CHESAPEAKE AND OHIO CANAL NATIONAL HISTORICAL PARK

Potomac, MD

National Park Service
U.S. Department of the Interior

GREAT FALLS AREA (MARYLAND) DEVELOPMENT CONCEPT PLAN

Final Report | January 2026

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EXECUTIVE SUMMARY

The Great Falls Area ('Plan Area') of the Chesapeake and Ohio Canal National Historical Park ('the Park') is one of the most popular and highly visited sections of the Park. Located approximately 30 minutes northwest of Washington, DC in Potomac, MD, this section of the Park is home to impressive natural resources such as rare plant communities, dramatic cliffs and quiet wooded areas, as well as a diverse and vast collection of cultural resources representative of the complex and unique role this place has played in both the transportation history and the history of the nation more broadly. Visitors enjoy the park's many recreational opportunities, from paddling the canal and dramatic falls of the Potomac River to cycling along the towpath or hiking through the woods. Its proximity to Washington DC and the thriving communities in Maryland and Virginia that comprise the metro area make it a popular destination, and generations of visitors have developed and maintained deep affection for this place.

This beloved and popular area within the Chesapeake and Ohio Canal National Historical Park has seen a steady increase in visitor attendance since the 2010s. During the COVID-19 pandemic attendance grew still further as more people from the surrounding areas sought opportunities for outdoor recreation. Annual visitation now sits around 800,000 people.

This increase in visitors presents a great opportunity for the park to reach more people, but comes with challenges and impacts to the overall experience of other visitors, as well as the natural and cultural resources that characterize this place. Long lines at challenging parts of Billy Goat Trail Section A, the Park's most popular hiking trail, may slow and disrupt visitors' experience of the dramatic views of the trail and falls. A proliferation of informal social trails makes it more confusing to navigate some sections of park while also threatening the habitat of rare plant communities. Crowded parking lots on high-visitation days can make visitor access challenging.

An increase in visitation has also seen a higher number of visitor safety related incidents. Rescues of underprepared hikers along the strenuous and exposed conditions on Billy Goat Trail Section A have increased, particularly on high-heat days. The adjacent Potomac River is a tremendous resource for boaters and anglers but its dramatic falls and currents are dangerous to inexperienced visitors. Crowded parking areas increase the potential for vehicle and pedestrian conflicts.

This planning process is an opportunity for a comprehensive review of visitation and management of the Great Falls section in an effort to improve the dual responsibilities of maintaining a high-quality visitor experience and promoting stewardship of the natural and cultural resources of the Park. The plan discusses the Desired Conditions for the area as defined by the Park staff, evaluates existing conditions and presents strategies and recommendations for capitalizing on opportunities, addressing observed challenges, and continuing progress toward the stated Desired Conditions.

Recommendations of the Plan range from small-scale and very specific (installing a water-bottle filler at the Comfort Station) to large and comprehensive (developing a unified signage language for the area and undertaking a comprehensive signage replacement for consistency and clarity). All are in service to the Park's goal of allowing for and promoting safe and enjoyable opportunities for recreation, education, and resource stewardship.

The Plan will not include the selection of a preferred alternative, but will identify a range of strategies and recommendations that would meet the desired conditions and goals of the plan. Further efforts to ensure compliance with NEPA and NHPA would be required to select and implement actions within the concept plan.

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BACKGROUND & PLANNING PROCESS

Purpose

The Great Falls Area of the Chesapeake and Ohio Canal National Historical Park is the most visited part of the Park due to both its diversity of unique natural and cultural resources and its convenient proximity to the Washington, DC metropolitan area. Annual visitation to this section of the Park has steadily increased during the 2000s, with dramatic growth during the COVID-19 pandemic to its current total of approximately 800,000 people per year.

While a growing number of visitors means exciting opportunities for new public engagement, it also puts a strain on the natural, cultural and staffing resources that make Great Falls such a significant and special place. These impacts are felt by visitors as they arrive and navigate the towpath, hiking trails and other recreational and cultural resources. They are also being observed throughout the area's natural plant and animal communities, as well as on the fabric of cultural resources.

Goals

The Plan and planning process has four goals.

1. Identify management strategies that promote the long-term stewardship of Park resources.
2. Continue to offer visitors safe access to high-quality National Park experiences.
3. Provide an appropriate range of Park facilities and services.
4. Proactively engage key Park partners, stakeholders, and the public.

GREAT FALLS AREA (MARYLAND) DEVELOPMENT CONCEPT PLAN

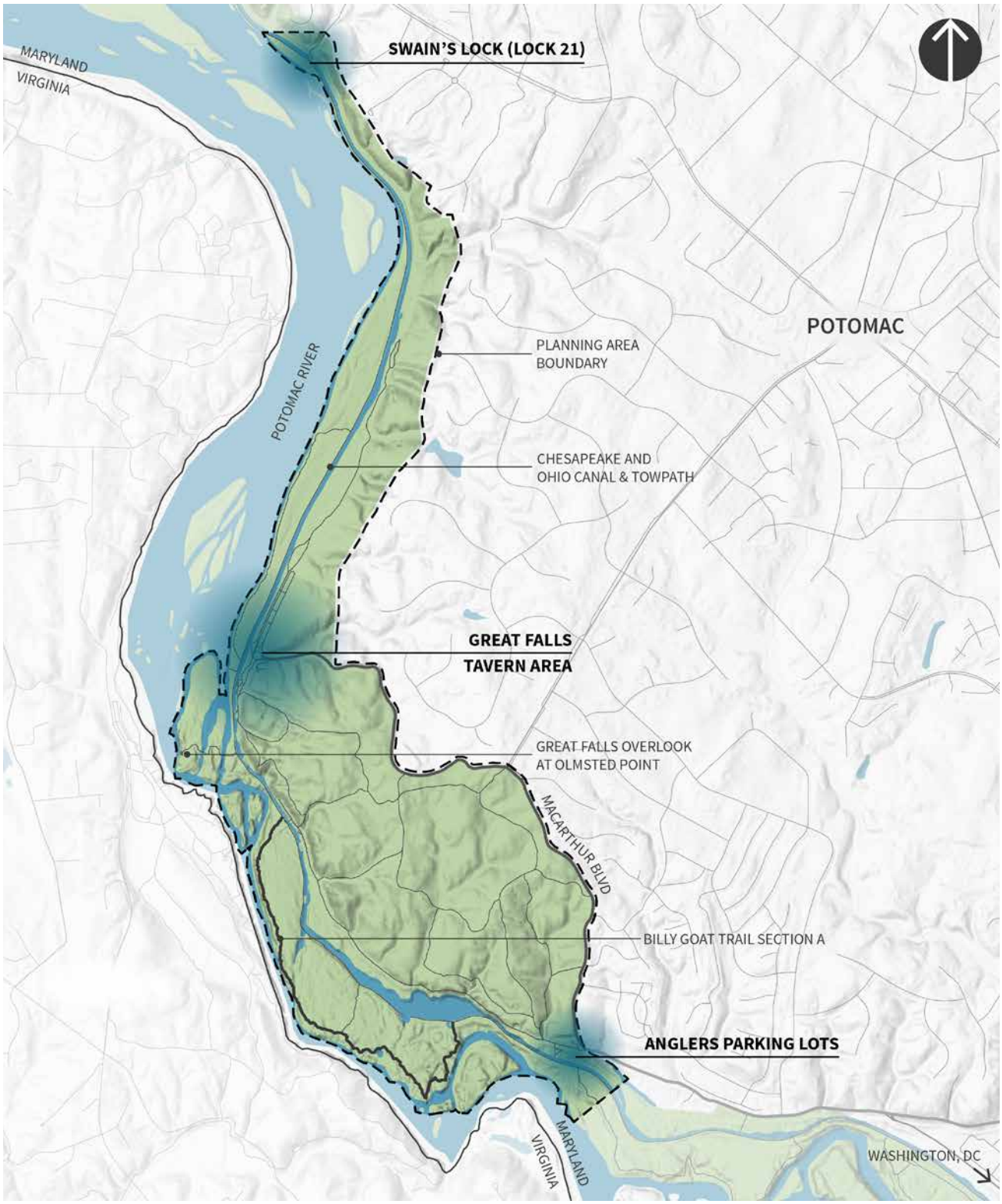

Figure 1: Project Planning Area Map (GWWO, 2025).

Planning Area

The Chesapeake and Ohio Canal National Historical Park extends approximately 184 miles along the length of the canal prism ('the canal'), from the start of the canal in the Georgetown neighborhood of Washington, DC to its northern terminus in Cumberland, Maryland. The focus area for this Plan centers around the Great Falls Tavern Visitor Center ('the Tavern'), as well as a number of other historic structures (see Figure 1). The Billy Goat Trail Section A and Great Falls Overlook are both popular natural features of the Park that are often accessed from the Great Falls Tavern Area ('Tavern Area').

To the south, the planning area is bounded by the Anglers Parking Lots, a designated parking area adjacent to MacArthur Boulevard, often utilized by boaters for its close riverfront access.

To the north, the planning area is bounded by Lock 21 (Swains Lock), containing both the historic Lockhouse 21, available for overnight stays, and the Swains Lock Hiker-Biker Campsite. A small access road and parking lot serve visitor access at this location.

The Park functions both as an interconnected ecosystem and a collection of individual nodes of which the Great Falls Area is one. Visitors can choose to travel the full length of the canal along the towpath, focus their time and attention on one of the multiple visitor centers along its length, or stop at any number of the historic areas, locks or communities along the towpath to experience the cultural and natural resources that define and connect these distinct places. While some conditions and recommendations considered in this Plan are local just to the Plan Area, others are impacted by activities happening nearby, but outside, the area. This combination of individual places connected by a shared infrastructure, narrative and use makes for some unique considerations when evaluating recommendations for the future of this area.

With that in mind, discussion and recommendations included in this Plan are limited to the study area described above.

Figure 2: Mule-Drawn Canal Boat Ride (NPS/Russ Kennedy, 2016).

Plan Focus Areas

The Plan process and document are framed around a series of six primary focus areas, as a lens through which existing conditions, priorities and recommendations are evaluated and developed. These focus areas are as follows:

Visitor Experience

Visitation across Chesapeake and Ohio Canal National Historical Park has risen from approximately 3 million to 5 million annual visitors over the past 15 years. Annually millions of history enthusiasts, hikers, bicyclists and runners enjoy the canal's towpath, originally built for mule travel (see Figure 2). Watered sections of the canal provide additional recreational access for canoeists, boaters, and anglers. The Great Falls Area is the most heavily visited site within the Park with approximately 800,000 annual visitors and is the Park's primary interpretive and educational center.

The Great Falls Area of the Park is a nexus of many overlapping historic narratives and serves as a primary gateway for education and interpretive programming. A canal boat operates from the Tavern. There is access by way of a boardwalk to Great Falls Overlook, a popular view of the falls which many come to see. Millions of hikers and bikers use the towpath through the site. Approximately 150,000 visitors annually come to hike the challenging and beautiful Billy Goat Trail Section A. The river and canal attract anglers, rafters, and kayakers. There are remarkable engineering features and canal-era historic structures. The site also includes Park staff housing and other operational functions.

Resource Management

The Great Falls Area contains an array of remarkable cultural resources including canal-era structures such as the historic canal, towpath, lockhouses, and lift locks, as well as the Engineer's House and Tavern. The area also contains archeological resources including petroglyphs. The canal is a unique piece of transportation infrastructure that offers both interpretive and recreational opportunities to visitors. Maintaining water in the canal (or a portion thereof) and functioning locks is an important feature for visitors of all kinds.

Bear Island, home to Billy Goat Trail Section A, contains more than 100 rare, threatened, and endangered plant species and globally rare plant communities, making this area one of the most biologically diverse in the National Park system. High and increasing visitation creates stress for endangered species, natural habitats, and geologically sensitive areas which can be negatively impacted by off-trail hiking caused by trail congestion or along informal social trails. Diverse, rare and endangered natural resources are critical to the health and character of the Great Falls Area of the Park. The Potomac River is a popular destination for paddlers, anglers and people looking to enjoy beautiful and dramatic vistas (see Figure 3). While many visitors access the Potomac River through the Park, safe and formalized access points would allow for recreation access while protecting the rare plant communities that thrive along the river.

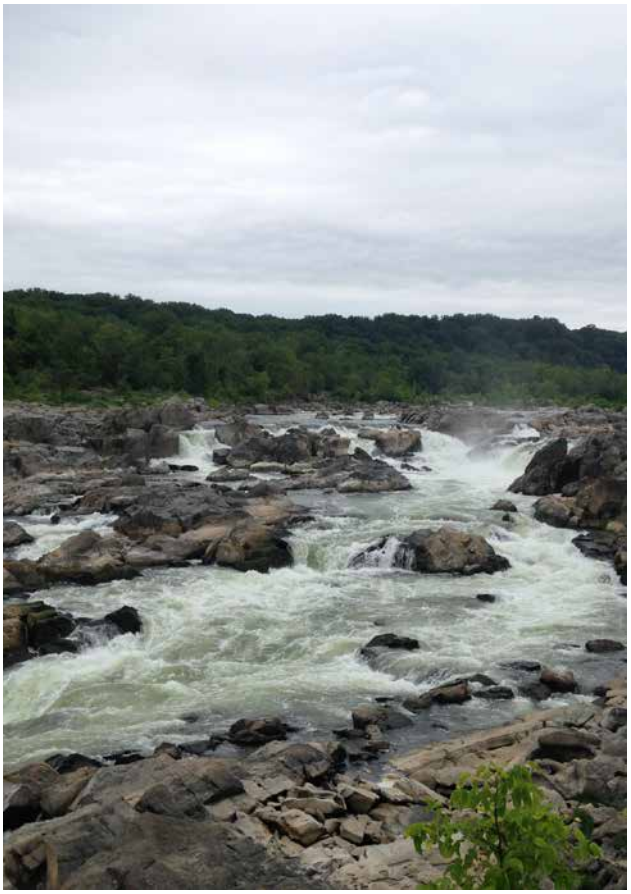

Figure 3: Great Falls from Olmsted Island Overlook (NPS, 2025).

Safety

There have been over two dozen fatalities in the Great Falls (MD) area since 2001, and each year hundreds of visitors are injured or require rescue on Billy Goat Trail Section A and from the adjacent Potomac River. Fatalities have resulted from drownings, falls, medical conditions caused by overexertion or heat, jumping into the canal or river, and other accidents. There have also been serious injuries and fatalities caused by conflicts among pedestrians, bicyclists, and vehicles along MacArthur Boulevard. The Billy Goat Trail Section A is a strenuous hike and sees approximately 150 trail evacuations and approximately 50-75 medical calls per year.

Parking and Traffic

Some congestion occurs at the Great Falls Tavern Visitor Center parking area, the Swains Lock Parking Area, and at the Anglers Parking Lots one mile south. At Great Falls, during the high season, congestion occurs most weekends. On the approximately 2 days when the lot is completely full, active parking management is required by staff. In the past, the 15 highest use days had congestion that resulted in 15-20 minute queues at the entrance station. As a result, the Park must actively manage traffic in the parking area as well as throughout the trail, towpath, and walkways. Some visitors use the Anglers Parking Lots on the southern boundary of the Plan Area because it is outside of the fee gate and a short walk to the popular trails . This parking area lacks formal organization, and can be disorganized and inefficient during high visitation periods. With increased visitation and recreational use, there is greater opportunity for visitor conflicts along the towpath and trail system and towpath users and vehicles along MacArthur Boulevard.

Accessibility

Much of the historic fabric of the Great Falls Area was constructed in ways that make it challenging to provide Architectural Barriers Act Accessibility Standards (ABAAS) compliant accessibility today, limiting the experience of the Great Falls Area for visitors with disabilities. The NPS is required to provide accessible experiences to visitors and employees pursuant to the Architectural Barriers Act (1968) and Section 504 of the Rehabilitation Act (1973), but must balance those with other Federal laws requiring historic, cultural and natural resource management (see Figure 4). The NPS will comply with ABA when making alterations to existing or creating new facilities or programming. The NPS will fully engage in processes to determine how accessibility will be achieved, including evaluating treatment options and determining how to balance accessibility requirements with natural and cultural resource protection. Improvements should be made to the greatest extent practicable to increase ABAAS compliance and accessibility for visitors of the broadest possible range of abilities. Programmatic accessibility should be provided in situations where full facility compliance is determined to be technically infeasible and where programmatic accessibility is determined to be an appropriate alternative.

Figure 4: Towpath Walking Trail (NPS/Jim Kerby, 2025).

