

George Washington Memorial Parkway
McLean, VA

National Park Service
U.S. Department of the Interior



South Turkey Run Park

Concept Plan

April 2020

Executive Summary

South Turkey Run Park is an approximately 70-acre site operated and maintained by the George Washington Memorial Parkway, a unit of the National Park Service (NPS). The park's jurisdiction under the NPS dates back to 1971 when the NPS acquired approximately 230 acres. The NPS Director at the time had a special interest in living history farms and was instrumental in setting the theme of this parcel to simulate a low-income 18th-century farm. A Friends group took over management of the farm in the 1980s and provided farm programming while operating under an agreement with the NPS from 1981 to 2018.

The expiration of the operating agreement offered a unique opportunity to re-imagine the visitor experience and park management at South Turkey Run Park. The NPS has developed a series of concept plans for the park to help evaluate a range of visitor experiences and understand their potential management implications. As part of the South Turkey Run Park Concept Plan (Concept Plan), the NPS identified the following planning goals:

GOAL 1: Conduct community outreach and provide opportunities for the public to re-imagine the park

GOAL 2: Explore and identify potential adaptive reuse of existing facilities

GOAL 3: Develop a range of concepts for the park as part of the George Washington Memorial Parkway expanding opportunities for the public to explore the resources and engage in new visitor experiences

The Concept Plan outlines three potential concepts to achieve these goals: Adventure + Exploration (1), Cultivation + Connection (2), and Rejuvenation + Renewal (3). Each of the concepts includes the opportunity to host or attend events, hike through an expanded trail system, and experience more universally accessible areas. The descriptions below highlight some of each concept's key features.

ADVENTURE + EXPLORATION (CONCEPT 1)

The Adventure + Exploration Concept broadens recreation opportunities for visitors to explore varied wooded terrain, study native wildlife habitats, or hone a new outdoor skill. Athletic fields would offer expanded options for a variety of sports and activities.

CULTIVATION + CONNECTION (CONCEPT 2)

The Cultivation + Connection Concept offers hands-on learning and recreational opportunities for visitors to immerse themselves in sustainable agriculture, discover where food comes from and how it grows, or take in the park's wooded landscape. Open fields would also offer a flexible space for visitors to enjoy live entertainment, support local festivals or seasonal events, learn a new activity, or play.

REJUVENATION + RENEWAL (CONCEPT 3)

The Rejuvenation + Renewal Concept enhances the range of natural settings at the park to create a serene environment for visitors to reconnect with the outdoors, focus on personal well-being, or study and engage in habitat restoration efforts. Open fields would also offer a flexible space for a variety of informal play.

Moving Forward

The Concept Plan outlines both existing conditions and the steps needed to move toward implementation. The document describes current conditions; considers the existing structures, both permanent and temporary, for adaptable reuse; and identifies environmental constraints. It also identifies potential partnerships, the regulatory framework for implementation, and potential funding sources.

Finally, the Concept Plan establishes priorities for the NPS, such as installing new park signage, adapting existing NPS systems to allow reservations, and identifying partners for implementing each concept.

Table of Contents

- Executive Summary ES-1
 - Moving Forward ES-1
- Introduction 1
 - Project Background 2
 - Planning Goals..... 2
 - Public Engagement Process..... 4
- Current Conditions..... 6
 - Existing Facilities..... 7
 - Nearby Recreation Opportunities 9
 - Policies and Park Management and Operations..... 10
 - Operational, Maintenance, and Environmental Challenges..... 10
- Concept Recommendations 17
 - Elements Common to All Concepts 18
 - Adventure + Exploration (Concept 1) 21
 - Cultivation + Connection (Concept 2) 24
 - Rejuvenation + Renewal (Concept 3)..... 27
 - Summary 30
- Moving Forward 31
 - Priority Steps to Realizing Concepts 32
 - Funding Opportunities..... 34
 - Potential Partnerships..... 35
 - Regulatory Requirements 38
- References..... 39

Appendices

- Appendix A Public Engagement Process..... A-1
- Appendix B Existing Structures B-1
- Appendix C Future Concept Adaptations C-1
- Appendix D Visitor Capacity..... D-1
- Appendix E Cost Estimates..... E-1



Introduction

The National Park Service seeks to re-envision recreation and education opportunities, visitor experiences, and facilities at the approximately 70-acre South Turkey Run Park in McLean, Virginia.



This Concept Plan presents three concepts for the future use and enjoyment of South Turkey Run Park under consideration by the NPS. The Concept Plan is the first step in the overall decision-making process for the future of South Turkey Run Park. Proposed actions in these concepts would require additional environmental and historical preservation compliance prior to implementation. Furthermore, implementation may occur over time as funds become available.

South Turkey Run Park is located south of the Potomac River in Turkey Run Park, one of the many landscape areas managed by the NPS along the George Washington Memorial Parkway (**Figure 2**). The George Washington Memorial Parkway unit of the NPS currently operates and maintains the park.

Project Background

South Turkey Run Park's jurisdiction under the NPS dates back to 1971 when the NPS acquired approximately 230 acres from the U.S. General Services Administration that became the Turkey Run Farm at Turkey Run Park. The NPS Director at the time had a special interest in living history farms and was instrumental in setting the theme of this parcel to simulate a low-income 18th-century farm. The farm was a representation only, as there was no historical evidence that this area was once a colonial farm. In the 1980s, a Friends group stepped forward to take over management of the farm. The Friends group changed the farm name to

Claude Moore Colonial Farm in the late 1990s after a private endowment from Dr. Claude Moore. The Friends group provided day-to-day colonial-themed programming at the farm while operating under an agreement with the NPS from 1981 to December 2018.

In September 2019, the NPS identified a new name for the park, South Turkey Run Park. The new park name better reflects the park's connection to Turkey Run Park and the larger George Washington Memorial Parkway, highlights the re-imagined park facilities to accommodate multiple activities, and reinforces expanded recreation and education opportunities.

