policies 2006*, *Director's Order 28*, and other NPS guidance for the treatment of historic properties.

The proposed action does not include any type of design or construction work; those will occur at a later date and will undergo the Section 106 of the NHPA process separately. Therefore, an

Assessment of Effects (AOE) has not been prepared for the proposed action. However, the NPS initiated consultation with the MHT in a letter dated September 20, 2024.

### **Impacts of Alternative A: No Action**

Under the No Action Alternative, no changes would occur to the Glen Echo Amusement Park Historic District, Chautauqua Tower, Carousel at Glen Echo Park, Clara Barton House National Historic Site, Chesapeake and Ohio Canal National Historical Park Historic District, Washington Aqueduct, and George Washington Memorial Parkway (including the Clara Barton Parkway) Historic District. As a result, Alternative A would not result in impacts on historic districts, buildings, and structures.

### **Impacts of Alternative B: Management Plan Amendment**

Alternative B would identify buildings and structures for removal, define potential buildable zones for future development, propose measures to improve circulation and accessibility, and provide additional stormwater management improvements.

Under Alternative B, no physical changes would be made to the following historic resources within the APE:

- Chautauqua Tower
- Carousel at Glen Echo Park
- Clara Barton House National Historic Site
- Chesapeake and Ohio Canal National Historical Park Historic District
- Washington Aqueduct
- George Washington Memorial Parkway (including the Clara Barton Parkway) Historic District

Physical changes to the Glen Echo Amusement Park Historic District would include the demolition of six yurts, the pottery kiln and shed, and the restroom building adjacent to the carousel. All of these buildings are non-contributing resources to the Glen Echo Amusement Park Historic District. These buildings may be reassessed for their eligibility as contributing resources in the future as part of the Section 106 of the NHPA compliance process. Accessibility improvements would improve existing pedestrian routes to meet accessibility standards, and create accessible pathways within the Park, including a new, sloped pedestrian bridge over Minnehaha Creek from the Clara Barton National Historic Site and the main parking lot to the Park. Proposed stormwater management improvements would include stormwater infrastructure upgrades, vegetated stormwater interventions, and localized flooding improvement opportunity areas.

Buildable zones for potential future development to support expanded programming and visitor services. The buildable zones range from uncovered hardscape areas to areas identified as possibly appropriate for future buildings with conditioned, interior spaces. The designs and specifics of improvements within these buildable zones will be designed in future design efforts.

Alternative B would not alter the Glen Echo Amusement Park Historic District's integrity of location, materials, workmanship, and association. The alternative could adversely impact the historic district's integrity of setting, feeling, and design through the introduction of new

buildings within the historic district and resulting changes to the setting, views, and vistas. The degree of impact to these aspects of integrity will depend upon the final design decisions for the new improvements. Further design development within the buildable zones is needed following the EA. Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the NHPA compliance process separately. Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the NHPA compliance process separately. Consultation with the MHT (i.e., Maryland's State Historic Preservation Office (SHPO)) and relevant tribes would occur as specific projects are designed and implemented.

## CULTURAL LANDSCAPES

Cultural landscapes consist of “a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values.”

### Affected Environment

Cultural landscapes that have been previously identified and inventoried by the NPS within the APE include the Glen Echo Park – Clara Barton House, the Crystal Pool, and the Clara Barton Parkway (**Figure 12**). Descriptions of the general boundaries, background, and significance of each cultural landscape are provided in this section.

#### Glen Echo Park-Clara Barton House Cultural Landscape

The Glen Echo Park–Clara Barton House Cultural Landscape spans approximately 22 acres in Montgomery County, MD, 2.5 miles northwest of Washington, DC, along the east side of the Potomac River. It encompasses two adjacent National Park Service (NPS) units: Glen Echo Park, administered by the George Washington Memorial Parkway, and the Clara Barton National Historic Site, an independent NPS holding. Though managed separately, the two sites share a deeply interconnected history. Their shared development and physical continuity led to their joint documentation as a single cultural landscape in the NPS' 2011 Glen Echo Park-Clara Barton House Cultural Landscapes Inventory (CLI).

The cultural landscape's period of significance, 1888–1968, reflects the development and use of the landscape, from the Baltzleys' initial land acquisition and Clara Barton's residency to the rise and eventual closure of the Glen Echo amusement park. Development during the cultural landscape's period of significance began in 1891 when Edward and Edwin Baltzley developed the National Chautauqua of Glen Echo, a planned educational and cultural campus. That same year, they gifted a parcel of land and constructed a home for Clara Barton, founder of the American Red Cross. Barton lived on the property briefly in 1891 and returned in 1897, using the house as both a residence and the national headquarters for the Red Cross until her death in 1912. After the collapse of the Chautauqua, the site transitioned into a regional trolley amusement park, which operated from 1899 until its closure in 1968. The federal government's GSA acquired the Park in 1970 and gave the NPS the responsibility of managing the Park. GSA formally transferred the title to the NPS in 1976.

Portions of the cultural landscape have been recognized in multiple National Register nominations. Glen Echo Park was designated as a historic district in 1984, with identified areas

of significance including architecture, art, commerce, education, entertainment, recreation, sculpture, and social and humanitarian history.

According to the 2011 CLI, the landscape remains in good condition and retains integrity across all seven aspects (location, design, setting, materials, workmanship, feeling, and association), despite the loss of some features over time. Contributing elements to the cultural landscape within the APE are included in **Table 1**.

Note that contributing archeological sites are not identified in the CLI. However, the CLI states that “A full discussion of the archaeological resource potential of the Glen Echo Park-Clara Barton House Cultural Landscape is beyond the scope of this CLI. However, given the historic nature of the project area, contributing resources may exist” (NPS 2011: 170).

**Table 1: Glen Echo Park – Clara Barton House Cultural Landscape – Contributing Elements**

<b>Contributing Landscape Characteristics</b>	<b>Contributing Character-Defining Features</b>
<b>Land Use</b>	<ul style="list-style-type: none"> <li>• Musicales and dances held at the Spanish Ballroom</li> <li>• Use of the Picnic Grove</li> <li>• Operation of the Dentzel Carousel</li> <li>• Present use of Glen Echo Park as an arts and cultural park</li> </ul>
<b>Natural Systems and Features</b>	<ul style="list-style-type: none"> <li>• Restored Minnehaha Creek stream bed</li> </ul>
<b>Topography</b>	<ul style="list-style-type: none"> <li>• Extant historic topography</li> </ul>
<b>Buildings and Structures</b>	<ul style="list-style-type: none"> <li>• Chautauqua Tower</li> <li>• Yellow Barn</li> <li>• Ruins of Chautauqua Amphitheater</li> <li>• Caretaker’s Cottage</li> <li>• Ruins of the Hall of Philosophy</li> <li>• Trolley Trestle Bridge</li> <li>• Dentzel Carousel</li> <li>• Carousel House</li> <li>• Candy Corner</li> <li>• Ice House</li> <li>• Horse Barn</li> <li>• Bumper Car Pavilion</li> <li>• Spanish Ballroom</li> <li>• Crystal Pool First Aid Building</li> <li>• Remnants of Crystal Pool Complex</li> <li>• Crystal Pool Beach Restrooms</li> <li>• Glen Echo Park Entrance Portal</li> <li>• Administration Building</li> <li>• Amusement Arcade</li> <li>• Cuddle Up Pavilion</li> <li>• Mirror Maze</li> <li>• Comfort Station</li> <li>• Clara Barton House</li> </ul>
<b>Circulation</b>	<ul style="list-style-type: none"> <li>• Interconnected spaces between the buildings and structures at Glen Echo Park</li> <li>• Trolley right-of-way</li> <li>• Stairs leading between the trolley right-of-way and MacArthur Boulevard</li> <li>• West parking lot</li> <li>• Circular driveway west of the Clara Barton House</li> </ul>