The Park staff has considered core experiences of the study area as follows:

1. Experiencing the historic towpath and canal.
2. Viewing and experiencing historic structures within the study area.
3. Viewing the falls and cliffs along the Potomac River.
4. An overnight experience along the towpath and canal.

Some of these core experiences are already ABAAS compliant, such as experiencing the canal from the canal boat, experiencing some of the historic structures at the Great Falls Tavern Area, and an overnight experience at the historic Lockhouse 21 at Lock 21. Other core experiences could benefit from improvements in their accessibility, such as a broader experience of the historic towpath and further accessible experience of historic structures at the Tavern Area. Currently, there are no ABAAS compliant routes for experiencing views of the falls, cliffs and Potomac River that are character defining features of this area.

Historic Structures

A variety of historic structures exist throughout this area of the Park, contextualizing the interpretation of the complex history of this place (see Figure 5).

Disuse and vacancy are threats to any historic building and lead to deterioration. Identifying appropriate uses for these structures will help ensure their longevity while better serving the needs of the Park and its visitors. Reviewing the variety of structures, their conditions, and the needs identified by both the Park and the public during comment periods, there is opportunity to bring new occupancies to buildings currently vacant while reinvigorating others that may not be fully utilized. Of course, any uses in these historic buildings must be considered carefully against the impact to the historic fabric of the buildings themselves.

Figure 5: Great Falls Tavern Visitor Center (GWWO, 2022).

Planning Process

The planning process began in early 2023 with a listening session and site visit by the design team. Through an intervening series of monthly meetings with the Park staff, the design team reviewed existing conditions and developed preliminary concepts.

On August 28, 2023 the NPS opened a public comment period on Planning, Enviornment & Public Comment (PEPC) for solicitation of public feedback around the following questions:

- What activities and experiences do you seek in the Great Falls Area?
- What facilities and/or services would make you feel welcome or satisfied with your experience?
- What issues most interfere with your desired experience?
- Do you have other thoughts you would like to share with the project team?

At the conclusion of this public comment period on September 29, 2023, the design team summarized and reviewed these comments, which were used in conjunction with other gathered information to help guide the preliminary concepts of the plan. The comment summary and the comments themselves are included in Appendix A.

In January of 2024, the Park staff team met for a Desired Conditions Workshop, a reflective and collaborative process in which the Park develops a list of goals, or desired conditions, for the Plan Area to achieve. This workshop resulted in a list organized around the issue and opportunity areas that frame the plan and is discussed in the Desired Conditions section of this document.

Building on this effort, the design team held an Indicators, Thresholds and Visitor Capacity workshop in May of 2024 with the Park staff team, following the Interagency Visitor Use Management Council guidelines to review key issues associated with visitor capacity, identify potential strategies for addressing these issues and develop evaluation criteria that can be utilized to assess visitor impact and help guide implementation of strategies. The process and outcomes of this workshop are included in the Strategies & Concepts section of this document.

The preliminary concepts and strategies were shared with agency stakeholders and partners in a meeting forum, held at the Great Falls Tavern Visitor Center on August 21, 2024.

These concepts and strategies were then shared with the public during a public meeting held on June 26, 2025. A second public comment period was opened on PEPC for solicitation of public feedback that same day, and concluded on July 28, 2025. In addition to general feedback on the strategies presented, feedback was solicited on the following questions:

- Do you have comments, concerns or preferences related to management strategies proposed along Billy Goat Trail Section A?
- Which locations in the Plan Area do you currently use or would you like to use to access the Potomac River?
- Do you have other thoughts you would like to share with the project team?

As before, at the conclusion of this public comment period on July 28, 2025, the design team summarized and reviewed these comments, which were considered and utilized where appropriate to further develop and refine the concepts and strategies as they were developed into the plan. The comment summary and the comments themselves are included in Appendix C. This Plan reflects the discussions, insight, feedback and recommendations gleaned from the above process.

DESIRED CONDITIONS

In early January 2023, the Park staff developed a Desired Conditions statement to provide a framework to help guide evaluation of existing conditions and the objectives of strategies and recommendations developed during the planning process. During the course of a daylong workshop held at the Park Headquarters on January 31, 2023, the attending Park staff were broken up into groups and asked to evaluate and discuss what the Park should look like in 10 years. Their discussions were divided into similar topics as the Plan Focus Areas, with further specificity in some cases:

- Natural Resources
- Cultural Resources
- Visitor Experience
- Visitor Activities
- Facilities
- Services

The session ended with each group sharing their discussion on these topics with the whole staff. Following this workshop the group facilitators took all the generated notes and discussion, processed them into a formal record and then utilized them to develop the list of Desired Conditions for the Park which is listed below.

In conjunction with discussions with Park staff and other information, the design team utilized these Desired Conditions in three primary ways. First, they served as a rubric by which to evaluate the existing conditions found within the Plan study area. Second, they served as a target at which to focus strategies and recommendations based on those existing conditions. Finally, they again were utilized as a rubric for evaluating the appropriateness of those strategies and recommendations prior to their incorporation in the Plan.

While there are many factors that will contribute to the character of the Park over the course of the next ten years and beyond, the review of the existing conditions and recommendations of strategies included in this Plan are largely focused on providing a pathway for the Park to achieve those elements of the Desired Conditions Statement that are not currently in place today, and to help maintain those that are.

Desired Conditions

The following text is a summary of the Desired Conditions official work session record.

Natural Resources

- Recreational access is appropriately managed so that healthy ecosystems that support globally rare and diverse plant communities are sustainable.
- Visitors can immerse themselves in the natural environment and enjoy natural features, views, and soundscapes associated with towering hardwood forests and rushing water without degradation from congested trails or landscapes.
- Unique and sensitive natural resources, including some of the most diverse plant communities in the NPS and exposed bedrock outcrops, are protected and restored. Ecosystems experience minimal degradation through social trail creation, vegetation trampling, litter, spread of invasive species, and other resource impact behaviors and stressors.
- Visitors can learn about and appreciate wildlife from a safe distance, with interactions between humans and wildlife minimized.
- The water quality, to which much of the visitor experience is centered on, should be maintained to provide safe recreation opportunities.

Cultural Resources

- Education and interpretive programs focus on raising public understanding and appreciation of the people that have been drawn to the area for thousands of years and the landscape they lived, worked, and traveled through. The historical use of the area, first by Native American Tribes, then by dedicated canal builders, captains, and crews, and into the modern age when citizens of all ages and backgrounds served as catalyst for establishing this park to preserve our nation's transportation history, reflects the breadth of visitors to the park today. The rich history of the site allows for many stories to be told and for visitors to be able to see themselves reflected in these stories.
- Visitors can experience a watered canal and functional lock, one of the most intact and impressive surviving examples of the American canal-building era. Visitors can step back in time and learn about the important transportation corridor that provided coal, mail, and other supplies to cities and towns along its length.
- The cultural resources of the area represent a larger national story – that of immigration, colonization, and industrialization. Petroglyphs, colonial sites, Civil War artifacts, the C&O canal itself, artifacts from the days of prospecting and mining should all be protected while still allowing visitors to experience them in such a manner that they can appreciate the history of the area.

Visitor Experience

- Great Falls is the interpretive center of the Park. Visitors can expect to see a uniformed presence in front country areas and access to high quality information, orientation, and a range of accessible interpretive and educational experiences.
- Visitors can expect to have high levels of social interaction; however, there are still opportunities for visitors to experience solitude when they choose to explore different trails / areas or go during quieter times.
- Visitors have a sense of arrival to a national park at site entrances. Navigational aids such as wayfinding and trail markings intuitively guide visitors to amenities and destinations while blending in with the historic landscape.

- Visitors will have opportunities to be immersed in nature and experience refuge from the urban sprawl while remaining in designated use areas.
- Visitors have the information they need to choose an experience that is appropriately fitted to their fitness level and adventure skill sets, and that is safe and enjoyable. While this is a park in the middle of an urban setting, visitors can have new, exciting, and challenging experiences that build their outdoor recreation skills and that they may not encounter in other nearby green spaces.
- Visitors, who may initially be drawn to the Park for its natural resources, can also learn about the cultural and historic resources. Through the appropriate historic preservation of the canal and iconic buildings such as the Great Falls Tavern, visitors can experience the history of the area in its modern-day context.

Visitor Activities

- Hiking, biking, walking, running, boating, camping, climbing, picnicking, sightseeing, birdwatching, and fishing.
- Foraging and e-bikes are allowed, with stipulations.
- Large groups are allowed at times, with permits and stipulations.

Facilities

- Interpretative signs, waysides, and exhibits.
- Visitor center
- Parking
- Maintenance and Administrative buildings.
- Boat access
- Food concessions (to the extent that it is appropriate for the area).
- Restrooms / comfort stations, potable water stations.

Services

- Interpretive programs
- Boating outfitters (kayaking, rafting) that supply gear, and teach instructional classes.
- Climbing outfitters
- Bike tour groups
- Access for emergency services, Preventative Search and Rescue (PSAR).
- Bike loaner program
- Trail appropriate wheelchairs for the Towpath. Accessibility services.
- Overnight accommodations in a historic building, such as the Canal Quarters – partner-run stay in a historic lockhouse – Swains.

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EXISTING CONDITIONS & OBSERVATIONS

The design team undertook an evaluation of existing conditions within the Plan Area to develop a baseline understanding of the area to utilize as a comparison against the Desired Conditions document (see summary in Desired Conditions section). This evaluation incorporates a combination of design team observations from site visits during the planning process, information gathered from discussions with Park staff, and understanding of visitor use and concerns gathered from public comments. Due to the nature of the planning process the evaluation is high-level in nature and did not involve extensive data collection or survey. These existing conditions were evaluated and discussed within the framework of the Plan Focus Areas.

Visitor Experience

The Great Falls Area of the Chesapeake and Ohio Canal National Historical Park is a much-loved section of the Park with a long history of dedicated visitors. Long standing recreational uses such as hiking, paddling and cycling are integral parts of how visitors spend their time in this place, while others come to appreciate and learn from the long and unique history of the place. These uses, along with the patterns of arrival and movement by visitors throughout the Park, have evolved with the growing number of visitors. Recreation, interpretation and visitation more broadly are critical aspects of the management of the Park, and reviewing the issues and impacts to the visitor experience associated with larger visitation will provide opportunities to maintain and improve upon that experience for the future. Based on the Desired Conditions developed by the Park, the information provided by the Park staff and public comments, this evaluation of existing conditions of the visitor experience focused on access to food and water, recreational opportunities, visitor activities, and availability and quality of overnight experiences available in this part of the Park.

Consistent Access to Potable Water & Supplies

Visitors to the Great Falls Area of the Park currently have only one option of accessing food during their visit: food truck vendors. During the COVID-19 pandemic, the National Capital Region implemented a regional food truck contract to provide food sales to visitors. This program has had varied success but primarily suffers from two challenges. First, unreliability of food truck arrivals sometimes led to delayed starts or lack of food availability. This is generally understood to stem from natural fluctuations in park visitation making low attendance days less desirable for food truck vendors. Second, the type of food truck often limited visitor's available options as ice cream vendor was frequently the only available food truck to come to the Park.

The concessions program operated out of the historic Concessions Building had been closed since 2020. Beginning in 2024, the Park restarted this program on a limited basis to provide food concessions to visitors. It is understood that they intend to expand this as feasibility and demand allows.

While the food truck program and concessions provide options for visitors, they are only available intermittently. Both Park staff and the public have voiced a desire to have more consistent access to some type of food during hours the Park is officially open.

Potable water availability is also important for this portion of the Park, especially given some of the more strenuous activities that can take place on high-heat days in the popular summer visitation period. Currently potable water is available at a water fountain located on the Comfort Station near the Great Falls Tavern Visitor Center. While infrastructure limits the potential installation in other areas of the Park, adding bottle filling stations at the Tavern Area would improve ease of access and availability for visitors.

Recreational Opportunities & Visitor Activities

The Great Falls Area of the Chesapeake and Ohio Canal National Historical Park is notable for the variety of recreation and educational opportunities it affords visitors. Hiking, jogging, and walking are available along many trails, as well as the historic canal towpath, where biking is also a popular activity. Educational opportunities that are available to visitors include, but are not limited to, canal boat tours, historical programs, and field trips. Many bikers use the towpath in a short-distance local capacity, while others will bike or hike the full extent of the towpath from its beginning to end, utilizing the many camp sites along the way to stay overnight. The Park has a trail-appropriate wheelchair loan program that makes experiencing the towpath more accessible to many visitors with limited ability.

Portions of the canal and the adjacent Potomac River are both used for boating by visitors of many skill levels. Finally, there are also some popular rock climbing areas in the cliffs along the Potomac, though the majority of these occur outside the planning area. The river and surrounding area also afford opportunities for fishing, birdwatching and general sightseeing of this dramatic and diverse natural area.

Much of these recreational activities are currently only available to visitors with their own equipment or those who have rented it elsewhere. While there was previously a bike share program in operation at this part of the Park, it has since closed due to logistical challenges and a shift to using concessionaires for recreational rentals. Those wanting to recreate in the Park but without their own equipment such as a bike or boat must seek rentals from vendors outside the Park.

Overnight Experiences

While there are many opportunities for overnight experiences along the full length of the Park, there are only two located within the Plan Area itself. The first is the ‘hiker and biker’ campsite at Lock 21 (Swains Lock), intended to provide easy camping for hikers and bikers undertaking multi-day excursions along the towpath. Similar to others like it along the towpath this site is non-reservable and available on a first-come, first-served basis, which facilitates ease of use by these groups. Unlike many other ‘hiker and biker’ campsites along the towpath, the Lock 21 (Swains Lock) site is very close to a densely populated suburban area. This proximity, combined with its non-reservable nature, has led to the site being used on an ad hoc basis as an easy camping location for users from the surrounding area resulting in crowding and congestion. While this camping area is not intended to have cars associated with it due to its orientation towards hikers and bikers arriving along the towpath, use from nearby communities often means visitors arrive by vehicle and park in the small lot across the canal, sometimes crowding the available spaces.

The second overnight opportunity is the historic lockhouse located at the same Lock 21 (Swains Lock) area, available for overnight rental through the Canal Quarters Program and operated by NPS partner, the C&O Canal Trust. This is a historic lockhouse that has been renovated and upgraded for overnight rental use and is available for reservation by the public. It includes available accessibility accommodations for people with disabilities. Dedicated parking is provided for overnight users of this lockhouse in the immediately adjacent lot. The small size of this lot, coupled with unrestricted vehicles from the nearby campsite, has resulted in these reserved spaces being blocked or unavailable for visitors.

Resource Management

Cultural Resource Protection

This area of the Park is home to many remarkable cultural resources, from the canal and towpath, to lockhouses, lift locks, and other historic structures. The Park staff has undertaken major efforts to restore, rehabilitate or preserve historic structures, including repairs to the canal and towpath, major stabilization projects, and routine maintenance of the towpath, trails, and historic buildings. Although canal infrastructure and historic buildings are stable, continued maintenance and routine repairs are critical. While maintaining water throughout the entire canal is infeasible, maintaining a portion of this infrastructure and functioning locks is an important feature for visitors of all kinds. Further discussion related to historic structures can be found below in a dedicated section.

Natural Resource Protection

Several parts of the Plan Area contain rare, threatened, or endangered species, including globally rare plant communities, making this area one of the most biologically diverse in the National Park system. The diversity of rare and endangered natural resources found in the Plan Area are critical to the health and character of the Great Falls Area of the Park. Bear Island, for example, home to Billy Goat Trail Section A, contains more than 100 rare plant species. As discussed further in the Indicators, Thresholds, and Visitor Capacity (ITVC) section, high and increasing visitation can create stress for these rare or endangered species, as well as for natural habitats and geologically sensitive areas. These natural resources are often located close to the trails and are therefore easily impacted negatively by visitors' off-trail hiking behavior that is typically caused by trail congestion, as well as hiking along informal social trails. Often this off-trail hiking behavior is motivated by a desire to avoid difficult trail sections, such as the Traverse on Billy Goat A. As a result, visitors have created informal social trails throughout the area. A 2010 study of off-trail hiking behaviors on Bear Island found that the most common motivations for hiking off-trail were to get to a scenic vista or take a photo (50.7%), to avoid or pass others (45.4%), or because of poor or challenging trail conditions (43.0%)[1].