Planning Goals

The NPS developed the following goals for the Concept Plan at the beginning of planning process.

GOAL 1

Conduct community outreach and provide opportunities for the public to re-imagine the park

GOAL 2

Explore and identify potential adaptive reuse of existing facilities

GOAL 3

Develop a range of concepts for the park as part of the George Washington Memorial Parkway expanding opportunities for the public to explore the resources and engage in new visitor experiences



Figure 1 Public Meeting 1



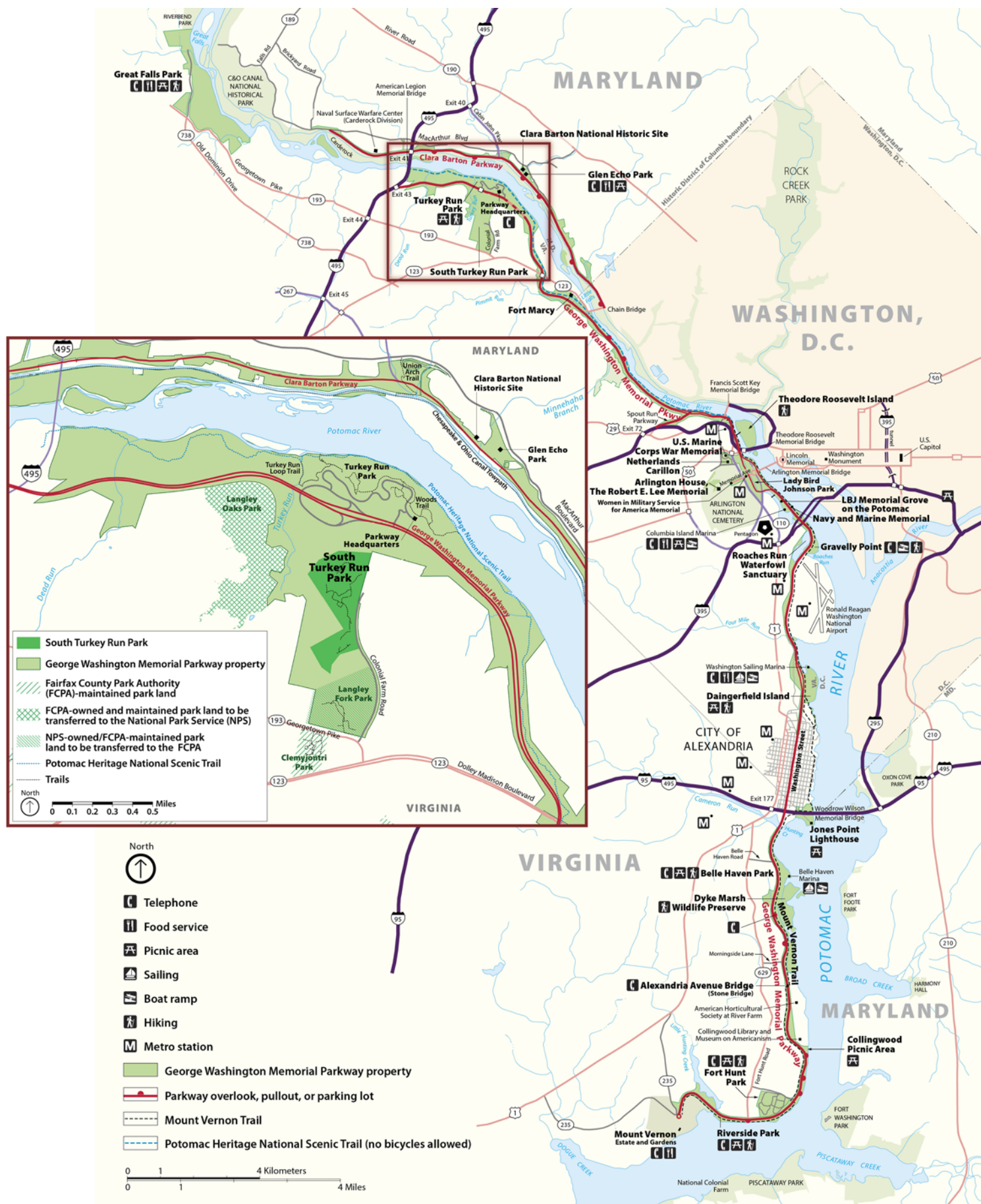


Figure 2 South Turkey Run Park Location

Public Engagement Process

The NPS provided multiple opportunities for public participation in the development of the South Turkey Run Park Concept Plan. The NPS solicited input from the public at the beginning and middle of the planning process to a) identify the public's vision for the park and b) receive feedback on an initial range of concepts, respectively.

PUBLIC COMMENT PERIOD 1

The NPS held a 30-day public comment period (April 25, 2019-May 25, 2019), including one public meeting, for the public to share their vision for the park's future and identify any issues or concerns they might have with the project (**Figure 1** and **Figure 3**). The NPS outlined the plan goals and asked commenters to share ideas on the following:

- What do you like to do at the park?
- What would you like to do at the park in the future?
- Where would you like that activity to take place?
- Tell us about your visits to the park and activities that you have envisioned could happen here
- Play & Activities: What would you like to do at the park?

Additional information about Public Comment Period 1, including a summary of comments received, is available in **Appendix A**.



Figure 3 Public Meeting 1 Comment Boards

PUBLIC COMMENT PERIOD 2

The NPS held a second 30-day public comment period (September 26, 2019-October 26, 2019), including a public meeting, to present an initial range of concepts for the park that considered comments received during the first public comment period (**Figure 4**). The concepts outlined the physical improvements for potential implementation and the potential activities that visitors could engage in.