Contributing Landscape Characteristics	Contributing Character-Defining Features
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>• Trees growing inside the Picnic Grove in Glen Echo Park</li> <li>• Southern magnolia east of the Clara Barton House<sup>5</sup></li> </ul>
<b>Views and Vistas</b>	<ul style="list-style-type: none"> <li>• View of the Glen Echo Park Entrance Portal from the trolley right-of-way and MacArthur Boulevard</li> <li>• View of the Potomac River and Chesapeake and Ohio Canal from the grounds of the Clara Barton House</li> </ul>
<b>Constructed Water Features</b>	<ul style="list-style-type: none"> <li>• Miniature golf course fountain ruins</li> <li>• Stone headwall<sup>5</sup></li> </ul>
<b>Small-Scall Features</b>	<ul style="list-style-type: none"> <li>• Stone retaining wall south of the Clara Barton House</li> </ul>

Glen Echo Park Crystal Pool Cultural Landscape

The Crystal Pool Cultural Landscape occupies approximately 1.5 acres within Glen Echo Park in Montgomery County, MD, just northwest of Washington, DC. The landscape includes the remnants of the Crystal Pool (inclusive of the entrance pylon façade and remaining features of the pool walls and buried filled-in pool), remnants of the Grandstand, remnants of the Beach Restrooms Building, First Aid Building, and the Spanish Ballroom. The cultural landscape is documented in the NPS’ 2025 Glen Echo Park Crystal Pool Cultural Landscape Report (CLR) Part I.

Constructed in 1931 by the Washington Railway and Electric Company, the Crystal Pool was designed by the amusement park architecture firm Alexander, Becker, and Schoeppe. At the time of its completion, it was the largest public swimming pool in the Washington, DC area and served as a major recreational attraction for several decades. The pool remained a central feature of Glen Echo Park through the mid-20th century until its partial demolition in the early 1980s due to deterioration and funding limitations.

The recommended period of significance for the cultural landscape is 1931 to 1968, encompassing the design and construction of the pool and the full time period that the pool was a major attraction at the amusement park and played an important role in the local economy and recreation.

The Crystal Pool is a component landscape of the Glen Echo Park historic site that contributes significance to the Glen Echo Park Historic District. According to the 2025 CLR, “[t]he extant features of the Crystal Pool, while not easily identifiable as a standalone site, building, or object, retains its historic location and association to the rest of the Park, retains remnants of the overall design and period detailing, materials, and workmanship, and retains aspects of its historic setting. The Crystal Pool landscape no longer expresses the feeling of a recreational pool” (NPS 2025: 4-1). Contributing elements to the Crystal Pool cultural landscape within the APE are included in **Table 2**.

---

<sup>5</sup> The 2011 CLI classifies this feature as “undetermined” in whether it is a contributing or non-contributing element of the cultural landscape.

Note that contributing archeological sites are not identified in the CLR. However, the CLR states “[f]urther archeological reconnaissance surveying and subsurface testing can be carried out to explore remains dating to the Chautauqua period and reveal information relevant to the landscape’s prehistory. However, it is likely that prehistoric resources were destroyed or disturbed during the development of the amusement park and subsequent demolition activities at the Crystal Pool. While remnant features of the Crystal Pool landscape, which today can be recognized as ruins, are evaluated in Buildings and Structures relative to their historic function and part of a whole, there is potential for these features to exist as an archeological site” (NPS 2025: 4-37).

**Table 2: Glen Echo Park Crystal Pool Cultural Landscape – Contributing Elements**

<b>Contributing Landscape Characteristics</b>	<b>Contributing Character-Defining Features</b>
<b>Spatial Organization</b>	<ul style="list-style-type: none"> <li>• Remnants of the Crystal Pool landscape and extant buildings and structures</li> </ul>
<b>Natural Systems and Features</b>	<ul style="list-style-type: none"> <li>• Restored Minnehaha Branch stream bed</li> </ul>
<b>Topography</b>	<ul style="list-style-type: none"> <li>• Extant historic topography (western slope)</li> </ul>
<b>Buildings and Structures</b>	<ul style="list-style-type: none"> <li>• First Aid Building</li> <li>• Remnants of the Crystal Pool Complex</li> <li>• Entrance Pylon Façade</li> <li>• Remnants of the Grandstand</li> <li>• Remnants of the Beach Restrooms Building</li> <li>• Spanish Ballroom</li> </ul>
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>• Woods (along western perimeter)</li> </ul>
<b>Views and Vistas</b>	<ul style="list-style-type: none"> <li>• View of the Crystal Pool Entrance Pylon Façade from the Glen Echo Park Entrance Portal</li> <li>• View from the historic North Entrance looking towards the Crystal Pool landscape (late 1950s-1968)</li> <li>• View of the Crystal Pool landscape from the Spanish Ballroom northwest outdoor promenade deck<sup>6</sup></li> </ul>

---

<sup>6</sup> The view of the Crystal Pool landscape from the Spanish Ballroom northwest outdoor promenade deck is a contributing, yet missing view. The CLR notes “[while] the vantage point remains, the historic view of non-extant buildings and features has been lost” (NPS 2025: 4-32).

### Clara Barton National Historic Site Cultural Landscape

The cultural landscape is documented in the NPS' 2023 Rehabilitate the Clara Barton National Historic Site CLR. The Clara Barton National Historic Site Cultural Landscape occupies the approximately 9-acre Clara Barton National Historic Site, an independent NPS holding. The cultural landscape includes the Clara Barton House, the landscape immediately around the house, a small parking area and open field north of the house, the main parking lot shared between Glen Echo Park and the Clara Barton National Historic Site, and a portion of the Minnehaha Woodland.

The cultural landscape's period of significance, 1891-1912, begins when Edward and Edwin Baltzey gifted a parcel of land and constructed a home for Clara Barton and ends with her death at home in 1912. The period of significance covers Barton's residency from 1897-1912 and the 1897-1904 period where the site served as the national headquarters for the Red Cross. The Clara Barton National Historic Site is listed in the National Register as described in the *Historic Districts, Buildings and Structures* section.

According to the 2023 CLR, the cultural landscape "has limited integrity, but as a whole, the site retains the potential to portray the historical and cultural values associated with Clara Barton and the American Red Cross. . . . Extant contributing landscape features include relatively large-scale, essential aspects of the property such as natural systems and topography; spatial organization; some views; basic circulation including a driveway loop; and the Clara Barton House. Though present, each of these contributing features have been impacted by detrimental changes since 1912" (NPS 2023: 1.14). Contributing elements to the Clara Barton National Historic Site cultural landscape within the APE are included in **Table 3**.