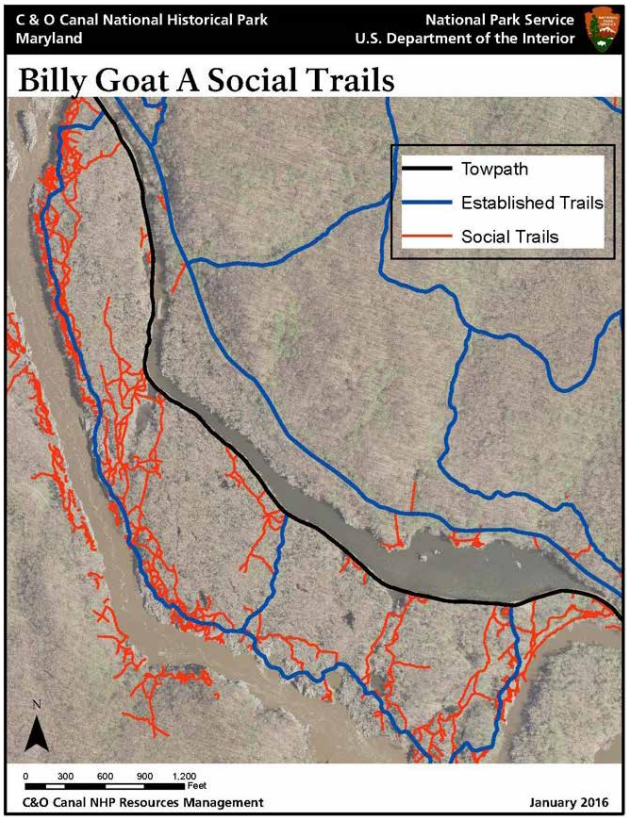

Figure 6: Billy Goat A Social Trail Map (NPS, 2016).

Impact of Informal Social Trails

The Potomac River is a popular destination for paddlers, anglers, and people looking to enjoy beautiful and dramatic vistas. There are no formally designated river access trails in the Plan Area. Visitors use a variety of informal access trails between the towpath and the river's edge, some of which threaten the plant communities that thrive along the banks (see Figure 6). Informal social trails also cover a large portion of the woods between MacArthur Boulevard and the Park, as well throughout the Bear Island area, as mentioned above.

Other resource management concerns in the Plan Area include erosion. Heavy foot traffic causes erosion, which is then worsened by the more frequent and severe flooding that currently exists in the area. Portions

of the Billy Goat Trail Section A, for example, are regularly underwater because of high river flows. These conditions, coupled with heavy visitation, exacerbate erosion on and along the trail. In the past, temporary trail closures during high river flows have been necessary for visitor safety (see Figure 7). While trail repairs have been made in some areas to address the erosion, such repairs have not been comprehensively implemented.

Figure 7: Billy Goat Trail Section A, Closed Section Signage (VHB, 2024).

Safety

Several factors contribute to the existing condition of visitor safety in the Plan Area. Safety concerns include both river-related and upland areas. Each year visitors are injured or require rescue on Billy Goat Trail Section A and from the adjacent Potomac River.

Billy Goat Trail Section A

The Billy Goat Trail Section A is a strenuous hike and sees approximately 150 trail evacuations and approximately 50-75 medical calls per year (see Figure 8). One factor is that unprepared hikers often underestimate the exposure of Billy Goat Trail Section A during hot weather, fail to bring enough water, and subsequently experience heat-related emergencies. On high heat days, the trail system in the Plan Area experiences dozens of heat-related injuries, emergencies, and rescues.

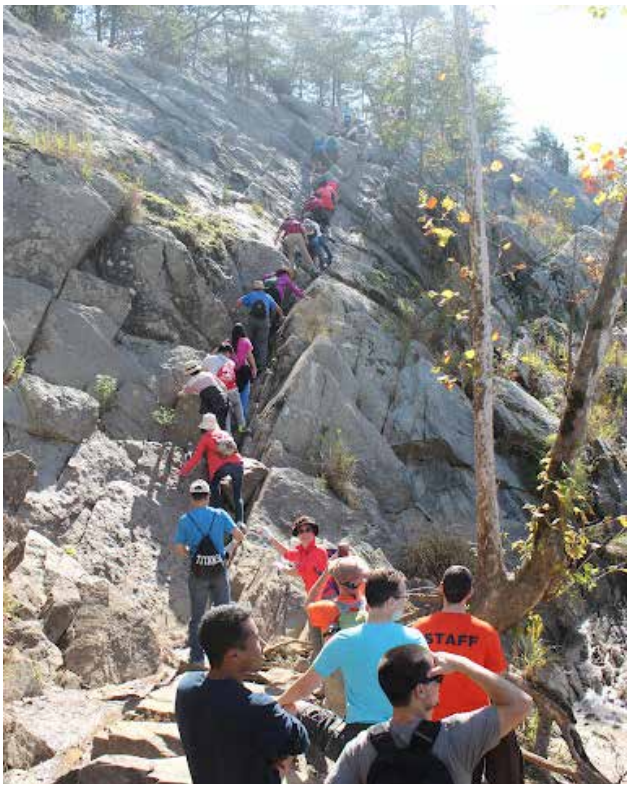

Figure 8: Billy Goat Trail Section A Traverse (Alexis Herr, 2015).

Potomac River

The geography of the Potomac River is one of the defining features of this area of the Park but also contributes to safety concerns. While rapids, falls and whitewater features are enjoyed by both visitors observing from the shore and paddlers navigating the river, these conditions are dangerous for those who are unprepared for them. Despite warning messages and attempts to increase preparedness of recreational users and improve search and rescue access and response, safety issues remain. Swimming and wading are strictly prohibited because of the swift and potentially deadly river current. Many visitors ignore warning messages along the shore and continue to enter the water, particularly on warm days, resulting in many water rescues each year.

Uncontrolled parking and a lack of formalized river access have also contributed to safety issues on site. There are currently no formally designated or maintained river access points within the Plan Area; water access users put in at various points, which are concentrated adjacent to parking areas at Great Falls and Anglers Parking Lots. The primary emergency access point for first responders is the boat launch at the Anglers Parking Lots. However, since visitors also use the Anglers access point to launch their personal watercraft, visitor vehicles with trailers routinely park in the emergency access lane, blocking it and increasing emergency response times. An additional parking-

Figure 9: Confusing and Cluttered Trail Signage (VHB, 2023).

related current safety concern is that visitors park along the narrow shoulders of MacArthur Boulevard when lots fill or to avoid fees, which has created safety conflicts and led to injury and fatal accidents.

Finally, confusing, cluttered, and inconsistent signage, often in various states of disrepair, also contributes to existing safety concerns in the Plan Area (see Figure 9). Inadequate wayfinding can contribute to visitors' confusion on both Billy Goat Trail Section A and in accessing the river at appropriate points. Safety signage warning of undertows, rocks, and other river concerns are in need of improvement and clarity. Similarly, the signage alerting visitors to the demanding nature of the Billy Goat Trail Section A hike, which includes challenges related to steep grades and heat, is insufficient.

Parking & Traffic

Many visitors' experience of the Great Falls Area of the Park begins with arrival by car. This section of the Park contains three parking lots, the main lot at the Great Falls Tavern Area, the smaller lot at Lock 21 (Swains Lock) and the more recently added, somewhat informal Anglers Parking Lots. Each of these lots tends to see different types of users, though all of them are utilized as access points for visitors. With higher visitation these lots see greater traffic, congestion and in some cases suffer from a lack of formalization. This evaluation of existing conditions at these lots (and in some cases their approaches) focused on those elements that are critical to the visitor experience, including circulation, safety, efficiency, and flow.

Tavern Area

It is understood that during peak times of park demand, the Great Falls Parking lot can reach capacity. As a result, traffic can queue along the Park Entrance Road waiting for space to open. The existing access intersection of MacArthur Boulevard at Falls Road features a three-leg (T intersection) configuration where the Falls Road approach features the only stop control (see Figure 10). Potential park visitors would not be able to easily turn around at this location if they are alerted to the fact that the parking lot is full.

Great Falls Parking Area

The Great Falls Parking lot potentially fills quickly during peak park visitor periods (see Figure 11). This in turn causes traffic congestion and queuing along the Entrance Road (see Figure 12). There currently is inadequate shoulder space along the Entrance Road to allow for passing or any potential U-turns. Due to factors such as adjacent environmental features, topography, utility infrastructure, and configuration of adjacent waterways, further widening of the Entrance Road is likely not feasible.

Figure 10: MacArthur Boulevard Park Entrance Intersection (Google Maps, 2023).

Figure 11: Great Falls Parking Area (Google Maps, 2016).

Figure 12: Great Falls Parking Entrance Station (NPS, 2025).

Anglers Parking Area

The existing Anglers Parking Lots, referenced as Upper, Middle, and Lower Lot, each feature a gravel parking area with no formalized parking stalls (see Figures 13-15). While the parking can occur in an efficient manner, errant vehicles can also significantly reduce the capacity or block other vehicles' access.

Swains Lock Parking Area

The existing Lock 21 (Swains Lock) is an unstriped gravel parking area (see Figure 16). Often parking can occur in an efficient manner, however, on occasion vehicles can be parked in ways that reduce the maximum capacity. A portion of the Swains Lock Parking Area is intended for overnight guests of the on-site lodging. However, these dedicated spaces are sometimes utilized by daytime park patrons.

Figure 13: Anglers Parking Area - Upper Lot (GWWO, 2023).

Figure 14: Anglers Parking Area - Middle Lot (GWWO, 2022).

Figure 16: Swains Lock Parking Area (GWWO, 2023).

Figure 15: Anglers Parking Area - Lower Lot and Emergency Vehicle Access Road (GWWO, 2022).

Accessibility

Issues & Opportunities

Much of the historic fabric of the of the Great Falls Area was constructed in ways that make it challenging to provide Architectural Barriers Act Accessibility Standards (ABAAS) compliance today, potentially impacting the experience of the Great Falls Area for visitors with disabilities. These conditions range from the composition, width and grading of the towpath, to the proximity of parking areas and circulation through historic structures.

The Park staff has considered core experiences of the study area as follows:

- Experiencing the historic towpath and canal.
- Viewing and experiencing historic structures within the study area.
- Viewing the falls and cliffs along the Potomac River.
- Overnight experiences along the towpath and canal.

The current level of ABAAS compliance for these core experiences is discussed below. It is based only on site observations and limited field measurements. Formal topographic survey and other measurements must be completed prior to pursuing any improvements.

Experience the Historic Towpath & Canal

The canal, and the towpath running beside it, are the infrastructural history that forms the interpretive center of the Park, and the opportunity to experience them firsthand is considered a core experience of this Plan Area. Both of these structures are present along the Park's full length, from Georgetown in Washington, DC to Cumberland, Maryland. Evaluating each for ABAAS compliance involves two components:

1. Evaluating the compliance of the structures themselves.
2. Evaluating the compliance of access to the structures.

Beginning with an evaluation of the structures themselves, each presents a different condition. A full experience of the canal would include the ability to ride along it in a boat or craft. While this may be difficult for all visitors to achieve in a smaller craft like a kayak or a canoe, the historic Canal Boat provides rides available to the public when the canal is watered. For visitors in wheelchairs or otherwise unable to climb up to the boat, a lift is available.

The towpath runs alongside the canal, originally serving as a walkway for animals pulling the canal boats, and more recently, as a recreational and circulation spine for the Park. While generally flat and smooth, the towpath in this area, and along its entire length, is only tenuously ABAAS compliant subject to adequate maintenance and upkeep. Visitor use and erosion can degrade this surface causing it to be less flat and stable than would be considered fully-compliant. Both conditions can be addressed as the need arises. In addition to the smoothness and stability of the towpath surface itself, there are portions of it associated with locks in the canal and other natural features that may have slopes in excess of the limits allowed by ABAAS.

Regarding access to these structures, there are three primary points for visitors to get to the towpath and canal:

1. At the Great Falls Tavern Area.
2. From the parking lot near Anglers Inn.
3. At the parking area associated with Lock 21.

Figure 17: Wooden Ramp Spanning over the Canal (GWWO, 2023).

Figure 18: Accessible Parking Signage, Anglers Parking Area - Lower Lot (Google Maps, 2025).

The Great Falls Tavern Area is the most prominent of the three and provides ABAAS compliant access for visitors to experience both the canal and towpath. Visitors can experience the canal and historic Lock 20 from a paved walking surface, which leads to wooden ramps spanning over the canal to the towpath that appear to be ABAAS compliant (see Figure 17). The boarding point for the Canal Boat is also located here, just beyond the Tavern. The distance from the accessible parking spaces to Lock 20 is approximately 1000'.

At the south end of the study area, access to the towpath and canal from the various Anglers Parking Lots is either by steep pathway or steps traversing the differences in grade. Neither of these routes are ABAAS compliant, and achieving full compliance at this location is unlikely given the conditions. That said, there is signage for accessible parking in the parking area closest to the towpath, which could provide better accessibility to a person in a trail-appropriate wheelchair (see Figure 18). The distance from these spaces to the towpath in this location is approximately 400'.

Finally, the smallest of the three access points is located at the north end of the study area at Lock 21. The parking area here is the smallest of the three and serves access to the towpath and overnight users of the Swains Lockhouse. Similar to the Great Falls Area, this access point is located adjacent to a historic lockhouse (Swains Lockhouse) and a lock (Lock 21), as well as the canal and towpath. While much smaller than Great Falls, this parking area is immediately adjacent to the canal, such that visitors can drive within approximately 100' of the canal and lock, both of which are readily visible from the parking area. While the path across the canal and lock to the towpath likely do not meet the criteria for full ABAAS compliance, the proximity of access to these elements makes them more accessible to a broader array of visitors.

Experience the Historic Structures

In addition to the Canal and Towpath discussed above, the Great Falls Area of the Park is home to a variety of other historic structures that can generally be grouped into two categories. The first category includes the support structures associated with the historic canal and are critical to its functionality and understanding – most notably the locks and lockhouses. The study area contains the seven historic lock structures (Locks 15-21). Of these, Lock 20 is located along an ABAAS compliant route at the Tavern, and Lock 21 is located immediately adjacent to the Swains Lockhouse parking area, making it relatively easy to access though not fully ABAAS compliant. Other locks are located further along the towpath and are not immediately accessible via ABAAS compliant routes.

The study area contains three extant buildings. The first, the Tavern, is open to the public as a Visitor Center for the Park. Access to and through the Visitor Center portion of this building appear ABAAS compliant based on our observation. The second is Swains Lockhouse located at Lock 21, which is available to the public for overnight stay by advanced reservation through the Canal Quarters program. Swains Lockhouse can be made ABAAS compliant for guests if requested in advance. The third lockhouse is located further along the towpath and is not accessible by the public.

The second category includes other historic buildings not directly associated with the canal and towpath, but relevant to other periods of the park history. Within the Plan Area these structures are clustered around the Tavern Area and were largely constructed by the Civilian Conservation Corps (CCC) during the Great Depression as improvements to the operation and visitor experience of the park. While many of these structures are currently closed to the public, their proximity to parking and location along ABAAS compliant sidewalks provide accessible approaches for visitors to view them. These structures include the Boiler House, the Old Comfort Station, the Pump House and the Concessions building. Further discussion of these structures, their condition and potential uses is included in sections below.

Experience the Potomac River & Falls View: Great Falls Overlook

The striking character of the Potomac River within the extents of the study area give this place its name and views of the dramatic falls are a core experience of this portion of the Park. While many views of these falls in this area exist along the length of the study area, the most well-known is from the Great Falls Overlook. This overlook is located at the terminus of the approximately 0.3 mile long Olmsted Island boardwalk which traverses across Olmsted Island from the towpath, crossing a number of dramatic river features along the way (see Figure 19). The boardwalk itself is accessed from the towpath and is located approximately 0.3 miles south of the Great Falls Tavern Visitor Center.

Understanding accessibility and ABAAS compliance to this primary view involves three components:

1. The distance to the view from a parking area.
2. The character of the pathway being traveled.
3. The expectation and understanding of that journey.

The distance to this view from the parking area is approximately ¾ mile, a longer distance than is achievable for some visitors to cover. The character of the pathway being traveled can be understood in three components:

1. The segment from the parking lot to the towpath.
2. The segment along the towpath to the boardwalk.
3. The segment along the boardwalk to the viewing platform.

GREAT FALLS AREA (MARYLAND) DEVELOPMENT CONCEPT PLAN

Figure 19: Great Falls Overlook Area Map (GWWO, 2025).

The pathway from the parking area to the boardwalk is a stable and even concrete sidewalk and appears to have ABAAS compliant grading and slopes along its length. The ramps and bridge across the canal at Lock 20 also appear to be ABAAS compliant. As discussed above, the segment along the towpath is more tenuously ABAAS compliant, largely dependent upon the condition of the towpath surface. Rutting and erosion from rain and visitor use can make the surface difficult to navigate. Beyond this, some areas of the towpath may have greater slopes than are ABAAS compliant given the existing topography and navigation of the lock infrastructure. The final segment of the pathway travels along a boardwalk on the Olmsted Island and Overlook Trail. This boardwalk navigates rocky and varied terrain and addresses these changes in grade with both steps and ramps. Generally the boardwalk appears to be ABAAS compliant, both in its surface and its slopes.