- Adventure + Exploration (Concept 1)
- Cultivation + Connection (Concept 2)
- Rejuvenation + Renewal (Concept 3)

The NPS considered the comments received during the second public comment period in preparation of the revised concepts, as presented in this document. Additional information about Public Comment Period 2, including a summary of comments received is available in **Appendix A**.

COMPILATION OF PUBLIC COMMENTS

NPS staff worked with contractors to compile all comments affixed to the public meeting boards and submitted at the public meetings, via mail, or via the NPS Planning, Environment and Public Comment (PEPC) website during the public comment periods. Ninety pieces of correspondence were received during the first public comment period, and seventy pieces of correspondence were received during the second public comment period. NPS staff made the final determinations about the recommendations in this Concept Plan based on applicable laws and policies, as well as the comments made by the public.



Figure 4 Public Meeting 2



Current Conditions

South Turkey Run Park is a forested area with rolling hills, interspersed open areas, structures, and trails.

In South Turkey Run Park, two distinct areas provided different facilities, recreation opportunities, and visitor experiences (**Figure 5** and **Figure 6**). The northern area contained a living history museum that portrayed family life on a small, low-income 18th Century farm. The farm included day-to-day Colonial-themed programming, seasonal events, and several trails. The southern area provided opportunities for picnics, gatherings, and special events. An open grass field also provided flexible space for active recreation.

Existing Facilities

Approximately 1.1 miles of existing pedestrian trails run through South Turkey Run Park. These trails connect existing structures and parking lots and traverse through the park's wooded areas and along the edges of open areas.

The northern area of the park contains several dispersed structures, fields recently used for crops and livestock pastures, and a small open area recently used for seasonal events. An administrative/maintenance yard area containing several structures is also located near the end of Colonial Farm Road.

The southern area of the park contains four open-air picnic pavilions, restrooms, and a food preparation area, as well as three sand volleyball courts, horseshoe pits, and an open play field.

The park currently includes three parking lots: a paved parking lot and grass overflow parking area in the southern area of the park; a gravel parking lot along Colonial Farm Road; and a larger paved parking lot near the administrative/maintenance yard area.



Figure 5 Existing Facility Site Photos

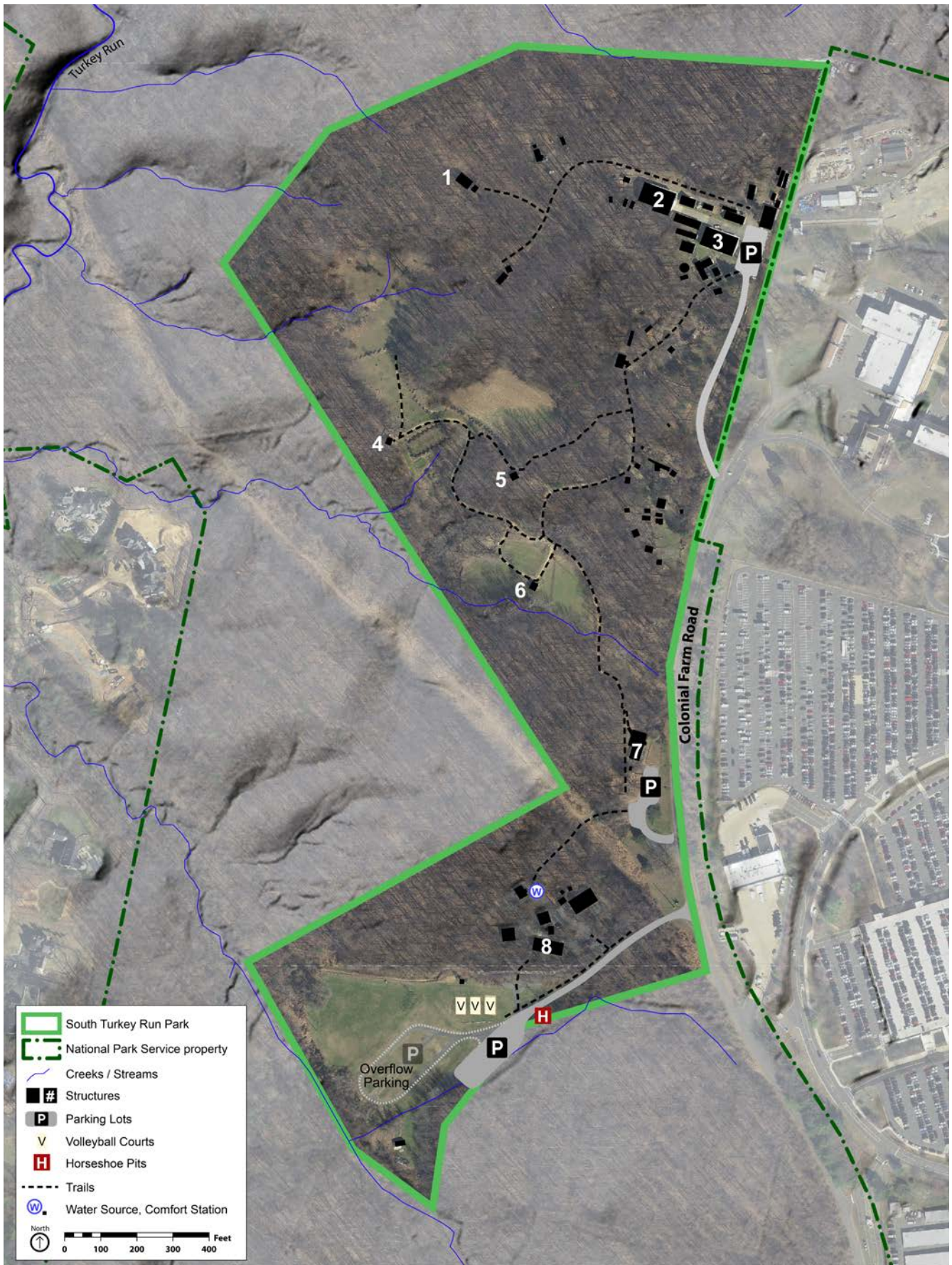


Figure 6 Existing Conditions at South Turkey Run Park

(Note: Existing structures with number labels in the above map are referenced throughout this plan. Photos of these structures are available in **Appendix B**)

Nearby Recreation Opportunities

Several Fairfax County Park Authority (FCPA) areas and NPS parks are located within a two-mile radius of South Turkey Run Park. These facilities offer multiple active and passive recreation opportunities (Figure 7).