Note that contributing archeological sites are not identified in the CLR. However, the CLR states "[a]lthough not related to the areas of significance ascribed to the Clara Barton NHS, the property exists within the traditional lands of the Nacotchtank and may hold archeological data for the pre-contact period. For the historic period, an archeological assessment in 2022 determined that the areas west and south of the house have moderate to high potential for archeological data which may pertain to the areas of significance ascribed to the National Historic Site" (NPS 2023: 4.37).

**Table 3: Clara Barton National Historic Site Cultural Landscape – Contributing Elements**

<b>Contributing Landscape Characteristics</b>	<b>Contributing Character-Defining Features</b>
<b>Spatial Organization</b>	<ul style="list-style-type: none"> <li>• Elevated residential site overlooking the Potomac River Valley</li> <li>• Lawn north of Clara Barton House</li> <li>• Driveway loop defining homestead horticulture plot</li> </ul>
<b>Land Use</b>	<ul style="list-style-type: none"> <li>• House museum; memorial function</li> <li>• Arrival at end of Oxford Road on driveway loop</li> <li>• Service functions west of the house</li> </ul>
<b>Natural Systems and Features</b>	<ul style="list-style-type: none"> <li>• Minnehaha Branch perennial stream</li> <li>• Woodland edge habitat supporting native species</li> <li>• Steep slope south toward the Potomac River</li> </ul>
<b>Buildings and Structures</b>	<ul style="list-style-type: none"> <li>• Clara Barton House</li> <li>• South stone retaining wall</li> </ul>
<b>Circulation</b>	<ul style="list-style-type: none"> <li>• Oxford Road</li> <li>• Walk from Oxford Road, general pattern</li> <li>• Driveway loop, general pattern</li> </ul>
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>• Lawn on ground plane near house</li> </ul>
<b>Views and Vistas</b>	<ul style="list-style-type: none"> <li>• Panoramic view south to Potomac River and beyond</li> <li>• Visual relationship between Clara Barton House and adjacent north and west suburban development</li> </ul>

### Clara Barton Parkway Cultural Landscape

The Clara Barton Parkway cultural landscape comprises 280 acres along the MD side of the Potomac River. The Clara Barton Parkway, a component landscape of the overall George Washington Memorial Parkway, passes through the APE. The Clara Barton Parkway follows a 6.8-mile length of the Potomac River from MacArthur Boulevard in Carderock, MD east to Canal Road at the Chain Bridge in Washington, DC. Approximately 0.4 miles of the parkway are within the APE. The cultural landscape is documented in the NPS' 2015 Clara Barton Parkway CLI.

The Clara Barton Parkway cultural landscape is nationally significant under Criterion A, due to its associations with the broader planning of Washington, DC and for its role in the conservation and protection of the Potomac River gorge. The segment from Carderock to the MD state line is also significant under Criterion C, for its unique landscape architecture and engineering.

The period of significance for the Clara Barton Parkway cultural landscape is 1930 – 1970 encompassing the design and construction phases of the parkway. The cultural landscape retains a high integrity to its period of significance and has integrity of location, design, materials, association, feeling, setting, and workmanship. The 2015 CLI states “Few changes have occurred to the landscape since then, and most of those have to do with the growth, death and succession of vegetation and the establishment of non-native, invasive vegetation” (NPS 2015a: 49). Contributing elements to the cultural landscape within the APE are included in **Table 4**.

Note that contributing archeological sites are not identified in the CLI. However, the CLI states “[a] thorough inventory of archeological resources of the parkway is beyond the scope of this CLI, however there are various potential sets of historical resources that would merit investigation with archeological methods” (NPS 2015a: 107). The CLI continues to note that a 1982 survey of the Maryland side of the Potomac River Gorge between Great Falls to Little Falls, which the Park is located between, identified archeological sites. Remnants of the DC Transit streetcar line are also likely to exist especially at the endpoint of the line just beyond Glen Echo (NPS 2015a).

**Table 4: Clara Barton Parkway Cultural Landscape – Contributing Elements**

<b>Contributing Landscape Characteristics</b>	<b>Contributing Character-Defining Features</b>
<b>Spatial Organization</b>	<ul style="list-style-type: none"> <li>• Open space between forested edges (Carderock to Glen Echo, Brookmont)</li> <li>• Two-tiered spatial condition at cantilever</li> </ul>
<b>Land Use</b>	<ul style="list-style-type: none"> <li>• Transportation</li> <li>• Recreation</li> </ul>
<b>Natural Systems and Features</b>	<ul style="list-style-type: none"> <li>• Potomac River</li> <li>• Potomac Palisades (bluffs)</li> <li>• Minnehaha Creek</li> </ul>
<b>Topography</b>	<ul style="list-style-type: none"> <li>• Steep cross slopes (from Chain Bridge to Cabin John)</li> <li>• Terrace cross slopes at Brookmont and Glen Echo</li> <li>• Level terrace (Cabin John to MacArthur Boulevard)</li> <li>• Gentle ascending and descending grades along the length of the parkway</li> <li>• Steep ascent at Glen Echo</li> </ul>
<b>Buildings and Structures</b>	<ul style="list-style-type: none"> <li>• Parkway roadway</li> <li>• Cantilever structure</li> <li>• Breast walls</li> <li>• Retaining walls</li> <li>• Stone masonry guardwalls</li> <li>• Boulders</li> <li>• Large, box culverts</li> <li>• Small box culverts and pipe culverts</li> </ul>
<b>Circulation</b>	<ul style="list-style-type: none"> <li>• Local exit at Glen Echo</li> <li>• Divided four-lane roadway (Glen Echo to Carderock)</li> <li>• Alternating two-lane and four-lane roadway (Chain Bridge to Glen Echo)</li> <li>• Single, two-lane roadway (Carderock to MacArthur Boulevard)</li> <li>• Parking area at Lock 7</li> <li>• One-way traffic pattern during rush hours (Chain Bridge to Glen Echo)</li> </ul>
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>• Naturalized plantings along forest edges (Glen Echo to Carderock)</li> <li>• Replacements for specimen plantings at existing and parking areas</li> </ul>
<b>Views and Vistas</b>	<ul style="list-style-type: none"> <li>• Eastbound view of Lock House 7</li> </ul>
<b>Small Scale Features</b>	<ul style="list-style-type: none"> <li>• Mountable angled curbs along roadway</li> <li>• Square curbs in parking areas</li> </ul>

Activities beyond the scope of the proposed action but located within or surrounding the APE have the potential to result in adverse impacts on cultural landscapes. As development occurs surrounding the Park, contributing elements of the cultural landscapes could be changed directly, such as through physical changes, or indirectly through visual changes. A 2023 tree inventory and assessment of Glen Echo Park rated eight percent (12 trees) of the assessed trees as “Poor” or “Dead” and recommended the removal of 13 trees (WSSI 2024). GEPPAC, in coordination with NPS, has since removed some of these trees and planted new trees. The removal or continued decline of these trees not removed may impact contributing vegetation of the cultural landscapes.