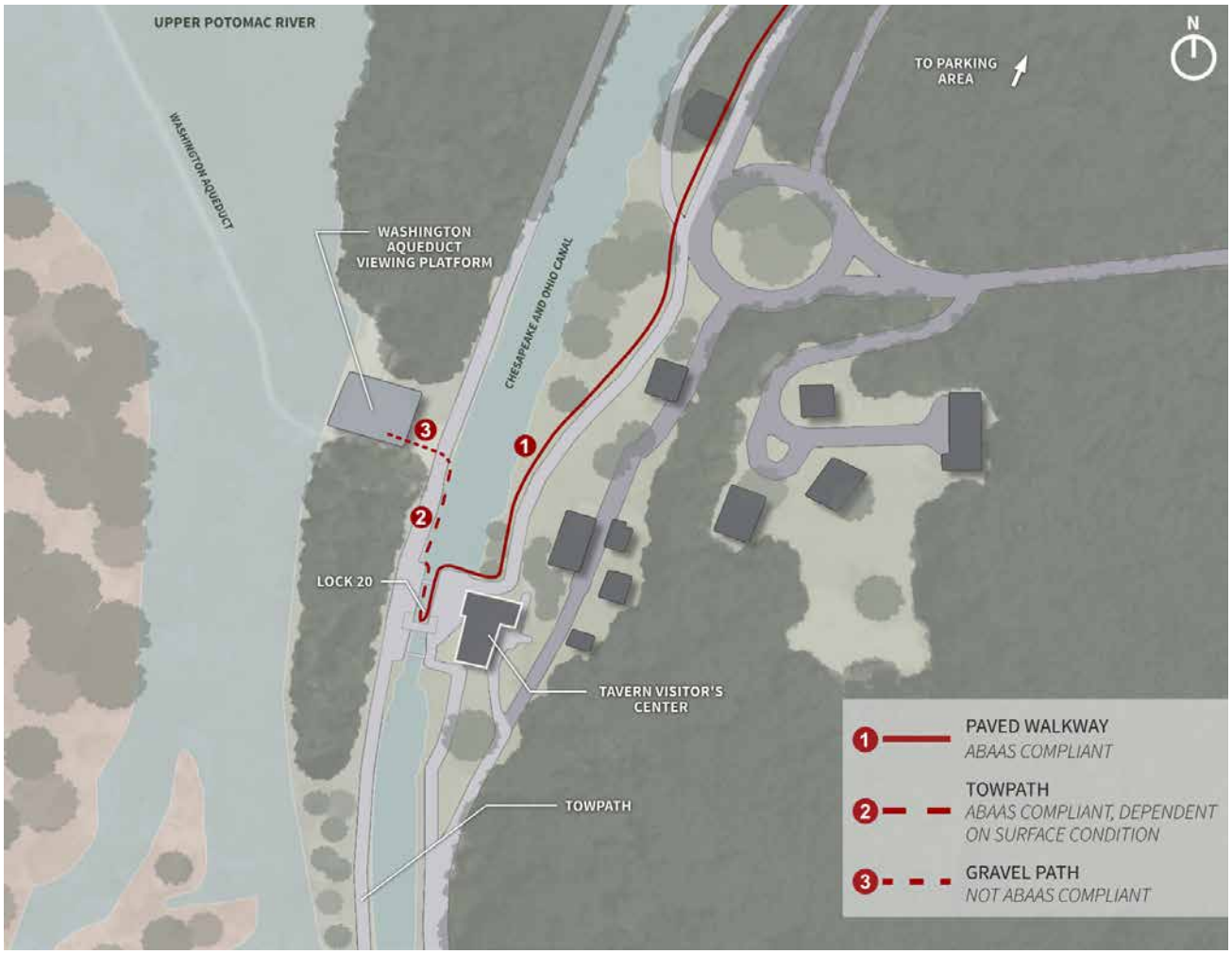

Figure 20: Washington Aqueduct Viewing Platform, Existing Conditions (GWWO, 2025).

Experience the Potomac River & Falls View: Washington Aqueduct Viewing Platform

An additional opportunity for viewing the Potomac River and Falls is located immediately across the canal from the Great Falls Tavern Visitor Center at the Washington Aqueduct Viewing Platform. This platform forms the roof of a building owned by the Army Corps of Engineers that serves as part of the Washington Aqueduct system. The platform sits above the grade of the towpath by a few feet, and is connected to it by a pair of gravel pathways. Visitors accessing the platform can do so from the Great Falls parking lot by following the sidewalks to the Lock 20 bridge and traveling approximately 200 feet north along the towpath (see Figure 20). Currently, access to the viewing platform is not fully ABAAS compliant. As previously discussed, the towpath surface condition can vary based on maintenance. More notably, the pathway connecting the viewing platform to the towpath appears to be both too steep and not an even and stable surface making it difficult to navigate for people with disabilities, though this should be verified by a survey.

Experience an Overnight Stay

An overnight stay is also a core part of the visitor experience within the study area. There are two opportunities for such a stay within the bounds of the Plan Area, the Hiker Biker campsite at Lock 21 and Lockhouse 21. The Hiker-Biker campsite is located near the parking area for Lock 21, but is not ABAAS compliant. Lockhouse 21, available for overnight rental to the public through the Canal Quarters program, includes accommodations that are ABAAS compliant.

Historic Structures

The Park is home to many historic structures. From the towpath and canal to historic lockhouses to more recent, but still historic, structures from its early days as a National Park unit, the Great Falls Area of the Park is home to a dense grouping of these historic structures, making it a great resource for interpreting its history (see Figure 21). While some of these structures have been rehabilitated and are occupied, many others are currently without active uses. As with all buildings, these historic structures require routine maintenance. Without regular uses and visitation, maintenance needs and deterioration to these structures may go unnoticed for longer periods of time, leading to greater risk for more serious negative impacts. Based on an understanding that maintaining and utilizing these historic structures are a priority for the Park, this evaluation of existing conditions reviewed those structures most centrally located to the Great Falls Area and its functions and uses, considering their suitability for existing or alternate uses.

Among these structures, there is a cluster that is more public-facing, visible from the parking lot, and along the walkways to and from the Tavern Area (see Figure 22), and a cluster that is more private-facing, sitting atop a small hill above the Tavern, and accessible by a restricted access roadway, referenced as the Hill-Top Area (see Figure 28). These two clusters are reviewed and discussed separately for this Plan.

Figure 21: C&O Canal Lock 20 and Great Falls Tavern Visitor Center (NPS/Paul Graunke, 2025).

Towpath & Canal

As the namesake of the Park, the canal and towpath are two of the most defining historic structures of the entire Park. Running the full length of the Park they provide visitors opportunities for interpretation, recreation and connectivity to the various nodes and sections of the Park and surrounding communities.

The canal also serves both recreational and interpretational functions for the Park, with local paddlers utilizing watered sections of the canal along with the Potomac River to paddle loops through portions of falls, while historic canal boat rides offer visitors an in-person understanding of how this piece of historic transportation infrastructure really worked. Maintaining water in this portion of the canal that traverses the Plan Area is a priority for the Park and requires regular maintenance to both the canal itself such as dredging to address sediment collection, as well as maintenance to the support structures that serve it like the locks and wasteweirs that help maintain the water at desired levels and make the canal function.

In addition to a means of navigating the Park, the towpath is a recreational resource for hikers, bikers, runners, and more. A wide unpaved path with a fairly consistent low-slope, the towpath parallels the canal along its length. The unpaved character of this historic structure is a contributing part of the cultural landscape, but also makes it subject to issues of erosion and wear from extensive use, requiring routine maintenance and upkeep in order to remain a flat and stable surface for recreation.

Figure 22: Tavern Area Historic Structures Map (GWWO, 2025).

Tavern Area Historic Structures

Great Falls Tavern Visitor Center

The public-facing structures at the bottom of the hill are anchored by the Tavern building (see Figure 23). This masonry and wood frame building was originally constructed as a lockkeeper's house in 1828, with subsequent additions completed in 1831[2]. At various points from its construction until the time it was purchased by the NPS in 1938, the building has served as a lockkeeper's house, hotel, grocery, private club, and restaurant. Per the building's Historic Structures Report (2020), it is understood to be in fair to good condition. In addition to the Visitor Center located on the ground level of the Tavern, two larger spaces located behind it on the ground floor serve as classroom and interpretive spaces for the Park staff. The upper levels contain administrative office space and a meeting room for Park staff. While beset with the challenges of working within old buildings, the Visitor Center and interpretive spaces on the ground floor are understood to be functioning well. The administrative space on the upper level is functioning reasonably well, but additional space is needed. The current meeting room has limited capacity and is difficult to access. There is no ABAAS compliant pathway to the upper levels of the building. Additional information about this building's history and its current condition can be found in the Great Falls Tavern Historic Structures Report.

Figure 23: Great Falls Tavern Visitor Center (GWWO, 2023).

Boiler House

The closest historic structure to the Tavern is the Boiler House (see Figure 24). Built in 1951, this utilitarian concrete block structure with a plaster exterior finish was originally constructed as space for heating equipment serving the Tavern[3]. Though it has undergone some maintenance, upgrades, and minor renovations, it continues to serve that purpose. Additional information about this building's history and its current condition can be found in the Civilian Conservation Corps Structures Historic Structure Report.

Figure 24: Boiler House (GWWO, 2023).

Old Comfort Station

The Old Comfort Station sits immediately north of the Boiler House (see Figure 25). It is a wood framed building constructed by the Civilian Conservation Corps

Figure 25: Old Comfort Station (GWWO, 2022).

in 1941 to serve as a restroom building for this area of the Park. It is a simple, rectangular single story building of approximately 590 square feet, with two primary rooms of equal size divided by a partial demising wall between them. It was relieved of its original service as a comfort station with the construction of a modern facility in 2008 in a more prominent location along the main path to the Visitor Center. In 2017, the building underwent a renovation that included a roof replacement, window and door repair, and removal of the existing plumbing fixtures. It was modified for use as temporary storage and served subsequently as storage for the former Bike Loaner program. With that program no longer in operation, the building does not see regular use. Additional information about this building's history and its current condition can be found in the Civilian Conservation Corps Structures Historic Structure Report.

Pump House

Located north of the Old Comfort Station is the Pump House (see Figure 26). Also constructed in 1941, this structure is a complicated and interesting historic structure purpose-built for service as a water filtration system to provide potable water to the structures and visitors at the Park. Built into the side of the hill, this building is constructed of a concrete frame with exterior walls and comprises a below-grade 'clear well' vault, another below-grade concrete 'coagulating basin', and a interior concrete filtration trough and basin, as well as a variety of existing pumping equipment and piping associated with the structure's original use. While it is an interesting building, it's somewhat small size (approximately 16' x 24' overall above grade) coupled with its complicated interior layout for accommodating the original equipment, makes a change of use difficult. In addition to the remaining historic piping and pumping equipment, the building houses the electrical distribution panels and metering associated with power for the Tavern and other structures in this area. Additional information about this building's history and its current condition can be found in the Civilian Conservation Corps Structures Historic Structure Report.

Figure 26: Pump House (GWWO, 2022).

Concessions Building

Further north of the Tavern building and in close proximity to the parking lot stands the Concessions Building (see Figure 27). Designed in 1947 and built in 1953, it has served as a Concessions Building for the Great Falls Area of the Park since its completion. The Concessions building is located adjacent to the sidewalk that connects the parking lot to the rest of the nearby structures, and is a single-story, painted wood frame building, purpose-built for food service to park visitors. At some point after its construction, the building's original footprint and form were expanded, enlarging the area around the serving windows and changing the relationship of the existing walls to the roof overhang. Based on visual observations of the building's exterior,

Figure 27: Concessions Building (GWWO, 2023).

it is in need of substantial envelope repair, with much of the wood siding showing areas of deterioration, as well as the roof exhibiting signs of age and moss growth.

The exterior of the building is surrounded by a brick patio accessed from the sidewalk either by three stairs or a sloped walk. The patio is also in need of repair, as it has settled significantly around the building and is no longer flat. Improvements to the connection between the sidewalk and the patio are also needed to achieve ABAAS compliance.

Though the building was unoccupied for a period of time during the pandemic and into the start of this project, the Park has re-opened it for concessions use in a limited capacity during higher-traffic periods.

Hill-Top Area Historic Structures

The second cluster of structures is located further east from the canal and towpath. This cluster sits up the hillside and is screened off by trees, making it generally not visible or easily accessible to visitors (see Figure 28). Currently the structures in this group are either utilized for Park staff administrative, maintenance or storage purposes. This cluster is comprised of four separate buildings – the Engineer's House, the Davis House, the Nash House and the Engineer's Garage.

Figure 28: Hill-Top Area Historic Structures Map (GWWO, 2025).

Engineer's House

The oldest of these structures, the Engineer's House dates back to 1875 and was originally constructed as a residence for the Washington Aqueduct Gate House Engineer[4] (see Figure 29). Today, the building is unoccupied except for ad hoc storage usage in some of the spaces and a location for IT equipment serving several of the buildings in the area.

The exterior of the building is in need of general maintenance and limited repair, though currently appears to be in generally sound condition. More recent, localized repairs and remediation of deteriorated trim and windows is evident. It is likely that of the existing roof will need to be replaced as part of future renovations. The existing windows appear to be single-paned wood windows and are likely in need of some maintenance, though the extent of which is unknown. The interior of the building has been reconfigured since its original construction, and finishes on all levels are in need of replacement. Beyond this, the building systems are outdated and likely not completely functional. Finally, there is not an accessible pathway to the building from the roadway, but achieving one appears feasible. Additional information about this building's history and its current condition can be found in the Washington Aqueduct Gatekeeper's House Historic Structure Report.

Figure 29: Engineer's House (GWWO, 2022).

Nash House

The Nash House is one of two small structures built in the 1950s as residences. Since its original use and construction, it has been converted to a Ranger Station (see Figure 30). Given its somewhat recent vintage and based on general observation of the exterior and our understanding of the interior from discussions with Park staff, this structure is generally in serviceable condition, but likely needs some basic envelope and systemic upgrades. A preliminary review of the exterior did not indicate any major concerns that would need to be addressed. The Nash House is located up a short set of concrete steps from the road and is not currently ABAAS compliant. Similar to the Engineer's House, achieving compliance appears feasible with some intervention in the landscape.

Figure 30: Nash House (GWWO, 2022).

Davis House

The Davis House appears to be a matching partner to the Nash House, based on field observation (see Figure 31). It sits further east in the same cluster on top of a lowrise. The Davis House still retains its function as a residence for Park staff. Similar to the Nash House, this building's somewhat recent construction means it generally appears to be of sound construction, though observations indicate some envelope maintenance would be beneficial. The roof appears to be aging, and some of the masonry appears to be stained from water and potentially in need of repointing. Also similar to the Nash House, some upgrades or maintenance to building systems on the structure's interior are anticipated.

Figure 31: Davis House (GWWO, 2022).

Engineer's Garage

The Engineer's Garage is another of the structures constructed by the Civilian Conservation Corps around 1941 (see Figure 32). The structure was designed as a utilitarian building intended to serve the US Army Corps of Engineers Washington Aqueduct maintenance yard and needs. In the 1960s, the building was converted to accommodate stables for mules serving the recreational boat rides on the canal, along with other general Park staff storage needs. The structure was transferred to NPS ownership in the 1990s, and retains its utilitarian use today. The structure is of wood frame on concrete block foundation walls, clad in painted wood board and batten siding. At the time of review by the design team, it was observed to be in good condition, though a recommendation for routine maintenance and envelope work would be applicable to this structure, as well. We understand that it is currently serving the utilitarian needs of the Park adequately. Additional information about this building's history and its current condition can be found in the Civilian Conservation Corps Structures Historic Structure Report.

Figure 32: Engineer's Garage (GWWO, 2022).

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STRATEGIES & RECOMMENDATIONS

The following strategies and recommendations were developed to address specific issues and observations noted during the evaluation of existing conditions to move the Great Falls Area of the Park towards the goals outlined in their Desired Conditions document. They are generally discussed and presented within the framework of the Plan Focus Areas utilized in the previous section, with the exception of the recommendations associated with the Visitor Experience and Resource Management. In reviewing the existing conditions and recommendations associated with these two focus areas more thoroughly, it was apparent that recommendations for some issues involved addressing a combination of both visitor experience and natural resource considerations. As such, these are presented together under a combined section.