Directly south of South Turkey Run Park, Langley Fork Park contains multi-purpose athletic fields, baseball diamonds, basketball courts, and a trail with fitness stations. Farther south, Clemyjontri Park along Georgetown Pike (VA 193) contains an accessible playground, carousel, picnic pavilion, and trails.

A paved shared-use path is also located along the northside of Georgetown Pike (VA 193). This path connects to Colonial Farm Road and extends from Basil Road on Dolley Madison Boulevard (VA 123), southeast of South Turkey Run Park, to Balls Hill Road, west of the park.

North of South Turkey Run Park and the George Washington Memorial Parkway, Turkey Run Park contains trails and picnic tables. A section of the Potomac Heritage National Scenic Trail, an emerging trail network between the mouth of the Potomac River and Allegheny highlands of Pennsylvania, passes through Turkey Run Park along the Potomac River.

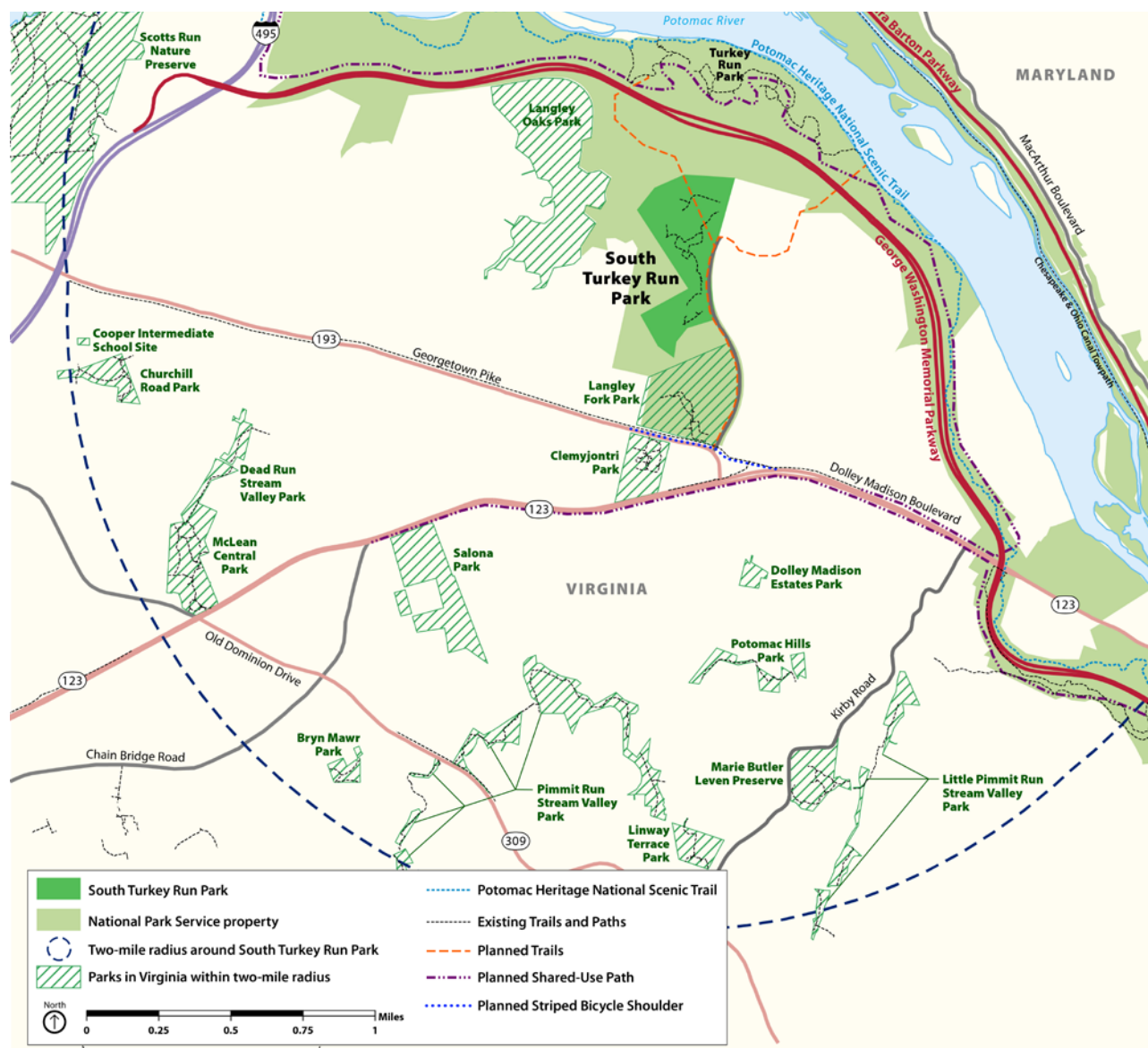


Figure 7 Parks within a Two-Mile Radius of South Turkey Run Park

(Note: **Figure 7** only depicts planned trails and bicycle infrastructure, as identified in the Fairfax County Countywide Trails Plan and Bicycle Master Plan Recommended Bicycle Network, that are within the immediate vicinity of South Turkey Run Park.)

Additional elements provided at parks within two miles of South Turkey Run Park include trails, playgrounds, picnic tables, athletic fields, tennis courts, basketball courts, historic features, and a disc golf course. Select FCPA parks contain community garden plots. However, none of these parks is located within two miles of South Turkey Run Park.