Additionally, deferred vegetation management and other maintenance priorities within the Park have enabled invasive, successional vegetation within the remnants of the Crystal Pool landscape to grow. Invasive weeds and successional plants are pioneering between cracks in the concrete remnants of the Crystal Pool Complex. The remnants of the Grandstand include deteriorating concrete piers. The contributing woods have taken over the historic footprint of the Grandstand (NPS 2025). Continued deferred maintenance may impact these contributing buildings and structures of the cultural landscapes.

### **Impact Assessment Methodology**

Potential impacts on cultural landscapes affect the historic character and integrity of the cultural landscape as defined by the CLIs and CLRs. The impacts, direct or indirect, adverse or beneficial, are analyzed in consideration of additional regulations and guidance provided by NEPA, Section 106 of the National Historic Preservation Act (NHPA), the *Secretary of Interior’s Standards for the Treatment of Historic Properties*, *Guidelines for the Treatment of Cultural Landscapes*, *NPS Management Policies 2006*, *Director’s Order 28*, and other NPS guidance for the treatment of cultural landscapes.

The proposed action does not include any type of design or construction work; those will occur at a later date and will undergo the Section 106 of the NHPA process separately. Therefore, an AOE has not been prepared for the proposed action. However, the NPS initiated consultation with the MHT in a letter dated September 20, 2024.

### **Impacts of Alternative A: No Action**

Under the No Action Alternative, no changes would occur to the Glen Echo Park-Clara Barton House, Glen Echo Park Crystal Pool, Clara Barton National Historic Site, and Clara Barton Parkway cultural landscapes. The NPS, and Montgomery County and GEPPAC would continue to maintain the grounds and existing facilities, respectively of the Park. Maintenance actions would include routine maintenance and repairs to maintain operation of the buildings, structures, open space, and supporting infrastructure and amenities. Vegetation management would primarily involve the removal of overhanging vegetation and hazard trees to promote visitor safety, routine mowing of existing maintained open space, replacement in kind (or with compatible species) of contributing vegetation, and invasive plant management treatments. As a result, Alternative A would not result in impacts on cultural landscapes.

### Impacts of Alternative B: Management Plan Amendment

Alternative B would identify buildings and structures for removal, define potential buildable zones for future development, propose measures to improve circulation and accessibility, and provide additional stormwater management improvements.

Under Alternative B, no physical changes would be made to the Clara Barton Parkway Cultural Landscape, including the cultural landscape's contributing character-defining land uses of transportation and recreation.

Alternative B could potentially physically impact the following character-defining features of the Glen Echo Park-Clara Barton House Cultural Landscape (NPS 2011):

- **Natural Systems and Features:** Alternative B would introduce a new pedestrian bridge across the restored Minnehaha Creek stream bed. It is anticipated that vegetation would be removed around the restored Minnehaha Creek stream bed to accommodate the new pedestrian bridge across the creek.
- **Buildings and Structures:** Alternative B would remove the restroom building adjacent to the Carousel, which is identified as the contributing Comfort Station in the cultural landscape. The introduction of a new accessible and ramped pedestrian bridge across the Minnehaha Creek could impact the ruins of the Chautauqua Amphitheater. Alternative B could potentially impact the remnants of the Crystal Pool Complex and the Crystal Pool Beach Restrooms through the addition of a subsurface building within the existing below-grade cavity.
- **Circulation:** Alternative B would make existing pathways within the Park accessible through re-grading and where needed, adding ramps with handrails, guardrails, and landings as required to meet accessibility standards. These changes would physically impact the interconnected spaces between the buildings and structures at the Park, but the location of these spaces would overall be retained. Accessibility improvements to the west parking lot could result in physical changes, but the location of the west parking lot would be retained.

The Glen Echo Park-Clara Barton House Cultural Landscape's contributing character-defining land uses would be retained. Under Alternative B, no changes would be made to the musicales and dances held at the Spanish Ballroom, use of the picnic grove, operation of the Dentzel Carousel, and the present use of Glen Echo Park as an arts and cultural park.

Alternative B could potentially physically impact the following character-defining features of the Glen Echo Park Crystal Pool Cultural Landscape (NPS 2025):

- **Natural Systems and Features:** Alternative B would introduce a new pedestrian bridge across the restored Minnehaha Creek stream bed.
- **Buildings and Structures:** Alternative B could potentially impact the remnants of the Crystal Pool Complex and the Beach Restrooms Building through the addition of a subsurface building within the existing below-grade cavity.
- **Vegetation:** Alternative B would introduce a new pedestrian bridge across the Minnehaha Branch, which would involve vegetation removal. The new pedestrian bridge, depending on

the bridge's exact siting to be determined during future design efforts, could impact the contributing Woods along the western perimeter.

- **Views and Vistas:** Alternative B would introduce a new pedestrian bridge across the Minnehaha Branch, which would involve vegetation removal. The new pedestrian bridge and vegetation removal, depending on the bridge's exact siting to be determined during future design efforts, could partially open up the contributing view from the historic North Entrance looking towards the Crystal Pool landscape (late 1950s-1968), a view which vegetation currently completely obscures.

Alternative B could potentially physically impact the following character-defining features of the Clara Barton National Historic Site Cultural Landscape (NPS 2023):

- **Natural Systems and Features:** Alternative B would introduce a new pedestrian bridge across the Minnehaha Branch perennial stream and woodland edge habitat supporting native species. It is anticipated that vegetation would be removed around the Minnehaha Branch to accommodate the new pedestrian bridge across.

The Clara Barton National Historic Site Cultural Landscape's contributing character-defining land uses would be retained. Under Alternative B, no changes would be made to the house museum, memorial function, arrival at the end of Oxford Road on the driveway loop, and service functions west of the house.

Alternative B would have adverse impacts on the Glen Echo Park-Clara Barton House, Glen Echo Park Crystal Pool, and Clara Barton National Historic Site cultural landscapes. The degree of impact to these aspects of integrity would depend upon final design decisions for the new improvements. Further design development within the buildable zones is needed following the EA. Design and construction work associated with individual development projects would occur in the future and undergo the Section 106 of the NHPA compliance process separately. Consultation with the MHT and relevant tribes would occur as specific projects are designed and implemented.

## VEGETATION

### Affected Environment

The Park contains a mix of developed and natural areas. Approximately 38 percent (or approximately 7.8 acres) of the Park is impervious surfaces and is developed with buildings, structures, parking lots, and paved walkways. According to 2020 data from Montgomery County, ground cover of the Park consists of approximately 41 percent forest or non-forest trees, 38 percent impervious ground or structure, 19 percent grass, and 1 percent barren. Approximately 49 percent of the Park has tree canopy cover (MNCPPC n.d.). Vegetation at Glen Echo Park consists of numerous trees, shrubs, perennials, and grasses. The most heavily vegetated section of Glen Echo Park is the Minnehaha Woodland flanking Minnehaha Creek, with all or most of the trees in this area dating to the restoration of the stream bed in 1992 (NPS 2011).