Visitor Experience & Resource Management

The focus of these visitor experience and resource management strategies seek to balance the Park's goals of providing a high quality visitor experience and stewardship of natural resources. Recommendations are aimed at improving known issues of congestion at some popular points in the Park, such as Billy Goat Trail Section A, improving the safety and comfort of users through the broadening of access to information, food, and water, and considering opportunities for expanding recreational access. Analysis, discussion, and strategies associated with Billy Goat Trail Section A are more complicated in nature than other recommendations included in this part of the Plan. These have been separated into their own section below, for clarity.

Visitor Experience & Resource Management: Billy Goat Trail Section A

As the most popular trail in this section of the Park, Billy Goat Trail Section A sees heavy visitor traffic each year. The congestion, natural resource impacts and visitor safety issues associated with this trail make it a major focus area of the Plan. The popularity of this beloved trail that contributes to these issues also means that strategies and recommendations for addressing these issues need to be carefully evaluated and considered to balance the dual priorities of maintaining a high quality visitor experience and stewardship for natural resources. The design team developed a range of potential recommendations that can be considered for implementation along Billy Goat Trail Section A. These recommendations are divided into two groups: physical trail interventions and operational strategies. Implementation of these strategies would have differing levels of perceptible impact on the overall experience of hikers on the trail. Some strategies may be better suited for addressing specific issues than others.

To help the Park staff in decision-making associated with the implementation of these strategies, the planning process incorporated a workshop focusing on developing indicators and thresholds that can be quantitatively evaluated to help determine the impact of visitors on specific measures of visitor experience and natural resources and guide potential future actions to mitigate these impacts. The following is a discussion of this workshop process, the two identified indicators for potential future strategies to address, and the range of possible trail interventions and operational strategies that could be considered for implementation based on the information gathered from further study of these identified indicators.

Indicators, Thresholds, and Visitor Capacity Process

Visitor use management along Billy Goat Trail Section A is fundamental to maintaining high-quality visitor experiences and protection of the more than 100 rare, threatened, and endangered plant species and globally rare plant communities on Bear Island, home to the trail. In May 2024, the Park staff participated in a workshop focusing on developing indicators, thresholds, and adaptive strategies for visitor capacity based on best practices created by the Interagency Visitor Use Management Council (IVUMC). According to the IVUMC's Visitor Use Management Framework, an indicator or indicators that Federal land managers are committed to monitor over time ensure resource conditions and opportunities for visitor experiences remain consistent with desired conditions (i.e., within established thresholds). During the workshop, several areas within the Great Falls Area where indicators and

thresholds could be established were brainstormed. Billy Goat Trail Section A was identified as the single-most area in need of focused attention. Based on this workshop and subsequent conversations, the Park staff identified Billy Goat Trail Section A as the focus for the use of indicators and thresholds.

An additional component of the IVUMC's Visitor Use Management Framework includes the identification of visitor capacity. Visitor capacity is the maximum amounts and types of visitor use that an area can accommodate while achieving and maintaining the desired resource conditions and visitor experiences that are consistent with the purposes for which the area was established. Visitor capacity is a management tool that helps ensure the desired conditions are achieved and maintained and is based on a variety of inputs (e.g., research, professional judgment, staff experience, monitoring data, and public input). Once a visitor capacity has been identified, specific management strategies and actions that will be most effective in implementing visitor capacity are identified.

The identification of visitor capacity is needed for Billy Goat Trail Section A to improve visitor safety and reduce visitor congestion along the trail and protect rare, threatened, and endangered species on Bear Island. However, at the time of preparing this Plan, the identification of a specific visitor capacity for the trail was not considered appropriate due to the need for additional quantitative data collection and analysis, as further described in the following section. Once additional data collection and analysis has been completed, the Park staff will identify a visitor capacity for Billy Goat Trail Section A that will inform the implementation of management strategies and actions described further in this section.

Indicators and Thresholds

This Plan establishes indicators and thresholds using guidance created by the IVUMC. Indicators measure conditions that are related to visitor use, and monitoring is conducted to track those conditions over time. Thresholds represent the minimally acceptable conditions associated with each indicator. The results from monitoring indicators and thresholds are used to inform and select strategies that park managers can use to achieve and maintain desired conditions.

Potential management strategies related to these indicators are presented later in this section of this Plan. This iterative practice of monitoring, implementing adaptive strategies, and then continuing to monitor the effectiveness of management actions allows park managers to maximize benefits for visitors while achieving and maintaining desired conditions for resources and visitor experiences in a dynamic setting.

Indicators translate the broad description of desired conditions into measurable attributes (e.g., number of people at one time at key locations, number of visitor-created trails) that can be tracked over time to evaluate changes in those desired conditions. Indicators are a critical component of the visitor use management framework. The planning team considered many potential issues and related indicators that would identify impacts of concern, but those subsequently described were considered the most noteworthy given the importance and vulnerability of the resource or visitor experience affected by visitor use. The planning team also reviewed the experiences of other park units with similar issues to identify meaningful indicators.

Thresholds represent the minimum acceptable condition for each indicator and can be established through considering qualitative descriptions of the desired conditions, data on existing conditions, relevant research studies, and staff management experience. Although defined as “minimally acceptable,” thresholds still represent acceptable conditions. Also, establishing thresholds does not imply that no action would be taken before reaching the threshold. One goal of visitor use management is to strive to make progress toward desired conditions. Thresholds identify the point at which the effects of visitor use on desired conditions are anticipated to become enough of a concern that a management action is needed to achieve and maintain desired conditions.

Indicators and thresholds that would be implemented for Billy Goat Trail Section A as a result of this planning effort, including rationale for these indicators and thresholds are described below.

Indicators and Thresholds: Visitors at the Traverse

Indicator: Visitors at the Traverse, a moderate to difficult rock scramble section of the trail. Specific indicators could include, but are not limited to:

- Number of visitors at one time in the Traverse.
- Number of visitors at one time queuing at the northern approach to the Traverse.
- Number of visitors bypassing the Traverse.
- Queue wait time before entering the Traverse.

Threshold: At the time of preparing this Plan, additional data collection and analysis is needed prior to defining an indicator threshold value. The Park staff will pursue data collection in the future to inform appropriate threshold values.

At the trail's northern approach to the Traverse, data collection should include documenting the number of visitors queuing at the Traverse, their queue wait time before entering the Traverse, and the number of visitors leaving the queue to bypass the Traverse on or off trail. Data collection should also include the number of visitors in the Traverse. This described data should be collected at "one point in time" over several time periods to understand the potential correlation between trail counts, queue lengths, and the number of visitors bypassing the Traverse.

Data collection methods may include the use of Park staff, volunteers (e.g., Billy Goat Trail Stewards volunteer organization), and/or cameras to capture data. Data collection should occur at various times of the day and throughout the year, including during known peak usage periods, given the variety of reasons why queuing at the Traverse may occur. These reasons include, but are not limited to, large visitor groups, unprepared visitors, slow-moving visitors, high temperatures, etc.

Rationale: This indicator seeks to 1) improve visitor safety and reduce visitor congestion along Billy Goat Trail Section A and 2) protect rare, threatened, and endangered species on Bear Island.

The Traverse frequently experiences congestion, prevents visitor passing due to the rocky and steep terrain, and causes trail users to hike off-trail to seek an alternative route around the Traverse to avoid crowds and queuing. Queuing at challenging sections of a trail can pose safety risks for trail users. Visitors waiting on steep, narrow, or uneven terrain may find themselves in unstable positions or attempt risky maneuvers to pass others, increasing the likelihood of slips, trips, or falls. Prolonged waiting may also expose visitors to harsh weather conditions such as intense sun, which could lead to dehydration or heat exhaustion. Additionally, frustration and/or fatigue accompanying long delays could impair judgment and physical performance, further elevating the risk of accidents along a strenuous trail.

Bear Island's plant communities make the island one of the most biologically diverse in the National Park system. High and increasing visitation creates stress for these species and natural habitats. The current volume of trail use has negatively impacted these resources from off-trail hiking caused by trail congestion or along informal social trails. Based on staff observations, a majority of visitors bypass the Traverse because they do not want to wait in the queue.

Monitoring: The Park staff's monitoring approach will use similar data collection techniques as described in the Thresholds section.

Indicators and Thresholds: Vegetation Condition

Indicator: Vegetation condition. Specific indicators could include, but are not limited to:

- Amount or proportion of trampled/disturbed vegetation.
- Change in species population size or density.
- Change in species condition.

These indicators should be species-specific. Species adjacent to the trail or informal social trails where visitor use is a key contributor to vegetation changes should be selected because species decline can result from multiple factors (e.g., invasive species, deer browsing, rainfall).

Threshold: At the time of preparing this Plan, additional data is needed prior to defining an indicator threshold value. The Park staff will pursue data collection in the future to inform appropriate threshold values. Examples of thresholds could include no more than X percent increase in the observed trampling or X percent change in the Species A population since the last observation.

To establish a threshold, a select number of vegetation plots that are representative of the rare, threatened, or endangered species populations and are located near the existing trail and informal social trails should be identified for monitoring. These plots should be easy to measure (i.e., on the vegetated, not rock-face portion of the general Billy Goat Trail Section A area) and have past evidence of trampling. Measurements of the selected indicator in these plots will help establish a baseline measurement and a threshold value that future monitoring efforts can compare to.

The timing of data collection efforts should consider the selected species' flowering or fruiting period (i.e., when the species is most readily identifiable). Because visitors may use informal social trails for a variety of reasons (e.g., convenience, avoiding crowded areas, not realizing the trail is unofficial), the timing of data collection efforts in relation to peak trail usage periods is less important.

Rationale: This indicator seeks to protect rare, threatened, and endangered species on Bear Island.

The Park staff has collected and monitored hundreds of rare, threatened, and endangered species in this area. Analysis conducted in the past few years has shown a decrease in rare plant population size and density over time. The current intensity of visitor use of Billy Goat Trail Section A has led to resource degradation, specifically due to off-trail hiking caused by congestion or the use of informal, user-created paths.

Monitoring: The Park staff's monitoring approach will use similar data collection techniques as described in the Thresholds section. A more detailed monitoring approach, including specific monitoring locations, species, and schedule will be identified by the Park staff in the future.

Management Strategies

Billy Goat Trail Section A is considered to be moderately difficult due to the terrain. In addition, seasonal heat impacts create safety concerns for many unprepared visitors. Improving management of this important park resource would positively impact visitor experience and safety as well as protection of natural and cultural resources. Below are suggested strategies for managing use of this trail.

Physical Trail Interventions: Boardwalk

In sections of open terrain, install boardwalks such as those shown in Figure 33 and 34. Boardwalks, while more costly than other physical trail interventions such as trail borders or increased blazing, are generally more effective, as they are more obvious to the visitor.

Physical Trail Interventions: Iron Rung

In sections of difficult terrain such as the Traverse, consider installing an iron rung system such as that shown in Figure 35. While such a treatment is more visually intrusive on the landscape, the general landscape in the Plan Area does already contain obvious signs of human intervention, and such a treatment is likely to be appropriate. Similar systems have been successfully installed in parks such as Acadia National Park.

Physical Trail Interventions: Traverse Section

PATC volunteers and Park Staff have completed a bypass trail for the Traverse section of Billy Goat Trail Section A to be used alternatively, or in conjunction with the above-listed iron rung treatment. The formal signage and map indication of this change is still in progress, however the trail is actively in use. By designating a formal trail option that avoids the Traverse, the Park intends to reduce safety concerns, as well as natural and cultural resource damage, caused by visitors finding their own ways of avoiding the Traverse. The offsetting impacts caused by creating a new trail through the interior of Bear Island would need to be considered.

Figure 33: Wooden Boardwalk Example (VHB, 2022).

Figure 34: Boardwalk Trail Example (VHB, 2022).

Figure 35: Iron Rung Example at Acadia National Park (NPS, 2021).

Operational Strategies: Billy Goat Trail Steward Program

Trail stewards, as well as Preventative Search and Rescue volunteers (PSAR), are successful in communicating rules to visitors. However, they are not always visible and cannot enforce the rules. Consider a targeted expansion of the program to emphasize staffing of high visitation periods (weekends, holidays). Volunteers (or park staff on targeted weekends as feasible) positioned at the trailheads on high-heat days would also serve to caution hikers about heat exhaustion.

Heat Safety Strategy: Water Bottle Filling

To address the heat exhaustion safety issues, install one or multiple water bottle filling stations near the Great Falls Tavern Visitor Center, as discussed further below.

Heat Safety Strategy: Trail Closure

Given associated safety concerns, such as dehydration, exhaustion, and heat stroke, caused by high-heat related events, consider trail closures on high-heat index days as warranted, coordinated with local authorities.

Managed Access

As part of an adaptive management approach to natural resource protection, consider piloting a managed access trail system for Bill Goat Trail Section A if other interventions are not successful in improving visitor safety and protecting resources. A managed access system controls and monitors trail access to ensure sustainable use and protect natural resources. Managed access systems generally include features such as designated entry points, permits, and fees for use. Such a system could be similar to that which was implemented on the Old Rag Trail in Shenandoah National Park and would be piloted first for a limited period of time, similar to managed access system approaches used in other NPS units.

One of the following variations of a managed access reservation system should be further explored to manage overcrowding on Billy Goat Trail A (BGTA). As discussed in the Indicators Thresholds and Visitor Capacity section, implementation of any of the below managed access systems needs to be informed by additional visitor use data, including queue data at the Traverse, trail counts, and vegetation data.

Timed Entry Permit System: Visitors would need a reservation for a specific block of time (e.g., between 9:00 a.m. and 10:00 a.m.) to entering BGTA during a defined peak season (e.g. Memorial Day to Labor Day) and times of day (e.g. entries between 9 am and 5 pm). During these periods, visitors would be required to obtain a reservation through an online system such as Recreation.gov to enter the park. Determinations would need to be made regarding the total number of reservations available, based on trail capacity estimations, and the number of day-of reservations available. Enforcement of reservations would require a roaming NPS or volunteer staff to check reservations.

Lottery System Variant: Similar to a timed entry system, a lottery system such as one used at Angel's Landing at Zion National Park can be considered. Selection in a lottery system would be at random rather than first come first served in a timed entry or daily cap. A lottery system is typically used for high-demand sites, and often ones with safety considerations, such as Angel's Landing or Half Dome. While the Traverse does have high use as well as safety considerations, it likely does not rise to the level of requiring a lottery system.

Daily Cap Reservation System: Rather than a timed entry system where the trail reservations are available in discrete time blocks, a daily cap reservation system would establish a daily maximum number of permits available to hike BGTA. The system would also be implemented online through Recreation.gov, but rather than reserving their start time during a specific window, visitors would not be required to specify their entry time. A daily cap reservation system may not be as effective in managing trail overcrowding, however, given the daily visitor use patterns at the site.

Group Size Limitations. Used in combination with either managed access system described above, group size limitations should be added to the online reservation system. Groups larger than, for example, 5 people would be required to break the group up and stagger their start times. Group size limits would help reduce the risk of off-trail travel. For comparison, the group size limit at Old Rag is 4 people.

Facility Needs: Most managed access trail reservation systems do not require any facilities such as fee booths.

Visitor Experience & Resource Management: Other Recommendations

Management of Informal Social Trails

The proliferation of informal social trails in the Park impacts the visitor experience as well as natural and cultural resources. As with most other strategies, a combination of approaches to managing these trails should be considered for maximum effectiveness. Strategies to consider are:

Trail Maintenance

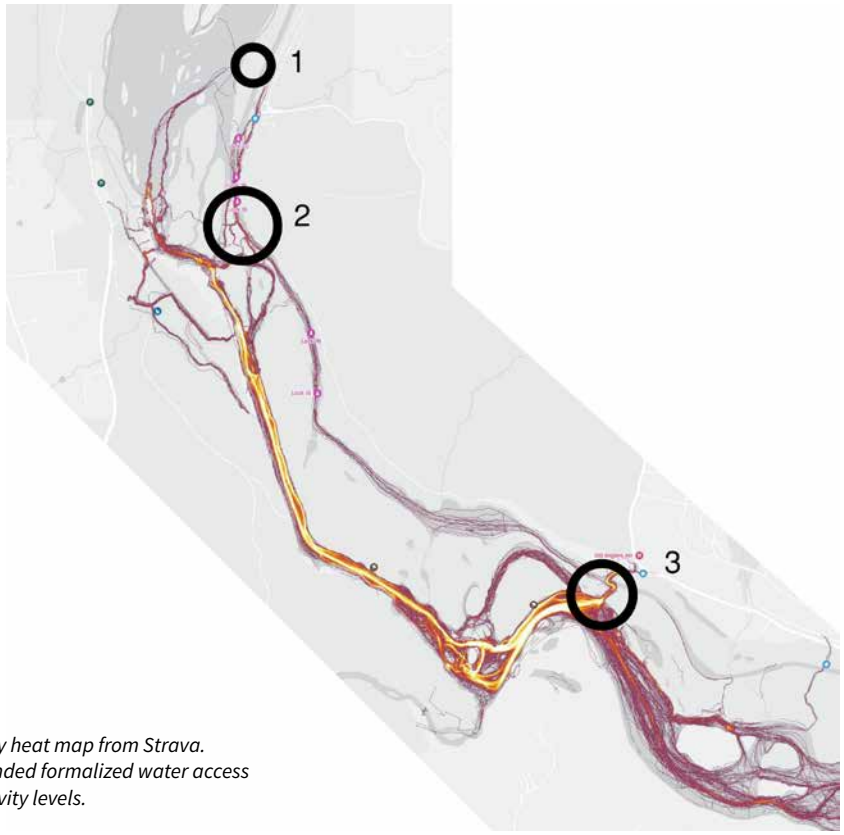
Regularly maintain designated trails to more clearly distinguish them for the visitor.