Planned trails in the vicinity of South Turkey Run Park, as identified in the Fairfax County Countywide Trails Plan, include a minor paved trail (i.e., a four- to eight-foot wide asphalt or concrete trail) along Colonial Farm Road, two minor paved trails connecting Colonial Farm Road north to Turkey Run Park, and a major paved trail (i.e., an eight-foot wide or wider asphalt or concrete trail) along Georgetown Pike (VA 193). Recommended future bicycle infrastructure in the vicinity of South Turkey Run Park, as identified in the Fairfax County Countywide Bicycle Master Plan Recommended Bicycle Network, includes a striped shoulder along Georgetown Pike (VA 193) and a shared-use path in Turkey Run Park (County of Fairfax, VA 2014, 2018).

Policies and Park Management and Operations

Several policies and documents, ranging from national laws to park-specific plans, guide the management and operation of the George Washington Memorial Parkway and accordingly, South Turkey Run Park. The Capper-Cramton Act of 1930 established the George Washington Memorial Parkway. Two of the most important documents relating to George Washington Memorial Parkway policies are the Foundation Document for the George Washington Memorial Parkway (2014) and the George Washington Memorial Parkway Long-Range Interpretive Plan (2005). **Table 1** outlines the overall policies, laws, regulations, and NPS Director's Orders (DO) that govern South Turkey Run Park management and operations.

Operational, Maintenance, and Environmental Challenges

The re-envisioning of South Turkey Run Park presents new opportunities for the treatment of park resources and the offering of visitor

experiences. However, maintenance, existing erosion management and invasive vegetation, and natural resources at the park present challenges. The following section outline some of the challenges facing South Turkey Run Park as the concepts are realized. Note that this list is not intended to be an exhaustive list of resources present at the park; instead it is included to provide an overview of the challenges in managing South Turkey Run Park.

Resources that could potentially be affected and the associated environmental consequences, or “impacts” of concept implementation on those resources, would be identified in the future through the National Environmental Policy Act (NEPA) process. Where appropriate, the NEPA process would also identify mitigation measures for adverse impacts.

Historic properties and the potential for adverse effects on historic properties as a result of concept implementation would be identified in the future through the National Historic Preservation Act (NHPA) process. Where appropriate, the NHPA process would also seek to avoid, minimize, and mitigate potential adverse effects.

Note that South Turkey Run Park lies entirely outside of the 100-year and 500-year floodplains (FEMA 2019). No area within the park is classified as wetlands according to the U.S. Fish and Wildlife Service's National Wetlands Inventory (USFWS 2019).

EXISTING FACILITIES

Several buildings and structures are currently located throughout South Turkey Run Park. Each building contains operational, maintenance, and financial implications associated with their retention and use in the future. According to the NPS Management Policies 2006, the NPS “must also recognize the ongoing operation and maintenance costs of its facilities and be able to sustain them over time” (NPS 2006: 124). Facilities, including buildings, trails and utilities, would require the park to manage them as part of the facility management portfolio.

Table 1 Summary of Policies and Guidance for South Turkey Run Park

Policy and Guidelines	Summary
Capper-Cramton Act, 1930 (Public Law 71-284)	Provided federal funds to acquire, establish, and develop the George Washington Memorial Parkway and to acquire lands in the District of Columbia, Maryland, and Virginia requisite to the comprehensive park, parkway, and playground system of the National Capital.
George Washington Memorial Parkway Foundation Document (2014)	Provides basic guidance for planning and management decisions and a focus for park planning activities. Key issues and associated planning and data needs are also identified.
George Washington Memorial Parkway Long-Range Interpretive Plan (2005)	Provides for continuity for the implementation and future development of the parkway's interpretive programming.
36 CFR Part 2 – Resource Protection, Public Use and Recreation	<p>Picnicking is allowed. The superintendent may establish conditions for picnicking.</p> <p>Special events are allowed, provided that there is a meaningful association between the park area and the events, the observance contributes to the visitor understanding of the significance of the park area, and a permit has been issued by the superintendent.</p> <p>Livestock or agriculture use of a park area is prohibited except as specifically authorized by Federal statutory law or as designated, when conducted as a necessary and integral part of a recreational activity or required in order to maintain a historic scene.</p>
36 CFR Part 5 – Commercial and Private Operations	Commercial operations within the park require permits.
36 CFR Part 51 – Concession Contracts	Covers the solicitation, award, and administration of concession contracts. Concession contracts are allowed to provide visitor services in park areas, when they comply with requirements of this part.
NPS Management Policies (2006)	Service-wide policies establishing a broad framework and prescribing parameters for management decisions. Key policy implications are included for interpretation and education, visitor use, special park uses, park facilities, and commercial visitor services.
DO-6: Interpretation and Education	Sets forth operational policies and procedures necessary to maintain effective, high-quality interpretive and educational programs.
DO-7: Volunteers-in-Parks	Provides direction to NPS personnel who are responsible for, and/or involved in, implementing the Volunteers-in-Parks program.
DO-12: Conservation Planning, Environmental Impact Analysis, and Decision-making	Directs the way NPS complies with NEPA, including all aspects of environmental analysis, public involvement, and resource-based decisions.