Overall, the Park contains native and non-native tree species (WSSI 2024). According to the 2001 Plan, dominant tree species within the Park include the following:

- Sycamore (*Platanus sp.*)
- Slippery elm (*Ulmus rubra*)
- American elm (*Ulmus americana*)
- Box elder (*Acer negundo*)
- Locust (*Gleditsia sp.* and/or *Robinia sp.*)
- Basswood (*Tilia sp.*)
- American white ash (*Fraxinus americana*)
- Silver maple (*Acer saccharinum*)
- Tulip poplar (*Liriodendron tulipifera*)
- Royal Paulownia (*Paulownia tomentosa*)<sup>7</sup>
- White oak (*Quercus alba*)
- Red oak (*Quercus rubra*)

Dogwood (*Cornus sp.*), spicebush (*Lindera sp.*), redbud (*Cercis sp.*), black willow (*Salix nigra*), and numerous herbaceous species were also found to be present as understory species (NPS 2001).

A tree inventory and assessment was conducted in November 2023. An update to this tree inventory and assessment was being conducted at the time of drafting this EA. The 2023 assessment evaluated a total of 149 trees throughout Glen Echo Park, but excluded the area flanking Minnehaha Creek. Of the 149 trees evaluated, the top five most common species included (WSSI 2024):

- American elm (*Ulmus americana*) (17 percent)
- American sycamore (*Platanus occidentalis*) (12 percent)
- Common crape myrtle (*Lagerstroemia indica*) (8 percent)
- Northern red oak (*Quercus rubra*) (7 percent)
- Box elder (*Acer negundo*) (6 percent)

Overall, the assessment found that “[g]enerally, the landscape appeared to be maintained well and a minor number of trees at the park are of high concern. The park has a relatively young tree stand but still has a fair amount of large specimen trees. The most common issues observed were varying degrees of vines climbing on the trunk and branches.” The assessment also rated eight percent (12 trees) of the assessed trees as “Poor” or “Dead” and recommended the removal of 13 trees. GEPPAC, in coordination with the NPS, has since removed some of these trees and planted new trees.

### Impact Assessment Methodology

Potential impacts on vegetation resulting from the implementation of the proposed alternatives were assessed through review of existing literature (e.g., the 2023 tree inventory) and desktop

---

<sup>7</sup> The Maryland Department of Agriculture identifies Royal Paulownia as an “assessment in progress” invasive plant (MDA 2017).

analysis of government natural resources databases. Impacts to vegetation were assessed by examining the estimated extent of potential vegetation removal within the Management Plan Amendment's buildable zones.

### **Impacts of Alternative A: No Action**

Under the No Action Alternative, no new development (e.g., buildings, structures, associated pathways or other impervious surfaces) would occur within the Park. The NPS, and Montgomery County and GEPPAC would continue to maintain the grounds and existing facilities, respectively of the Park. Maintenance actions would include routine maintenance and repairs to maintain operation of the buildings, structures, open space, and supporting infrastructure and amenities. Impacts to vegetation under the No Action Alternative would primarily involve the removal of overhanging vegetation and hazard trees to promote visitor safety, routine mowing of existing maintained open space, replacement in kind (or with compatible species) of contributing vegetation, and invasive plant management treatments. The long-term impacts on vegetation would be negligible.

### **Impacts of Alternative B: Management Plan Amendment**

Under Alternative B, new development in the buildable zones and circulation, accessibility, and stormwater improvements would result in the disturbance or removal of vegetation, including native and/or non-native trees.

The proposed Plan is limited to identifying potential areas for development (i.e., the buildable zones) that could range from hardscape areas to outdoor pavilions to structures or buildings. The buildable zones do not represent final building footprints and are intentionally oversized to accommodate building and related features. At this time, it is unknown how much vegetation, including trees, would be disturbed or removed. However, development within the buildable zones could disturb up to approximately 1.1 acres, or 13 percent, of the Park's ground cover that is forest or non-forest trees and up to approximately 0.5 acres, or 13 percent, of the Park's ground cover that is grass, according to 2020 data from Montgomery County.

The proposed buildable zones include a minimum of approximately 30 trees, including both native and non-native species. This minimum number is based on the following:

- The number of trees that were documented in the November 2023 tree inventory and assessment and are within the buildable zones. However, this inventory and assessment did not cover the entire Park (e.g., the Minnehaha Woodland was not included).
- A visual assessment of an overlay of aerial photography, the location of the buildable zones, and the November 2023 tree inventory and assessment.

At this time, it is unknown how many of these trees would be disturbed or removed as a result of future development within these buildable zones. It is anticipated that trees would be removed within the Minnehaha Woodland flanking Minnehaha Creek to accommodate the new pedestrian bridge across the creek and given the tree density within the Minnehaha Woodland. Development within this area would be carefully planned to minimize ecological impact and preserve the woodland's natural character.

Overall, further design development within the buildable zones is needed following the EA to identify the number of trees and area of vegetation to be impacted. Design work associated with individual development projects would occur in the future and may require separate NEPA compliance where vegetation impacts would be further assessed. The 2023 tree survey would be updated during detailed design to document existing individual trees within the Park, including any specimen trees, and to identify opportunities to avoid or minimize tree removal. In addition, development projects would be designed in accordance with the Maryland's Forest Conservation Act (FCA) (Natural Resources Article §§ 5-1601–5-1613) that integrates forest conservation into the development review process. For projects on 40,000 square feet or more that apply for a subdivision, grading, or sediment control permit, the FCA requires (i) a Forest Stand Delineation (FSD) to identify and prioritize forest resources and (ii) a Forest Conservation Plan (FCP) to retain, reforest, or afforest as needed.

Design objectives would retain existing mature trees to the greatest extent possible. Future development within these zones would comply with applicable local, state, and federal regulations (e.g., Maryland's FCA) and would be sensitive to the natural contexts of Glen Echo Park and its surroundings.

The NPS and/or its contractors would adhere to applicable BMPs during the construction phases. Prior to construction, trees to be preserved should be identified and the root zone protected by the installation of safety fence. If root impacts are unavoidable, root pruning techniques along with other strategies would be used to best maintain tree health and longevity. Mature trees that cannot be retained in place would be replaced in kind or with a compatible substitution within site landscaping to the extent feasible. Construction contractors would be required to clean vehicles and equipment offsite, and to use weed-free construction materials, to prevent the inadvertent introduction of invasive plant seeds, propagules, and other weed seeds into the Park. Soils exposed during construction would be re-vegetated or otherwise stabilized following construction completion. In areas where tree and vegetation removal would occur, the areas would be revegetated using native grasses, shrubs, trees, or other plants where needed for soil stabilization and a natural appearance.

## **VISITOR USE AND EXPERIENCE**

### **Affected Environment**

Glen Echo Park receives over 300,000 visitors annually. The Park offers year-round arts, cultural, educational, and recreational programming. Visitor use is supported by regularly scheduled classes, performances, exhibitions, seasonal events, and interpretive programs (GEPPAC 2022, NPS 2023).