Education

Continue to promote trail stewardship and strategically message visitors (including signage and media messaging) about the need to stay on trails due to sensitive resources. Explain how one hiking group leaving the trail leads to the creation of informal social trails.

Containment

A containment approach to trail management involves several steps. Steps include surveying all existing trails (formal and informal), choosing which trails to retain, and aggressively closing all others with methods such as signage, brushing, or fencing.



Note: *Water-based activity heat map from Strava. Circles indicate recommended formalized water access points, based on high activity levels.*

Figure 36: Water-Based Activity Heat Map (VHB, 2024).

River Access Informal Social Trails

Pursue formalization of appropriate river access points as shown in Figure 36. Recommend formalization of the following locations:

- Location 1: Recommend further study of this location. Recreational use data from Strava indicates high river traffic at this spot, located west of the Visitor Center parking lot. As indicated by the heat map on Figure 36, users are putting in/taking out from this location to locations downstream. This requires further study to learn trip patterns and study potential formalized access locations.
- Location 2: River access at the location known as Sandy Beach, descending to the Potomac's Mather Gorge from Sandy Beach. Recreation use data from Strava, as well as public comment and user group input indicate this is a well-used access point that should be formalized.
- Location 3: River access at the boat ramp at Angler's. Recreation use data from Strava, as well as public comment and user group input indicate this is a well-used access point that should be formalized as well.

Formalization would include elements such as signage, river access blazing, regular maintenance, mapping, and education. Recommend pursuing a containment strategy as described above, and close and rehabilitate all other informal river access trails. Recommend working with partner organizations such as the Canoe Cruisers Association (CCA) to make needed access improvements such as repairs to the Sandy Beach Steps.

All Other Informal Social Trails

Formalize desired trails (such as Billy Goat Trail Section A). For Billy Goat Trail Section A and any others desired, encourage visitors to stay on trails using the strategies described above. For all other informal social trails in the Park, pursue a containment strategy as described above.

Signage

A top priority goal for the Plan Area is to create a clear, consistent, simplified, and updated signage system. Antiquated, haphazard, and confusing signage throughout the Plan Area has implications for several issues, including visitor experience, resource management, and safety. Signage and wayfinding need to be updated and coordinated throughout the Park. This strategy would use a prioritization process to identify points where safety and wayfinding signage should be located. Priorities should include river access trailheads and Billy Goat Trail Section A, where the existing messaging condition can lead to confusion and safety concerns for visitors. The strategy would be to create a clear hierarchical system of signage typologies that is designed to meet visitors' safety as well as wayfinding needs.

River Signage

Signage for river access points should be placed at designated, formalized river access trailheads. Signage content should prioritize safety messaging.

Billy Goat Trail Section A

Signage at all Billy Goat Trail Section A access points should be simplified and streamlined, and prioritize safety messaging such as trail difficulty and heat risks (see above).

Natural Resource & Rare and Endangered Species Protection

Protecting the Park's natural resources in general, and its rare and endangered species in particular, requires an adaptive management approach and consideration of a variety of strategies. Adaptive management involves exploring alternative management strategies, predicting outcomes of those strategies, implementing strategies, monitoring implementation to assess impacts, and learning from the outcomes to inform future decisions. Strategies to be considered include:

Signage

As discussed above, improved and consistent wayfinding and signage is needed throughout the Park. In the case of natural resource protection, signage should be considered in places such as Bear Island to alert users of delicate resources that might not otherwise be obvious (see Figures 37 and 38).

Interpretation and Education

To raise awareness and improve connections between visitors and the Park's natural resources, consider increasing natural resource educational information. Topics could include human/wildlife encounters as well as water quality programming. This could include kiosks in key areas or identifying the types of animals that may be seen within the Park.

Figure 37: Billy Goat Trail Section A, Closed Section Signage (GWWO, 2022).

Figure 38: Rare Plant Protection Signage Example (NPS/Jeff Marion, 2019).

Facilities

In some trail sections, consider installing facilities to physically keep visitors on the trail. Physical barriers could include semi-permanent fencing (see Figure 39) around sensitive plant species, boardwalks in sections to keep visitors on trails, or one of the fencing options shown in Figures 40 through 42 below, including colonial, split-rail, or buck-and-rail fencing. Elements such as amount of ground disturbance versus size of fencing footprint should be considered.

To maintain water quality within the Park, facility strategies to consider include locating trash receptacles at developed facilities such as parking lots and comfort stations. Signage could then be incorporated after the canal crossing to reinforce that the towpath and trails are trash-free and visitors should expect to carry trash to the receptacles upon exit.

Managed Access

As part of an adaptive management approach to natural resource protection, consider a managed access system for trails with enduring natural resource impacts not addressed by other strategies, such as Billy Goat Trail Section A. See section above for additional information.

Figure 39: Semi-Permanent Trail Barrier (VHB, 2023).

Figure 40: Split-Rail Fence (Lowes, 2025).

Figure 41: Buck-and-Rail Fence (USFWS/BJ Baker, 2013).

Figure 42: Colonial Fencing (Elf Talk, 2005).

Cultural Resource Protection

The NPS will continue to protect the Park's cultural resources to tell the story of the area as well as the larger national story. A watered canal and functional locks are some of the most impressive examples of the American canal-building era; strategies to preserve these stories are priorities.

Watered Canal

Keeping the section of the canal centered on the Great Falls Tavern Area watered is a priority for the Park. Prioritize the maintenance actions necessary to preserve this watered canal segment, including de-silting, keeping locks and lock gates in good condition, and maintaining wasteweirs.

- Consider extending the watered canal section as feasible to accommodate a boating loop.

Education and Interpretive Programs

Continue to prioritize providing a wide variety of educational resources throughout the Park. Improve consistency of the narrative being presented. Consider adding a programming kiosk for cultural resource messaging; balance the kiosk with existing signage throughout the Park, however, so as not to overload spaces with waysides and kiosks. Explore possibilities like offering additional audio tours or implementing QR code features.

Facilities

Consider using strategies described above to keep visitors on trails in sections with sensitive cultural resources such as petroglyphs.

Consistent Access to Potable Water & Supplies

Several options for adding consistent access to food were considered. A handful of comments from the first Public Comment Period suggested renovating the existing Tavern building and reopening it as a functioning tavern or restaurant. The building is currently used as a Visitor Center, classroom, and administrative space—all necessary functions for this part of the Park. While finding an alternate classroom space is reasonably achievable, relocating the Visitor Center function would require a larger building than is readily available or constructing something new. Constructing a new building to house these functions would require a substantial capital investment and siting it would need to be evaluated with the historic and cultural landscape. Additionally, retrofitting the building to contain safe cooking facilities would negatively affect the historic fabric of the building and expose it to elevated fire risk.

A second, multi-pronged alternative was also considered. This area of the Park is home to a historic Concessions Building, located near the Great Falls Parking lot (see Figure 43). Food concessions have previously operated out of this building, and in 2024, the Park began to reopen it on a limited basis to again serve in this capacity. In addition to its convenient proximity to the parking lot and existing circulation pathways, the building is already generally configured for walk-up food service and has already been used with kitchen and food preparation equipment inside. As the building use would not be changing, the likelihood of substantial alterations being required is low. The building as it exists today has some areas that are recommended for improvement to bring it to full service. Further discussion of these recommendations is incorporated into the Historic Structures section.

It is understood that a full-service concessions program may not be open during all hours of Park operation. To augment this capacity, this second alternative recommends the creation of a small retail section of the existing Visitor Center for the sale of packaged food, water and first aid supplies, expanding the availability of such resources during building's operational hours (see Figure 44).

Utilizing and upgrading the existing concessions building, as well as creating a small retail component in the existing Visitor Center, are readily achievable without significant effort. Additionally, upgrades to the existing Concessions Building could possibly be undertaken incrementally. For instance, the sequencing could focus on the exterior envelope and improvements without addressing the interior equipment, depending on available funding. Finally, implementing this strategy would not affect current uses and needs of other buildings and would be consistent with the historic use of the Concessions Building.

Beyond the added retail opportunity for food and supplies discussed above, further expanded access to potable water has been noted by both the Park staff and public as a priority. To further meet this need, the Plan recommends adding bottle filing stations at the Great Falls Tavern Area as a simple strategy with a high impact. To maximize visibility while making use of existing infrastructure, new bottle filling stations at the Concessions Building and the Comfort Station are both recommended (see Figure 45).

Figure 43: Existing Concessions Building (GWWO, 2023).

Figure 44: Crissy Field Warming Hut Park Store, Golden Gate National Recreation Area (NPS/Myleen Hollero, 2025).

Figure 45: Water Bottle Filling Station (NPS, 2025).

Recreational Opportunities and Visitor Activities

The Park aims to maintain the quantity and diversity of recreational opportunities and visitor activities, while seeking ways to increase their availability to visitors. It is notable that some of the more popular activities require equipment that some visitors may not ordinarily have access to, or have own. To increase access to some of these activities such as biking, boating, and potentially climbing, the Plan recommends considering equipment rental programs through a concessions partner. (see Figures 46 and 47). Opportunities for visitors to borrow or rent a bike, kayak, canoe or other equipment (and the required safety gear), coupled with necessary guiding or instruction depending on the activity, would serve as a means to open up more activities to a wider range of visitors.

One consideration for this recommendation is space requirements for any new partners or offerings. Further discussion about the possibility of providing dedicated space for an recreational equipment concession is included in the Historic Structures section of the study.

Figure 46: Yosemite Bike Share (Ryan Kelly, 2025).

Figure 47: Kayak Rental (Florida Hikes, 2025).

Overnight Experiences

Maintaining and improving opportunities for overnight stay in the Plan Area is a priority of the Park. Given the success of the Canal Quarters Program, particularly the Lock 21 Lockhouse, the Plan does not include any recommendations other than to continue its operation (see Figures 48 and 49).

In order to improve the predictability of availability at the Swains Lock Hiker-Biker Campsite and mitigate some of the nearby parking congestion and concerns while maintaining access to this camping opportunity, the Plan recommends reviewing and transitioning this camp site from a non-reservable 'hiker and biker' site to one that is available for advanced reservation on Recreation.gov. Transitioning to this reservable status would allow the Park staff to better control the number of parked vehicles associated with the site, helping to alleviate parking congestion and conflict issues in the small adjacent lot. Reservable status would also make availability more predicable for users and help to address the longer-term stays the site sometimes sees. Finally, this change would allow collection of fees at this location. With this change, the next non-reservable 'hiker and biker' campsite is located at Horsepen Branch at mile marker 26.1, just under 10 miles further along the towpath (see Figure 50). Given the proximity of this site to the towpath's start in Washington, D.C., this change is anticipated to have limited impact on hikers and bikers traveling multiple days along the towpath.

Figure 48: Lockhouse 21, Exterior (C&O Canal Trust, 2025).

Figure 49: Lockhouse 21, Interior (C&O Canal Trust, 2025).

Figure 50: Swains Lock Hiker-Biker Campsite (Lucy Uncu, 2025).

Parking & Traffic

The developed strategies and recommendations for Parking & Traffic in the Great Falls section of the Park are aimed at maintaining and improving the visitor experience and visitor safety balanced against mandate for natural resource stewardship and considerations of cost and feasibility. Based on a review of existing conditions, discussions with Park staff and public comments, the design team understands the primary issues of the three parking areas in this part of the Park to be congestion. That said, though the parking lots occasionally fill up on the highest use days during peak periods, the design team further understands that this is an infrequent occurrence. While added or expanded parking facilities is a strategy often considered for addressing congestion, it is not being recommended here for three primary reasons. First, expanded parking would have negative impacts on the natural (and in some case cultural) resources surrounding the existing parking facilities. Second, expanding these lots is likely to be a long, involved and expensive process – design and construction of new parking facilities requires a sizable investment, and the timeline associated with the review and regulatory requirements can be long. Potential closures of these lots for major construction would have a short-term negative impact on the visitor experience. Third, the substantial time and investment involved in new construction outweighs the potential need for new parking based on the frequency these lots are full.

Given the above, the focus of these strategies and recommendations for improving congestion and safety concerns is three-fold:

- Improve the efficiency of the visitor arrival experience to the lots.
- Improve the layout, function and circulation through the lots.
- Improve the distribution of visitors between lots.

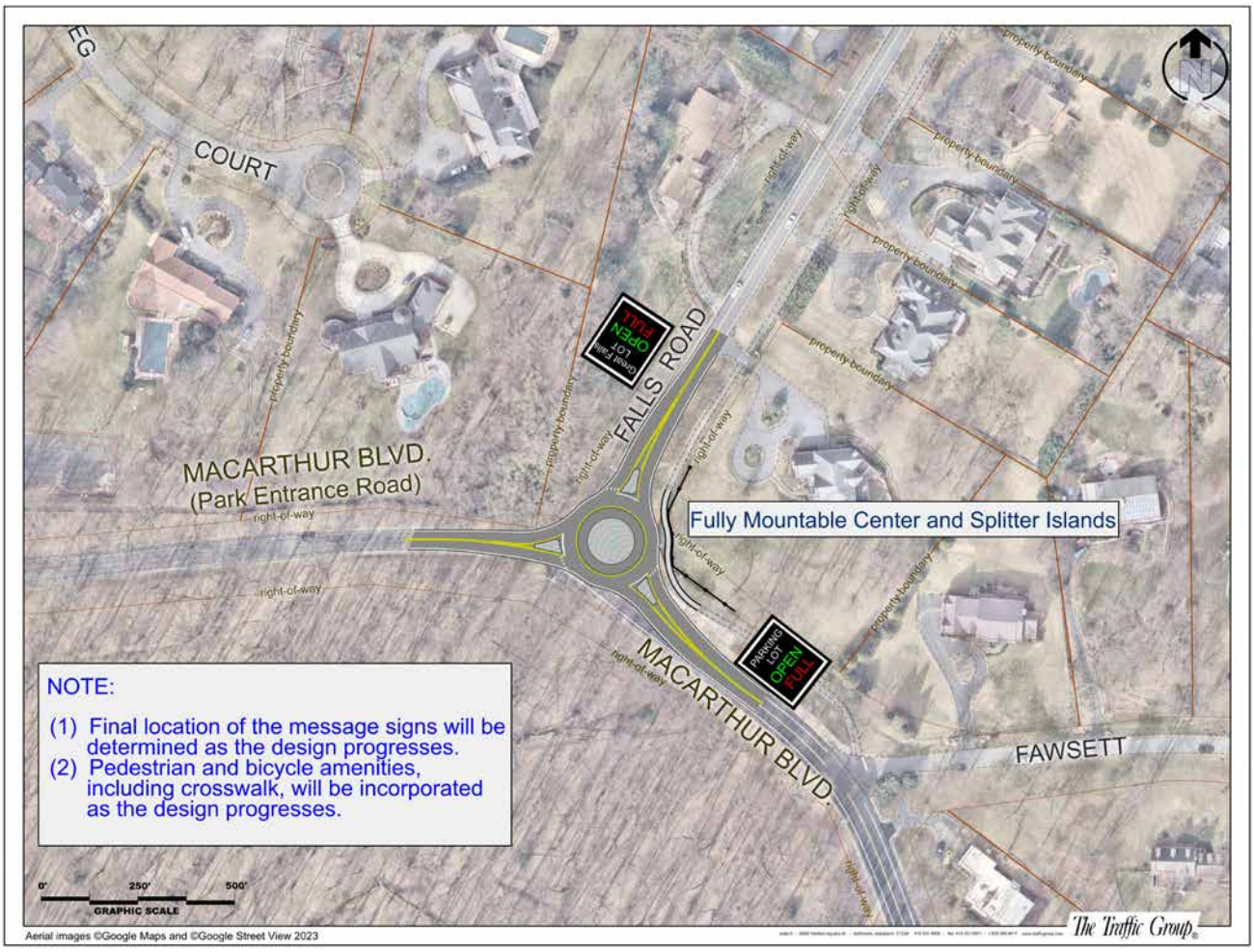


Figure 51: Tavern Area Modifications (The Traffic Group, 2025).