Table 1 Summary of Policies and Guidance for South Turkey Run Park (Continued)

Policy and Guidelines	Summary
DO-20: Agreements	Establishes NPS policies and procedures for administering agreements and Identifies the types of agreements NPS may enter.
DO-22: Recreation Fees	Sets forth policies and procedures for administering a fee program.
DO-32: Cooperating Associations	Provides guidance on partnerships with cooperative associations and clarifies the responsibilities of NPS and the associations.
DO-53: Special Park Uses	Sets forth policies and procedures for administering special park uses.
National Environmental Policy Act (NEPA), 1969, as Amended	NEPA provides the tools to implement intended goals by requiring that every federal agency prepare an in-depth study of the impacts of “major federal actions having a significant effect on the environment and alternatives to those actions.” It requires that each agency make that information an integral part of its decisions. NEPA also requires that agencies make a diligent effort to involve the interested and affected public before they make decisions affecting the environment.
National Historic Preservation Act (NHPA), as amended through 2000	NHPA of 1966, as amended through 2000, protects buildings, sites, districts, structures, and objects that have significant scientific, historic, or cultural value. The act established affirmative responsibilities of federal agencies to preserve historic and prehistoric resources.
Architectural Barriers Act Accessibility Standards (ABAAS)	Guide design to provide universal access for people of all ages and backgrounds to trails, picnic and camping areas, viewing areas, beach access routes, and other components of outdoor developed areas on federal sites when newly built or altered.

INVASIVE VEGETATION

A 2019 invasive vegetation survey revealed the presence of at least 28 invasive species at the park. The infestation of invasive plants is not uniform throughout the park; some areas require more attention than others. Overall, the largest infestations of invasive plants are located within park area B, near structure #7, around the field in park area D (see **Figure 8**), and on edges of the open field in the southern area of the park. A majority of invasive plants were recorded near existing structures where human activity was previously most frequent. The invasive vines found on the forest edge do not extended farther than 50 to 100 feet into the forest. The most common invasive species on the property include bush honeysuckle (*Lonicera maackii*), bittersweet (*Celastrus orbiculatus*), linden viburnum (*Viburnum dilatatum*), wineberry (*Rubus phoenicolasius*),

beefstake (*Perilla frutescens*), and porcelain berry (*Ampelopsis brevipedunculata*). Butterfly bush (*Buddleia davidii*), boxwood (*Buxus sp.*), curly willow (*Salix matsudana*), and yew (*Taxus sp.*) were only present in manicured landscapes near existing structures (Chief of Resource Management 2019; NPS 2019c).

GRADING AND EROSION

The park has multiple maintained areas, which include bare soil, compacted soil/gravel, sediment erosion, and deposition along and around trails and structures. Specific areas of concern include moderate gully formation or ditch creation adjacent to many built up areas. A severe gully also runs near structure #4. Grading and erosion concerns in specific areas of the park are summarized in **Table 2** (Chief of Resource Management 2019).