### Programming

Programming is delivered across a variety of buildings and open-air structures. All indoor facilities and most outdoor spaces are actively programmed and used at or near full capacity, which results in waitlisting or turning interested visitors away from programming participation. Some facilities serve multiple uses, but not all uses are supported by adequate infrastructure. For example, the Bumper Car Pavilion functions as a concert space, in addition to providing other uses, despite it lacking sufficient stage space or back-of-the-house support infrastructure.

Current programming includes the following uses, with facility characteristics and current operational needs noted:

- **Glen Echo Park Aquarium:** Includes Chesapeake Bay exhibits and marine science programs. Timed ticketing is used due to spatial limitations, and classroom capacity limits the number of participants accommodated at one time.
- **Yellow Barn Building:** Offers art instruction, public workshops, gallery exhibitions, and other community-facing activities. The building is home to the Silverworks Studio and Yellow Barn Studio resident organizations. Most classes operate at or near capacity. Silverworks Studio is currently split between two locations within the Yellow Barn Building. Most painting and drawing classes are at full capacity with high demand.
- **Chautauqua Tower:** Has a gallery with rotating exhibitions, including non-traditional media and a resident artist that specialized in painting and drawing with classes, workshops, and studio space.
- **Candy Corner:** Provides NPS programming.
- **Arcade Building:** Hosts a broad range of visual and performing arts classes for adults and children, including painting, fused glass, photography, music, and theater. Year-round live performances and educational programs are also provided. The building also contains rotating exhibition galleries, administrative offices, and the Park's primary visitor center. The building is currently home to the following resident organizations: Photoworks, The Puppet Co., Art Glass Center at Glen Echo, Adventure Theatre MTC, and Washington Conservatory of Music. Children and teen camps operate at or near capacity and are in high-demand. The Washington Conservatory of Music uses space throughout the Arcade Building and the Spanish Ballroom Back Room.
- **Yurts and Pottery Kiln and Shed:** Offers adult and teen pottery classes, open studio hours, and weekend exhibitions. Programming runs daily except during scheduled closures for maintenance. The yurts, which are temporary structures without climate control, are home to Glen Echo Pottery, one of the Park's resident organizations. Pottery programs consistently reach maximum enrollment with waitlists.
- **Glassblowing Studio:** Provides a studio for blown glass instruction, sales of blown glass pieces, and special programs. The studio is home to Glen Echo Glassworks, one of the Park's resident organizations. The program operates in a small building without a dedicated public demonstration area. Glassblowing has a high demand for programs.
- **Dentzel Carousel:** Operates seasonally (May through September). Programming includes family events, educational activities, and special event access with free rides.
- **Cuddle Up Pavilion:** Provides open-air space for camp programs, performances, and other special events. The pavilion includes stage for performances.
- **Hall of Mirrors Dance Studio, Spanish Ballroom, and Bumper Car Pavilion:** Host instructional dance, dance-based fitness, and public social dance programs such as swing, contra, and salsa. The Spanish Ballroom and Bumper Car Pavilion are also used for special events and festivals. The Bumper Car Pavilion also provides concert space. The Spanish Ballroom and Bumper Car Pavilion are unconditioned (i.e., provide no heating or air conditioning), and flooring and room configurations vary between spaces. Events at the Spanish Ballroom occur weekly and draw regional attendance.

- **Outdoor Spaces (Open areas and lawns):** Support seasonal public events such as Art Walk in the Park, Carousel Day, Echo Arts Festival, and concerts. These spaces are scheduled throughout spring, summer, and fall and are actively used during peak visitation periods.

In addition to the above programming, the Park also has a Picnic Grove with picnic tables and playground area for visitor use. Public restrooms are located in most buildings at the Park, including in the Arcade Building, the restroom building adjacent to the Carousel, and the Spanish Ballroom.

Overall, Glen Echo Park's facilities support a wide variety of arts, cultural, and recreational programming. Many programs operate at or near full capacity, with some activities taking place in temporary or adaptable spaces. Programming occurs in both climate-controlled and unconditioned environments, reflecting the varied nature of the Park's facilities. Certain areas of the Park, including the Crystal Pool area, are not currently in active use.

### Civil Rights Programming & Interpretation

Glen Echo Park has historic significance as a site of Civil Rights activism. In 1960, it was the location of protests that contributed to the desegregation of Glen Echo Amusement Park. The site's legacy is interpreted through a range of programs and materials. Current Civil Rights programming includes:

- **Ranger-Led History Tours:** Offered monthly, these walking tours focus on the events and outcomes of the 1960 demonstrations.
- **Educational Films:** Documentaries such as *Ain't No Back to a Merry-Go-Round* and *Carousel of Memories* are shown during special events.
- **Junior Ranger Program:** A Civil Rights-themed Junior Ranger booklet is available.
- **Commemorative Events:** Civil Rights history is featured during Heritage Days and Black History Month programs, which include film screenings, performances, and panel discussions.
- **Interpretive Materials:**
  - An interior exhibit on Civil Rights history on occasional display.
  - An exterior wayside panel near the Dentzel Carousel provides interpretive content.
  - A commemorative plaque is installed in the woodland area north of the carousel.

### Circulation and Accessibility

#### *Pedestrian*

Pedestrians accessing Glen Echo Park from the main parking lot, which is shared with the Clara Barton National Historic Site, proceed along a paved route that crosses the footbridge over Minnehaha Creek into the Park. This entrance path leads visitors along the woodland area housing the pottery yurts and continues south toward the Dentzel Carousel. A secondary pedestrian entrance is located along MacArthur Boulevard at the historic park entrance (i.e., where the Glen Echo Park neon sign is located). Internal pedestrian circulation mostly occurs on paved pathways that provide access to all buildings and outdoor program areas. Pedestrian routes, including external approaches and internal walkways, are non-ABAAS and/or non-PROWAG compliant because walkways follow the natural topography of the Park and slopes

exceed ABAAS and/or PROWAG. Curb ramps and sidewalks are also insufficient to meet ABAAS and/or PROWAG, and/or are damaged.

### *Vehicular*

Vehicular access to the Park is limited to two locations: the main parking lot shared with the Clara Barton National Historic Site, and a permit parking lot near the historic entrance on MacArthur Boulevard. The main parking lot is open to all visitors, while the permit parking lot is restricted to staff, artists, and students during the day, but available to the public after 4:00 PM. Both lots include designated parking spaces intended to be accessible. However, these spaces and associated routes do not meet ABAAS and/or PROWAG.

### *Bus*

Public transit access is provided by the Montgomery County Ride On bus service, with the nearest stop located at the intersection of MacArthur Boulevard and Goldsboro Road. Passengers dropped off at this location proceed along non-ABAAS and/or non-PROWAG compliant pedestrian routes either east along MacArthur Boulevard to access the Park via the historic park entrance, or west along MacArthur Boulevard to a by-lane leading to the permit parking lot and continuing on to the same historic entrance. There is no direct pedestrian connection from the bus stop to the main footbridge entrance. To access the Park via the footbridge, pedestrians must walk south along Oxford Road, enter the Clara Barton National Historic Site, and continue through the shared parking lot to reach the footbridge that leads into the Park.