Tavern Area

The design of a roundabout was considered to address parking demand in the Tavern Area. The roundabout would allow for potential park visitors to easily access different areas of the Park along Falls Road or MacArthur Boulevard if the parking area is full (see Figure 51). In conjunction with the roundabout, it is noted that variable message signs should be incorporated to alert potential patrons to the status of the parking area.

This roundabout would need to be designed in conjunction with Montgomery County guidelines and requirements as the footprint would be outside of NPS jurisdiction. Curbs would be fully mountable to account for emergency and large vehicles. Pedestrians and bicycles would also be accommodated.

The potential construction of a roundabout would better serve all drivers, not only park users as safety is enhanced through the reduction of conflict points and lower travel speeds. Intersection capacity can also be improved with delays reduced for movements that were previously stop-controlled.

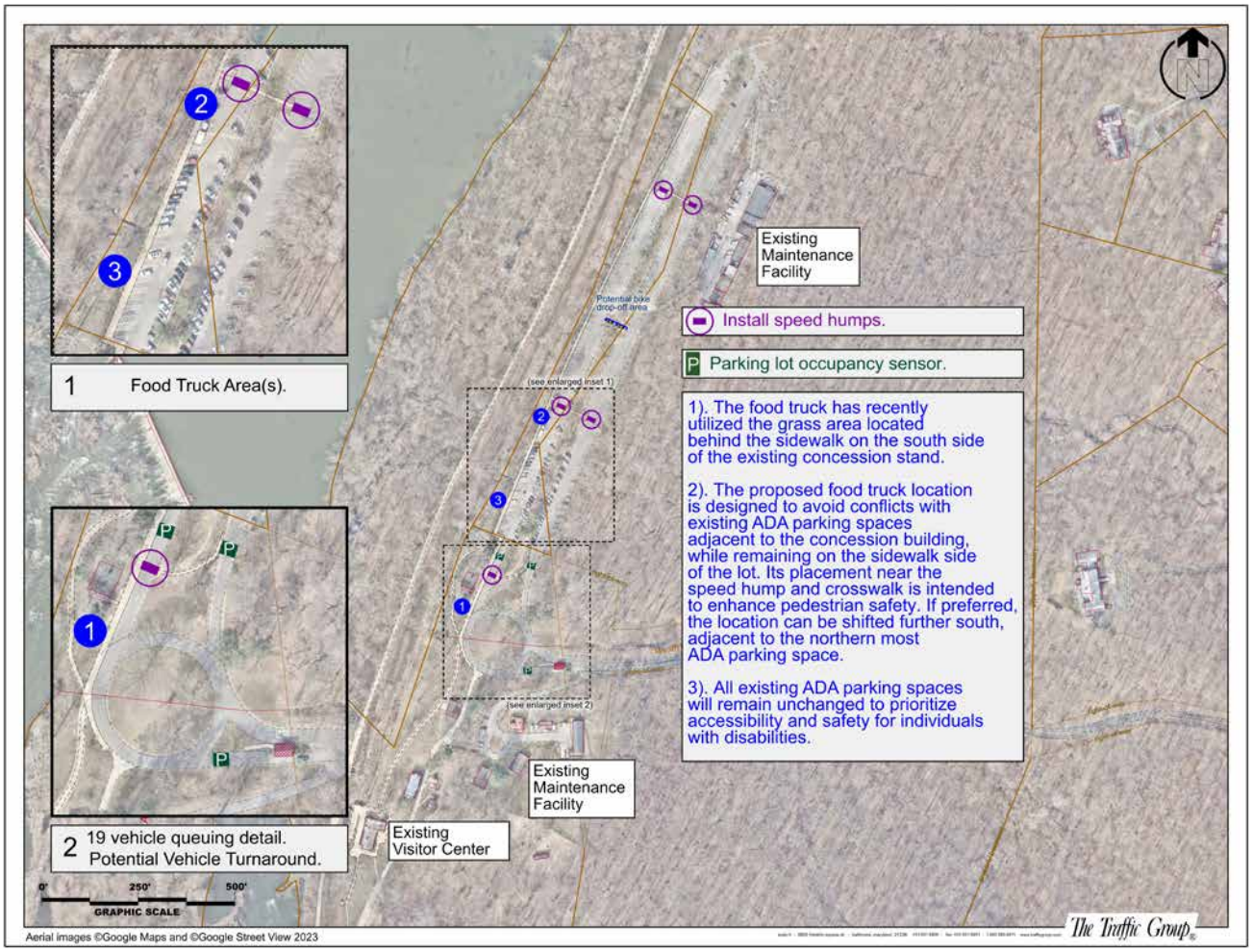


Figure 52: Great Falls Parking Area Modifications (The Traffic Group, 2025).

Great Falls Parking Area

To address traffic congestion and queuing along the Entrance Road, parking lot occupancy sensors could be incorporated within this design to alert off-site users if the parking lot has reached capacity. The sensors would work in conjunction with the proposed roundabout discussed above at the intersection of MacArthur Boulevard and Falls Road.

The existing layout of the Great Falls Parking lot allows for vehicles to travel at high speeds while looking for or exiting a parking space. To reduce speeds within the parking lot, consideration could be given to installing speed humps at key locations. The speed humps would enhance safety by reducing speeds and thereby the potential for traffic collisions with other vehicles or pedestrians. Crosswalks could also be provided at key areas to formalize pedestrian routing within the parking area.

It is understood that food trucks currently use the Great Falls Parking lot during peak times. It is suggested that a formalized area be provided for food trucks to allow for pedestrian queuing on sidewalks and outside of the vehicular parking area (see Figure 52). Since the food trucks visit on schedules during peak times only, signing could be used to restrict parking only during those times. The final location of the food truck parking can be determined as the project progresses, however it is suggested that the existing ABA parking spaces be preserved.

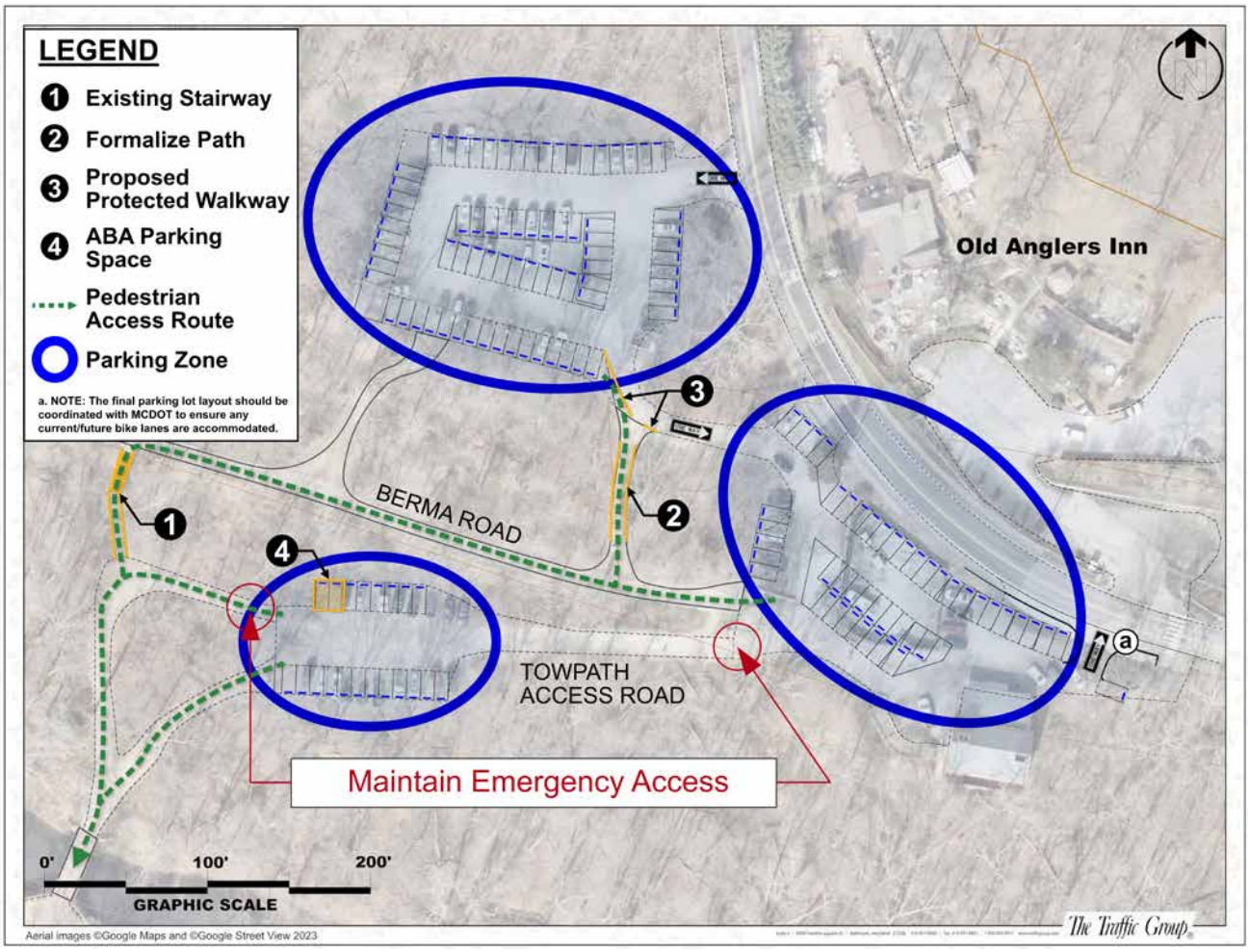


Figure 53: Anglers Parking Area Pedestrian Access (The Traffic Group, 2025).

Anglers Parking Area

To improve the efficiency and availability of parking at the Anglers Parking Lots, it is suggested that a gridded striping system or parking dots be installed to delineate the parking area (see Figure 54). This would allow for consistent parking on a regular basis within this section. Consideration should also be given to formalizing a one-way route within the parking area (see Figure 53). This would also maximize efficiency by potentially allowing additional parking spaces.

Maintaining emergency access is paramount along the Towpath Access Road for first responders to reach the towpath and riverfront. The County utilizes this route for emergency river rescues and boat trailer access must be maintained. The existing signage should be reviewed to ensure that adequate emergency space is available for vehicles that need to reach patrons in need.

Consideration could also be given to expanding entrance fee collection at this area. Currently, parking is free at this location, which leads to additional congestion and demand. There are several methods for implementing an entrance fee collection. This includes a physical fee booth, a cell phone-based automated system, paying prior to arrival, and a mobile fee unit with attendants. In order to minimize barriers to implement this change, the recommended approach would be to select a method that does not require new physical infrastructure or dedicated

staffing to be added to the location. A cell phone based system, one that requires visitors to pay for entry fees prior to arrival and leaving a pass on their dashboard, or a mobile fee collection unit are all options that could meet this criteria.

In addition to organizing vehicle circulation and layout within the Angler's lots, the design team recommends formalizing circulation pathways and access in the lot in an effort to promote safe pedestrian movement between the lots and down to the canal and towpath. Currently pedestrians navigate between the lots on a combination of formal and informal social trails, as well as walking alongside the edge of the road. The lower lot is directly connected by pedestrian trails to the towpath already, and visitors parking in that lot do not need to walk further along the roads or drive aisles to reach their destination. The middle lot is also connected directly to the Berma Road trail and it is recommended this is treated as the formal pedestrian access path, by way of an existing stairway further down the trail that connects to the towpath access trail. The upper lot is currently connected by a series of somewhat passable informal social trails, and it is evident that visitors use both of those to reach lower parts of the Angler's area, as well as walking along the roadway. The Plan recommends formalizing the more gradual of these two informal social trails (closest to the middle lot) by adding the necessary steps and railings. There is a short extent of this informal social trail that would necessitate pedestrians walking along the drive aisle - at this location the recommendation is to provide barriers to separate walking and driving spaces. These could consist of wood fencing or something more robust. This may require a marginal increase in the width of the drive aisle at this portion. In keeping with other parts of the Plan, the design team recommends closing the other informal social trail.

Figure 54: Installation of metal parking dots, Glen Canyon National Recreation Area (NPS, 2025).

Figure 55: Swains Lock Parking Area Modifications (The Traffic Group, 2025).

Swains Lock Parking Area

To address current inefficient parking at this location, it is suggested that a gridded striping system or parking dots be installed to delineate the parking area. This would allow for consistent parking on a regular basis within this section.

In addition, there are certain areas within the parking lot that are intended for overnight guests at the on-site lodging. To restrict day time park patrons from using these parking areas, additional signing could be considered to reflect the intended use.

The access road to this parking area is narrow and cannot support parallel parking along its length. Additional signing and enforcement could be considered in conjunction with support from Montgomery County as the roadway is under their jurisdiction (see Figure 55).

Accessibility

Based on observations of existing conditions in the Plan Area, it is understood that ABAAS compliant opportunities exist for visitors to engage in three of the four Core Experiences identified for this area of the Park. These three are:

- Experiencing the historic towpath and canal.
- Viewing and experiencing historic structures within the study area.
- An overnight experience along the towpath and canal.

The fourth core experience, 'Viewing the falls and cliffs along the Potomac River' could benefit from improved accessibility as there is not currently a fully ABAAS compliant route to achieve this. As noted in the existing conditions, this is due to the nature of the towpath as both a historic structure and primary circulation route. Recommendations for addressing this include a more thorough evaluation and survey of slopes and grade along its length, as well as regular maintenance to keep it as a flat and stable surface.

Finally, ABAAS compliance to other core experiences could be broadened, most notably with expanded opportunities to experience historic structures within the study area, particularly at the Tavern Area.

Experiencing Historic Structures

Given the extent of existing accessibility for visitors to experience the canal, the towpath, historic canal support structures and other historic buildings in the area, the Plan does not include specific recommendations for improving access to this core experience. Instead, the Plan does include a handful of general recommendations. First, continued evaluation of ABAAS compliance in and around historic structures, particularly at the Great Falls Tavern Area, should be undertaken. In particular this evaluation should be incorporated with any historic structures newly opened to the public. Second, maintenance of the towpath walking surface should be continued to keep it as stable and even as feasible within the limits of the historic fabric. In particular, we recommend prioritizing those areas of the towpath between the Great Falls Tavern Area and the entrance to the Olmsted Island boardwalk, but more broadly note the importance of this effort along the whole length of the study area. Finally, the 'trail-appropriate wheelchair' program should be maintained, allowing visitors to utilize wheelchairs better suited to traversing the towpath and experience it more extensively. If deemed necessary based on demand, this program could be considered for expansion, but we understand at the time of this Plan that it is functioning adequately.

Potomac River & Falls View: Great Falls Overlook

While making access to the Great Falls Overlook fully ABAAS compliant is likely unattainable due to its remote location from existing parking infrastructure and the negative impacts reducing that distance would have on both the natural and cultural resources in this area of the Park, the Plan includes recommendations to improve the accessibility to this core experience (see Figure 56).

First, as noted above, we recommend regular maintenance of the section of the towpath between the Great Falls Tavern Area and the beginning of the Olmsted Island boardwalk to keep the walking surface as stable and even as feasible. The towpath surface material and construction is part of its historic fabric and character defining feature and as such replacing it with something more stable is not a viable option.

Second, we recommend a full evaluation of slopes and grade changes along the towpath and the boardwalk to understand if any portions of these two pathways are too steep for ABAAS compliance. If sections of the boardwalk are too steep, consideration should be given to remedying them, if feasible. Any sections of the towpath that are too steep will likely not be able to be changed due to their historic nature, but the information can be more fully communicated to help set expectations of visitors.

Figure 56: Great Falls Overlook Area Map (GWWO, 2025).

Finally, we recommend helping visitors better understand and evaluate the nature of the pathway and likely effort involved in traversing it to reach this view by adding informational signs or kiosks at key decision points along the way. The first recommended kiosk would live at the Great Falls Tavern Area and convey information such as distance of the pathway and character of the towpath surface. The second recommended kiosk would be at the start of the Olmsted Island boardwalk and contain similar information, potentially including points of interest to anticipate along the way to the overlook itself.