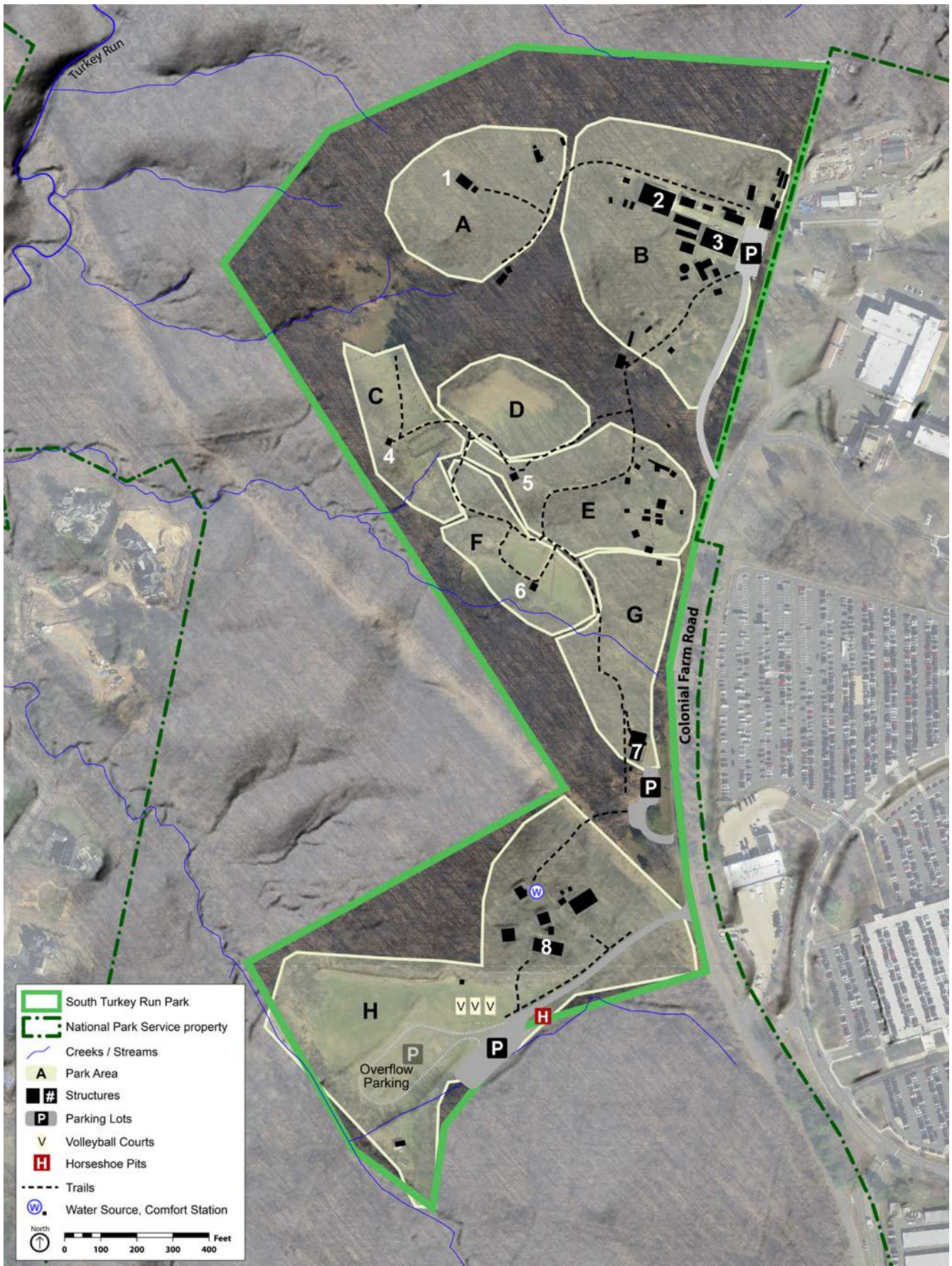


Figure 8 Current Condition Park Areas

Table 2 Grading and Erosion Concerns

Park Area (See Figure 8)	Grading and Erosion Concerns
A	<ul style="list-style-type: none"> • Erosion in forested swale, perhaps due to water from a water line on the soil surface • Previous earth moving between structure #1 and the nearby open field still causes erosion and sediment deposition • Uncovered stockpiles • Bare ground with some areas of tire tracks, some areas of dense hooved animal feeding
B	<ul style="list-style-type: none"> • Areas of bare dirt • Uncovered stockpiles • Rills on gravel lay down area and other bare surfaces • Pressure-treated lumber, briquettes, and other trash on the ground • Dumping in natural and man-made swales and ditches • Poorly built swale near the large barn • Poorly constructed and poorly maintained storm-drain system near structure #2; sediment enters the system and is deposited in the forest; water erodes forested areas • Floor drain in structure #2 drains to the forest; floor of structure #2 has extensive areas of petroleum drips
C	<ul style="list-style-type: none"> • Cross-trail erosion • Major eroded gully downhill of structure #4 • Gully contains a non-function rock weir of sorts
D	<ul style="list-style-type: none"> • Commercial operations within the park require permits
E	<ul style="list-style-type: none"> • Minor gullying • Slate pile
F	<ul style="list-style-type: none"> • Moderate trail erosion • Major erosional gully in forest • Cow pen run-off drains to forested wetlands
G	<ul style="list-style-type: none"> • Minor trail erosion
H	<ul style="list-style-type: none"> • Saturated soils, but the overall site is good condition • Areas of bare dirt with tire tracks • Major eroded gully wraps around the field and continues into the forest; sidewalls indicate buried asphalt
Between Areas B and E	<ul style="list-style-type: none"> • Eroding ditch • Runoff from animal pen to forest • Areas of bare dirt • Areas of uncovered stockpiles
Trail leading to entrance of structure #4	<ul style="list-style-type: none"> • Extremely eroded stream – roughly 12 feet of cut banks • Some areas of the gully have been partially filled with solid debris including concrete slabs, which has exacerbated the problem

WILDLIFE

Federally threatened and endangered species that are protected under the Endangered Species Act and potentially may be present at South Turkey Run Park include the threatened Northern Long-eared Bat (*Myotis septentrionalis*) and endangered Rusty Patched Bumble Bee (*Bombus affinis*). Fairfax County is considered within the historic range of the rusty patched bumble bee in Virginia; the species is likely to be present in only 0.1 percent of its historical range.

Specific bird species protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act may also be present in South Turkey Run Park. These birds include the Bald Eagle (*Haliaeetus leucocephalus*), Blue-winged Warbler (*Vermivora pinus*), Golden Eagle (*Aquila chrysaetos*), Prairie Warbler (*Dendroica discolor*), Prothonotary Warbler (*Protonotaria citrea*), Red-headed Woodpecker (*Melanerpes erythrocephalus*), Rusty Blackbird (*Euphagus carolinus*), and the Wood Thrush (*Hylocichla mustelina*) (USFWS 2017, 2018, n.d.).

FOREST INTERIOR AND COVER

The 2016 George Washington Memorial Parkway Natural Resource Condition Assessment (NRCA) presents an assessment of forest cover and forest interior area within the park. Intact and connected forest provides habitat, wildlife corridors, and ecosystem services. Forest interior habitat also provides the highest quality-breeding habitat for forest interior dwelling bird species.

The NRCA calculated forest cover and forest interior area as a percent of the total George Washington Memorial Parkway unit area and a buffer area. Interior forest was defined as mature forested land cover greater than or equal to 100 meters (330 feet) from non-forest land cover or from primary, secondary, or country roads. Overall, the NRCA found that forest cover and forest interior area were very degraded at the scale of the total George Washington Memorial Parkway unit area and the total unit area with the buffer area. However, the NRCA shows South Turkey Run Park as mostly consisting of, and surrounded by,

forest cover. Interior forest is also located within or adjacent to the park.

The NPS could consider the NCRA's recommended next steps for improving the quality of existing forest habitat in future planning and design efforts at South Turkey Run Park. These steps include managing for exotic species and seedling stocking levels (Walsh et al. 2016)

WATER QUALITY

South Turkey Run Park is located within the Turkey Run Watershed. Approximately 95 percent (60 acres) of the park drains to Turkey Run before discharging to the Potomac River. The remaining five percent (three acres), located in the northeastern corner of the park and encompassing the northern parking lot and part of the administrative/maintenance yard area, drains to unnamed tributaries within the watershed before discharging to the Potomac River (County of Fairfax, VA 2008).

The NRCA presents the long-term monitoring results of nine water quality indicators at four stream sampling locations within the George Washington Memorial Parkway, including one location along Turkey Run (Walsh et al. 2016). The Turkey Run sampling location was located north, or downstream, of South Turkey Run Park. Of the nine indicators, measurements for specific conductance, total phosphorus, benthic index of biotic integrity, and physical habitat index at Turkey Run failed against the reference condition. The significance, implications, and common sources of pollution that can affect these four indicators as described below.