### *Bicycle*

Bicycle access routes are available along MacArthur Boulevard, with approach points near the permit parking lot and at the intersections with Oxford Road and Tulane Avenue. At the MacArthur Boulevard intersection with Oxford Road, cyclists can continue east along MacArthur Boulevard in a protected side path or along a bike path through the Minnehaha Woodland and crossing the Minnehaha Creek via the trolley trestle bridge before connecting to the permit parking lot and back up to MacArthur Boulevard. However, these routes do not provide direct access to the interior of the Park. Popular regional trails including the Chesapeake and Ohio Canal Towpath and Capital Crescent Trail have approximately 100,000 annual bicycle users. While these trails are in close proximity to the project area, there is not a physical connection up to the site.

### *Accessibility*

Access routes into and throughout Glen Echo Park are non-ABAAS and/or non-PROWAG compliant. This includes the footbridge, paved walkways, and approach routes from public transportation stops and parking lots. Identified barriers include lack of ramps, uneven surfaces, steep slopes, narrow paths with non-compliant widths, and limited compliant transitions between circulation areas and key facilities. These conditions reflect the original design of the amusement park and the limited accessibility upgrades implemented during the early 2000s. Designated parking spaces intended to be accessible do not fully meet ABAAS and/or PROWAG requirements. The main parking lot and permit parking lot has eight and two designated parking spaces, respectively, intended to be accessible.

Overall, the existing circulation infrastructure at Glen Echo Park provides limited support for visitors arriving on foot, bicycle, or public transportation. In addition, many buildings, site components, and programs remain difficult to access for visitors with disabilities due to non-compliant paths, surfaces, and facility features. These conditions limit access and reduce the overall accessibility and connectivity of the park experience.

### **Impact Assessment Methodology**

Potential impacts on visitor use and experience at and in the vicinity of the Park were analyzed in consideration of the current visitor uses, activities, and circulation, the proposed elements included in the alternatives, and professional knowledge and judgment.

### **Impacts of Alternative A: No Action**

Under the No Action Alternative, no changes would occur to the Park's buildings, structures, outdoor spaces, associated pathways, and parking lots. The extent of the Park's programming would continue to be offered at and limited to the capacity of the Park's existing infrastructure. Visitors interested in participating in specific programming offerings would continue to be waitlisted or turned away because of existing capacity limits. Access routes to and within the Park that are currently non-ABAAS and/or non-PROWAG compliant would continue to be non-ABAAS and/or non-PROWAG compliant, limiting visitor access to the Park's buildings, structures, and outdoor spaces, and therefore, the Park's programming. As a result, Alternative A would result in adverse impacts on the visitor use and experience.

### **Impacts of Alternative B: Management Plan Amendment**

Alternative B would provide new areas where potential future development could occur, thus increasing the Park's capacity for new or expanded existing arts and cultural programming, special events, and future programming related to history at the environment at the site. Site-wide accessibility would be improved to increase visitor access throughout the Park.

#### Programming

Under Alternative B, programming would continue across existing buildings, structures, and outdoor spaces and open-air spaces, with the exception of the six yurts, pottery kiln and shed, and restroom building adjacent to the Carousel, which are proposed to be removed. Existing programming housed in these buildings and structures would be re-located to other existing or new buildings or structures.

Alternative B's proposed buildable zones would provide areas for the development of new one- to two-story buildings with conditioned, interior space across the Park and a subsurface building within the existing below-grade cavity of the Crystal Pool. These new buildings would accommodate programs operating at or near capacity and to relocate activities/programming from temporary or undersized spaces into purpose-built structures. Improvements could provide for expanded instructional, art studio, rehearsal, social dance, performance, exhibition, and public event areas; enhanced support spaces such as storage, catering support, and visitor amenities; and facilities designed for flexibility and climate control to support both seasonal and year-round use.

Pottery programming currently offered in the six yurts and supported by the pottery kiln and shed could be temporarily disrupted as the programming is re-located to existing or new buildings or structures. The re-location would move the pottery program from aging temporary structures without climate control to permanent structures with climate control, which would improve year-round visitor comfort. The re-location into a larger space would also allow for expanded programming to accommodate demand.

The restroom building adjacent to the Carousel would be removed. However, public restrooms at the Arcade Building and Spanish Ballroom would be retained. New buildings or structures would include public restrooms.

### Circulation and Accessibility

#### *Pedestrian and Accessibility*

Pedestrian access from the main parking lot via the existing footbridge over Minnehaha Creek would be retained. A new pedestrian bridge within the Minnehaha Woodland buildable zone would provide a new, accessible, and more direct pedestrian connection between the main parking lot and the interior of the Park. The secondary pedestrian entrance along MacArthur Boulevard at the historic Park entrance would be retained.

Internal paved pathways that provide access to all buildings and outdoor program areas would be retained in their general locations, but would be improved to be ABAAS-compliant. These improvements would provide new or easier access and circulation throughout the Park for visitors with accessibility needs.

#### *Vehicular*

Vehicular access to the Park would be retained at their current two locations: the main parking lot shared with the Clara Barton National Historic Site and the permit parking lot near the historic entrance on MacArthur Boulevard. The main parking lot would continue to be open to all visitors, while the permit parking lot would remain restricted to staff, artists, and students during the day and available to the public after 4:00 PM.

The existing main parking lot and permit parking lot would be modified to accommodate designated, ABAAS-compliant or PROWAG-compliant (where jurisdictionally applicable) accessible parking spaces to provide new or easier access for visitors with accessibility needs.

Alternative B would increase the Park's capacity for new or expanded existing arts and cultural programming, special events, and future programming, which could create additional parking demand to accommodate the increase in visitors. Overall, the identification of future programming and further design development within the buildable zones is needed following the EA to determine an anticipated increase in visitor volume and potential new demand for parking. Design work associated with individual development projects would occur in the future and may require separate NEPA compliance where transportation impacts would be further assessed.

#### *Bus*

Public transit access would continue to be provided by the Montgomery County Ride On bus service, with the existing stop remaining at the intersection of MacArthur Boulevard and

Goldsboro Road. A bus drop-off zone for school buses and tour buses, that is accessible, would be added to the main parking lot, improving access for visitors with accessibility needs.

### *Bicycle*

Existing bicycle access routes along MacArthur Boulevard and the perimeter of the Park would be retained.

### *Accessibility*

Under Alternative B, accessibility improvements in compliance with ABAAS would be made throughout the Park to create new or easier access and circulation throughout the Park for visitors with accessibility needs. These changes would also improve visitor access to the Park's programming.

Paved pathways that are currently non-ABAAS compliant and provide access to all buildings and outdoor program areas would be retained in their general locations, but would be improved to provide ABAAS-compliant accessible routes through, if needed, re-grading and/or constructing ramps with handrails, guardrails, and landings as required to meet accessibility standards. The existing main parking lot and permit parking lot would be modified to accommodate designated, ABAAS-compliant accessible parking spaces. An accessible bus drop-off zone for school buses and tour buses, would also be added to the main parking lot.