As noted above, the feasibility of this trip to the Great Falls Overlook will be improved for some visitors with disabilities through use of a trail appropriate wheelchair able to more easily navigate the towpath's varied terrain. As such, the recommendation above of continuing to offer this program is applicable for this experience, as well.

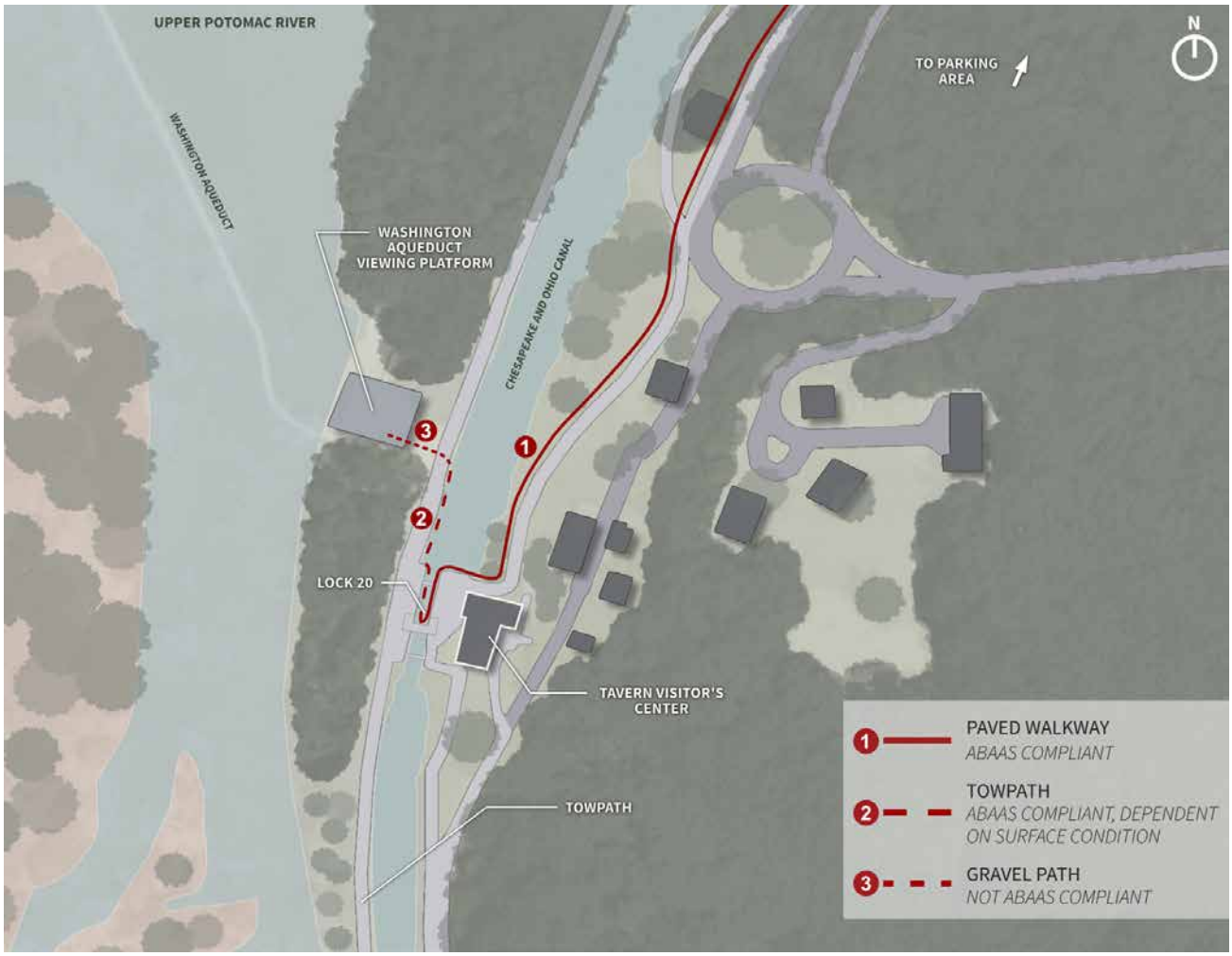


Figure 57: Washington Aqueduct Viewing Platform, Existing Conditions (GWWO, 2025).

Potomac River & Falls View: Washington Aqueduct Viewing Platform

The proximity of the viewing platform to the Great Falls parking lot and Visitor Center makes it inherently more accessible than the Great Falls Overlook (see Figure 57). The Plan recommends two strategies for ABAAS compliance at this viewing platform (see Figure 58):

1. Continued maintenance of the towpath surface, as previously discussed.
2. Replace the gravel paths connecting the towpath to the platform with a ramp and walking surface that meets ABAAS criteria for slope and stability.

Ideally this would be achieved in a slope low enough to be considered a 'sloped-walk' and avoid the need for handrails along its length, reducing its visual presence in this cultural and historic landscape. Alternate materials for the walking surface should be considered both for their evenness and stability as well as their suitability for the historic landscape. Concrete sidewalk may be a viable option but others may be more appropriate.

Figure 58: Washington Aqueduct Viewing Platform, Proposed New Conditions (GWWO, 2025).

Overnight Experiences

As there is currently an accessible overnight experience within the study area and the only other location for an overnight stay is immediately adjacent to the accessible one, there are no recommendations for improvement. It is recommended that the experience at Lockhouse 21 is prioritized and maintained.

Historic Structures

Towpath & Canal

The goal of the Park is for these defining features to be maintained and fully operable within the Plan Area. Maintaining the towpath surface in flat, stable and good condition requires routine maintenance to address drainage, erosion, and issues associated with general wear and tear. While not fundamentally complex, this effort requires continuous staff time and resources. Alternatives with more permanent alterations to the towpath surface to improve its durability and longevity were not considered as it is a historic structure and a character defining feature of the Park.

Alongside a towpath maintained in good working condition, the Park staff desires to maintain a watered canal, from its start in Washington, D.C. until mile marker 23, including the full extent of the canal in the Plan Area. Relative to the towpath, this is a more substantial undertaking but is still largely maintenance focused. There are a number of components of the canal infrastructure that require routine maintenance of various levels in order to keep this system functioning. First, the canal itself is subject to collecting stormwater runoff and sediment along its length. Overtime this sediment builds up, reducing the depth of the canal and causing issues with water flow. Periodic cleaning and dredging of the canal is needed to address this issue. The wasteweirs provide overflow opportunities for the canal itself to avoid water spilling over the canal. In order to function, these components also require maintenance and removal of sediment.

Tavern Area Historic Structures

The team reviewed two alternatives for these public-facing historic structures. Combining a review of the existing conditions and character of each of these public-facing historic buildings with a look at strategies being recommended elsewhere in the Plan, the design team evaluated the appropriateness for different potential uses of these structures. From this, the team generated two alternatives strategies for occupying these buildings to be included as part of the Plan.

<u>Public-Facing Historic Structures Alternative 1</u>

The first concept proposes repurposing of these historic structures in a manner that reinforces Visitor Experience (see Figure 59). The Tavern building would continue to be used as it is today, housing the Visitor Center, classroom space, and administrative space for Park staff and partner organizations, filling that important need for this area. To help address the Plan goal of improving availability of food and beverage options for visitors, we recommend reconfiguring a small portion of the Visitor Center space for retail sales of packaged food and beverages, to be available whenever the Visitor Center is staffed and open.

In this concept, the Old Comfort Station and Pump House buildings are each identified as opportunities for recreational outfitting and rental uses. The open floor plan and simple shape of the Old Comfort Station lends itself easily to a wider variety of possible uses such as bike or boat rental as it is able to accommodate storage of larger items such as kayaks.

The Pump House, on the other hand, has a small and somewhat peculiar floor plan that would better accommodate retail of smaller items (bike helmets, water bottles, maps, snacks, first aid, etc.). More floor space could be opened up in this structure, but it would require the removal of some of the historic infrastructure that remains in the building. Overall this structure's floor space remains somewhat limited as it still houses the electrical distribution equipment for the other buildings and the cost to relocate this would be substantial.

Given their close proximity to one another, one outfitter or concessionaire could also utilize both buildings together, with the more confined Pump House serving as an office and contact point for patrons, and the Old Comfort Station

Figure 59: Tavern Area Historic Structures Map (GWWO, 2025).

serving as an equipment holding and distribution space for rentals. Combining use of the structures might make them more attractive to a possible concessionaire, and could also improve the function of the Pump House while potentially reducing the need to remove or relocate the existing equipment it houses.

This concept proposes maintaining a food concessions use for the existing Concessions Building, but addressing the building and site issues that require improvement. Repair to the exterior building envelope, as well as any interior issues that need to be addressed, would prepare the building for a long and useful future moving forward. Improving the condition of the brick patio around the building and access to it will also ensure the building is accessible by all visitors, maximizing its use and improving their experience.

The final recommendation in this concept is that the Boiler House remain functioning in its current utilitarian capacity as providing HVAC to the Tavern. The structure functions adequately for this purpose and fills a need that would not be easily addressed elsewhere. Its small size and remote siting make it ill-suited to many other uses.

One of the strengths of this concept is maintaining and increasing access to food and beverage options for patrons, a stated need by both the Park staff and the public discussed in more detail elsewhere in the Plan. Addressing maintenance needs and continuing to utilize the Concessions Building is logical and comparatively simple way to

achieve this goal, while creating a small area for food retail in the Visitor Center itself is a low-cost way to augment and further improve this availability.

Conversely, one of the drawbacks of this concept are the public-facing functions proposed for the Pump House and Old Comfort Station. While the design team feels these two buildings could be adequately repurposed, their siting behind a larger structure not owned by the NPS and off the primary walkway connecting the parking lot, Visitor Center, and towpath could be challenging. These two factors risk making the buildings less immediately obvious to visitors, which could be a drawback for their proposed retail or rental use. However, utilizing the outdoor space around the buildings, coupled with visual aids and signage could help to mitigate this.

Public-Facing Historic Structures Alternative 2

The second concept for the group of public-facing historic structures considered in the Plan has a balanced focus on park operations and the visitor experience when considering uses for these structures (see Figure 60).

Similar to the first concept, the recommendation for the Tavern is to continue its current use as a Visitor Center, classroom, and administrative space for Park staff and their partner organizations, while creating a small retail space

Figure 60: Tavern Area Historic Structures Map (GWWO, 2025).

in the Visitor Center to sell prepackaged snacks and beverages, helping to increase availability of these items to visitors.

Again taking advantage of the simple shape, generally open floor plan, and overall size of the Old Comfort Station, this concept proposes reconfiguring the interior of this space to serve as a meeting and work space. The rectangular shape of the floor plan, coupled with a possible egress door at both ends, lends itself nicely to a space that can function as both a meeting space with chairs lined up in rows or around a group of tables, as well as a collaborative or working office space. This use would augment the current capacity of the Park staff and help meet a stated need. An alternative to this would be to utilize the open space for educational programming with its suitable size to accomodate a classroom of students.

Being mindful of the very unique and restrictive layout of the pump house, coupled with the historic equipment still present in the building, this concept proposes utilizing the Pump House as a historical exhibit space to further tell the story of the functional and infrastructural history of this place. Accommodating this use would likely require fewer interventions and be more in keeping with the historic fabric of the building. Consideration would need to be given to the existing electrical service and equipment when reconfiguring the space, but ideally these elements could remain in place and be screened from view.

This concept proposes the Concessions Building be utilized for an alternate, non-food related use as recreational equipment rentals as the structure is very well sited for visibility and visitor access. Tour guide services should be considered in conjunction with rentals to ensure visitors of the Park safely recreate. Recognizing that the building is likely in need of renovation and upgrades anyway, the interior could be reconfigured to a more open layout accommodating an alternate use. Its exterior features, specifically the patio and retail windows, make it well suited for many types of transactions and visitor interactions beyond food. Similarly to the previous concept, this concept also recommends that the patio and area surrounding the Concessions Building be remediated and upgrade for ABAAS compliance.

Refreshments will be provided through the addition of prepackaged snacks and beverages recommended for the Visitor Center, as well as the continuation or expansion of the food truck program. The possible food truck expansion should consider queuing and other space needs for recreational outfitters.

As in the first concept, this alternative recommends that the Boiler House remain in its current use and capacity in housing the mechanical equipment for the Tavern.

This alternative presents some strengths over the other. First, it addresses goals and needs associated with both visitor use and park operations by including a mix of retail, added interpretation, and administrative space. Second, the proposed uses of some buildings is more in keeping with their existing state, most particularly the Pump House.

Conversely, the primary drawback of this alternative is the recommendation that prioritizes recreational outfitter space over food concessions in the Concessions Building. While other food and beverage options remain available, we understand that having multiple is desirable and increases flexibility and the likelihood of availability. Additionally, while the food truck program could provide a reasonable alternative to concessions from the Concessions Building, in practice the program has struggled with consistency and offering a full complement of food. Weighing the priority of food against the availability of recreational equipment would help determine an appropriate direction for this structure. Maintaining food concessions in this structure would not fundamentally detract from the overall alternative.

Figure 61: Hill-Top Area Historic Structures Map (GWWO, 2025).

Hill-Top Area Historic Structures

Private-Facing Historic Structures Concept

The private-facing historic structures considered as part of the Plan offer opportunities for addressing some of the administrative and operational requirements for Park staff without needing to balance visitor use as much as the more public-facing structures at the bottom of the hill. Again considering the goals of the Park as keeping historic structures beneficially occupied, the design team considered several uses for these buildings that were compatible with their form and character.

We understand from park staff that there are three primary operational needs that these structures could serve. First, they are in need of additional administrative and office space. In particular they could benefit from a meeting space and flexible office space that partner organizations could utilize. Beyond administrative space, the Park staff has a need for additional storage. The Engineer's House is currently being used as an ad hoc storage space for interpretive materials, but is not very well suited for this use given its age and lack of conditioning. Other storage is distributed throughout this area of the Park, but additional space would be beneficial. Finally, the Park staff has

identified a need for additional residential space for staff. The Great Falls Area is located within the community of Potomac in Montgomery County, a particularly affluent suburb where housing costs are prohibitively expensive, particularly for early-career employees, volunteers, and interns. Currently, the Davis House is used as housing for Park staff. Park staff and recruitment would benefit from increasing the available housing.

Comparing these needs against the structures being considered, the design team looked for opportunities to better occupy all structures (see Figure 61). The Engineer's House is small with a disconnected floor plan, and in need of significant remediation work based on the recommendations documented in the Historic Structures Report. Meanwhile, it is the closest structure to the access road leading to this portion of the Park. Its location and small footprint make it less ideal for storage or living space, but reasonably well suited for office and administrative space, which can have more flexible and unique layouts without sacrificing function. Given this, the Plan recommends addressing the necessary repairs to the building envelope, interior, and systems, as well as providing an ABAAS compliant pathway to the entrance, and then utilizing the space as a Ranger Station. This would relocate its current programmed space in the Nash House.

The Nash House was constructed as a residence originally, and we understand its interior is still generally configured as such. Given this configuration and the building's newer vintage, we would anticipate that the extent of work needed to convert it into living space would be minimal. With these assumptions, the Plan recommends addressing the exterior ABAAS compliance from the road to the front door of the house and converting it back to a residential use for park staff.

Again being cognizant of the needs for park housing, the Plan does not recommend any changes to the use of the Davis House. It is recommended that an ABAAS compliant pathway be considered and implemented for access to the front door of the house.

Finally, understanding the Engineer's Garage is functioning well for the needs of the Park, the Plan recommends no change to this building's use either. Any required maintenance or upkeep of the structure is recommended, especially at the building envelope, to mitigate the potential for future damage.

ENDNOTES

Endnotes

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2. Beyer Blinder Belle Architects & Planners. 2020. Great Falls Tavern Historic Structure Report. United States Department of the Interior, National Park Service. Final Report.
3. SmithGroup, Gray and Pape, Silman, Building Conservation Associates, and Axias, Inc. 2023. Civilian Conservation Corps (CCC) Structures Historic Structure Report. United States Department of the Interior, National Park Service. Final Report.
4. MTFA, John Milner Associates, McMullan Consulting Engineers, 2RW Consultants, Inc., and RIB U.S. Cost. 2021. Washington Aqueduct Gatekeeper's House Historic Structure Report. United States Department of the Interior, National Park Service. Final Report.

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APPENDICES

Appendix A - Public Comment Period #1 Summary A1
Appendix B - Public Scoping Presentation B1
Appendix C - Public Comment Period #2 Summary C1

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APPENDIX A - PUBLIC COMMENT PERIOD #1 SUMMARY

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APPENDIX B - PUBLIC SCOPING PRESENTATION

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APPENDIX C - PUBLIC COMMENT PERIOD #2 SUMMARY