The construction of the elements mentioned above would temporarily close areas of the Park to visitors and could limit use of other locations, pedestrian circulation routes, and parking lots within the Park. Construction would be dispersed across the Park and phased over the long-term to minimize visitor disruption. Construction would also be phased according to periods of peak use for programming throughout the year to further minimize visitor disruption. Visitors would be directed around closed areas by signage. Visitors would be exposed to a short-term increase in ambient noise levels during the construction period, in accordance with Montgomery County's construction noise limits. As a result, Alternative B would result in short-term adverse impacts on visitor use and experience.

## CHAPTER 4: CONSULTATION AND COORDINATION

The NPS places a high priority on public involvement in the NEPA process and on giving the public an opportunity to comment on the proposed action. Consultation and coordination with federal, state, and local agencies, and American Indian tribes were also conducted to refine the alternatives and identify issues and/or concerns related to environmental impact topics. This section provides a summary of the public involvement, and agency consultation and coordination that occurred during planning.

- The NPS held one scoping meeting and 45-day public comment period related to the Glen Echo Park Management Plan Amendment between December 4, 2024 and January 24, 2025 with a public meeting on December 4, 2025. The public, agencies, and interested parties were invited to submit comments.
- The NPS initiated Section 106 consultation with the Maryland Historical Trust (MHT) (i.e., Maryland's State Historic Preservation Office) in a letter dated September 20, 2024. Ongoing consultation would occur during implementation of the proposed action.
- The National Capital Planning Commission (NCPC) reviewed the project on February 6, 2025. During the meeting, the public was offered the opportunity to comment.
- The NPS initiated Section 7 consultation via the USFWS's online Information for Planning and Consultation (IPaC) system on May 27, 2025. Ongoing consultation would occur during implementation of the proposed action.

## **LIST OF PREPARERS AND CONTRIBUTORS**

### **NPS National Capital Region**

Tammy Stidham, Associate Regional Director, Lands and Planning

Christine Bruins, Planning Portfolio Manager

Joel Gorder, Regional Environmental Coordinator

Justine Bello, Accessibility Coordinator

### **NPS George Washington Memorial Parkway**

Jennifer Madello, Superintendent

Charles Cuvelier, Former Superintendent

Christine Smith, Former Deputy Superintendent

Dr. Christopher (Doc) Hershey, Chief of Staff

Jonathan Molineaux, Former Partnerships Coordinator

Maureen Joseph, Chief of Resource Management

Susan Hall, Landscape Architect

### **Glen Echo Park Partnership for Arts and Culture**

Katey Boerner, Chief Executive Officer

Emily Rogers, Chief Operating Officer

### **Montgomery County**

David Dise, Director, General Services

Bahar Habibi, Project Manager, Division of Building Design and Construction

Hamid Omidvar, Chief, Division of Building and Construction

Matthew Barkley, Accessibility Coordinator

### **GWWO**

Lindsay McCook, Project Manager

Kathy Melliush, Associate Principal

### **AECOM**

Lauren Tuttle, Environmental Planner

Claire Sale, Environmental Planner

Cristina Dávila Gonzalez, Urban Planner (former employee)

Rujutha Parameswaran, Design Strategist

Patrick Moreland, Ecologist

Zoe Horns, Ecologist

**Gordon**

Alex Sarant, Senior Associate

Kelsey Ryan, Senior Associate

## REFERENCES

Federal Emergency Management Agency (FEMA). 2006. FEMA Flood Map Service Center. FIRM Panel 24031C0435D. Available <https://msc.fema.gov/portal/home>. Accessed May 19, 2025.

Glen Echo Park Partnership for Arts and Culture (GEPPAC). 2022. Glen Echo Park. Available <https://glenechopark.org/>. Accessed May 27, 2025.

Maryland Department of Agriculture (MDA). 2017 (September). Invasive Plant List (Being Assessed by the Maryland Department of Agriculture). Available [https://mda.maryland.gov/plants-pests/Documents/List\\_target\\_spp\\_for\\_assessment\\_12Sept2017-1.pdf](https://mda.maryland.gov/plants-pests/Documents/List_target_spp_for_assessment_12Sept2017-1.pdf). Accessed October 15, 2025.

Maryland Department of Natural Resources (DNR). 2021 (March). List of Rare, Threatened, and Endangered Plants of Maryland. Available [https://dnr.maryland.gov/wildlife/Documents/rte\\_Plant\\_List.pdf](https://dnr.maryland.gov/wildlife/Documents/rte_Plant_List.pdf). Accessed October 14, 2025.

Montgomery County Department of Permitting Services (DPS). No date (n.d.). FEMA Issued Preliminary Flood Map. Available <https://www.montgomerycountymd.gov/DPS/programs/FEMA-FIRMS/index.html>. Accessed October 23, 2025.

National Park Service (NPS). 1973. Washington Aqueduct. National Register of Historic Places Inventory – Nomination Form.

NPS. 1979. National Register of Historic Places Inventory – Nomination Form, C & O Canal.

NPS. 1980a. Carrousel at Glen Echo Park. National Register of Historic Places Inventory – Nomination Form.

NPS. 1980b. Chautauqua Tower. National Register of Historic Places Inventory – Nomination Form.

NPS. 1980c. Clara Barton National Historic Site. National Register of Historic Places Inventory – Nomination Form.

NPS. 1984. Glen Echo Amusement Park. National Register of Historic Places Inventory – Nomination Form.

NPS. 2001 (February). Final Management Plan/Environmental Impact Statement. Glen Echo Park. Montgomery County, Maryland.

NPS. 2011. Glen Echo Park-Clara Barton House Cultural Landscape. Cultural Landscapes Inventory.

NPS. 2015a. Clara Barton Parkway Cultural Landscape. Cultural Landscapes Inventory.

- NPS. 2015b. National Register of Historic Places Registration Form, Chesapeake and Ohio Canal National Historical Park Historic District (Additional Documentation & Boundary Increase, 2015).
- NPS. 2016. Procedural Manual #77-1: Wetland Protection. Available [https://www.nps.gov/subjects/policy/upload/PM-77-1\\_6-21-2016\\_508.pdf](https://www.nps.gov/subjects/policy/upload/PM-77-1_6-21-2016_508.pdf). Accessed May 19, 2025.
- NPS. 2017. National Register of Historic Places Registration Form, George Washington Memorial Parkway (Additional Documentation).
- NPS. 2023. Glen Echo Park. Available <https://www.nps.gov/glec/index.htm>. Accessed May 27, 2025.
- NPS. 2023 (July). Rehabilitate the Clara Barton National Historic Site Cultural Landscape Report.
- NPS. 2025 (June). Glen Echo Park Crystal Pool Cultural Landscape Report Part I.
- Nortrup M. 2015. National Capital Region Network Resource Brief: Macroinvertebrates, George Washington Memorial Parkway. National Capital Region Network, Inventory & Monitoring <https://irma.nps.gov/DataStore/Reference/Profile/2222400>.
- The Maryland-National Capital Park and Planning Commission (MNCPPC). no date (n.d.). Montgomery County. Data Downloads. Available <https://montgomeryplanning.org/tools/gis-and-mapping/data-downloads/>. Accessed May 16, 2025.
- Wetland Studies and Solutions Inc. (WSSI). 2024 (January). Glen Echo Park Tree Management Plan.