- **Specific Conductance:** Electrical conductivity is a measure of the water's ability to conduct electricity. Common sources of pollution that can affect specific conductance include agriculture (primarily from the liming of fields), as well as deicing salts.
- **Total Phosphorus:** Phosphorus is an essential nutrient for plants to live and is frequently the limiting nutrient for plant growth in aquatic systems. A minor increase in phosphorus concentration can significantly affect water quality by changing the population and

community dynamics of algae and diatoms leading to eutrophication. The most common form of phosphorus pollution is in the form of phosphate. Sources of phosphate pollution include sewage, septic tank leachate, fertilizer runoff, soil erosion, animal waste, and industrial discharge.

- **Benthic Index of Biotic Integrity (BIBI):** BIBI is an indicator of the health of the benthic macroinvertebrate communities in a stream.
- **Physical Habitat Index (PHI):** Physical habitat is an integral part of overall stream condition. Components of physical habitat include the diversity of flow conditions, the diversity and stability of substrates, the degree and extent of erosion, the amount of woody debris, and many other factors. These physical factors affect the biological potential of streams by providing the physical template upon which aquatic communities of fish and macroinvertebrates must live.

Although South Turkey Run Park makes up only approximately eight percent of the total area that drains to Turkey Run (approximately 704 acres), the NPS could consider the NRCA's recommended next steps for improving these indicator conditions in future planning and design efforts for the park. These steps include the following:

- Identify areas of the park more susceptible to salt runoff (sensitive areas) and implement best management practices (BMPs) (e.g., salt alternatives)
- Minimize soil disturbance
- Implement BMPs such as riparian buffers and no-mow areas
- Manage the volume and velocity of water runoff from impervious surfaces (e.g., swales, riparian buffers, and no-mow areas)

ARCHEOLOGICAL RESOURCES

It is currently unknown if any archeological resources are present at the park. However, archeological resources have been identified in Langley Fork Park and Langley Oaks Park located directly south and northwest, respectively, of

South Turkey Run Park. A Phase I archeological survey completed for Langley Fork Park identified an archeological district, which is eligible for listing in the National Register of Historic Places (NRHP), and nine archeological sites. These sites include two prehistoric quarries and workshops, three prehistoric lithic scatters, a historic artifact scatter, a historic tenant farmstead (19th-20th century), a farmstead (19th-20th century), and midden and farm outbuildings (late 19th-20th century). Reconnaissance-level surveys and a limited Phase I archeological survey at Langley Oaks Park also identified eight archeological sites, which have prehistoric occupations of an unknown age (NPS 2018).



Concept Recommendations

South Turkey Run Park is re-envisioned as a natural resource through three concepts that introduce new ways for visitors to access and experience the park, accommodate multiple activities, and expand recreation and education opportunities.

The three concepts each include multiple improvements that build upon existing park resources to retain existing facilities, expand or adaptively reuse existing facilities, and/or install new recreation facilities. However, no new buildings would be constructed in the concepts. New facilities would be carefully situated and designed to avoid large tree removal, sensitive habitats, and steep and unsustainable slopes, as well as protect other resources identified in the future through the NEPA and NHPA processes as necessary.

Existing facilities could be re-utilized through creative programming and provide opportunities for collaboration with volunteers, cooperating associations, concessioners, and other partners to provide interpretive and educational services at the park. Some improvements could require additional staffing from either the NPS or partner organizations.

Examples of organized activities and events identified in the concepts do not represent an exhaustive list, but rather identify the types of activities and events possible in select areas of the park. Activities and events would comply with all applicable NPS policies, laws, and regulations. It should also be noted that in accordance with NPS Management Policies 2006, “[a]ny facility development, whether a new building, a renovation, or an adaptive reuse of an existing facility, would include improvements in energy efficiency and reduction in greenhouse gas emissions for both the building envelope and the mechanical systems that support the facility” (NPS 2006: 126).

In the event specific facilities are removed, the park area occupied by the facilities could continue to provide recreational and educational opportunities for visitors. Potential future “back-up plans” for these areas are identified in **Appendix C**.

Elements Common to All Concepts

HOST OR ATTEND EVENTS

South Turkey Run Park would continue to provide venues for picnics, family and friend gatherings, special events, and outdoor classes. The NPS would retain the four existing open-air pavilions and supporting structures in the southern portion of the site to provide space for these activities; no new pavilions would be constructed. The NPS would make the pavilions available for public use on a first-come, first-serve basis or through a recreation fee, reservation, and permit system.

HIKE EXPANDED TRAIL CONNECTIONS

South Turkey Run Park would offer expanded opportunities for visitors to experience nature, independently or as part of an organized event. Park visitors would have the opportunity to:

- Walk, hike, or run along trail loops with options for shorter and longer routes and with varying levels of difficulty
- Attend NPS Ranger-led interpretive talks and tours
- Participate in Junior Ranger or other youth-oriented programs
- View and learn about the park’s plants and animals
- Volunteer
- Experience the park’s forest
- Visit the park’s points of interest

Table 3 Expanded Trail System

Concept	Existing Trails Closed (Miles)	Existing Trails Retained (Miles)	New Trails (Miles)	Total Expanded Trail System (Miles)
Adventure + Exploration	0.2	1.0	0.6	1.6
Cultivation + Connection	0.3	0.8	0.4	1.2
Rejuvenation + Renewal	0.2	0.9	0.5	1.4

In order to enable this opportunity, the NPS could add new trails to improve connectivity between existing trails, create an expanded pedestrian trail system in the park, and connect South Turkey Run Park with adjacent and nearby open spaces.

Table 3 summarizes the approximate length of the expanded trail system in each concept. New trails would be designed, constructed, and maintained according to appropriate trail design standards. Small sections of existing trails could be closed to allow for successional forests to overtake existing short loop trails and/or preserve the privacy of groups using the event space. Interpretation points or wayside exhibits along the trails could interpret the park's on-site resources and natural systems.

The northern portion of the park could provide external pedestrian trail connections to Turkey Run Park and the Potomac Heritage National Scenic Trail. The existing utility easement could be converted to a bicycle trail that connects to Langley Oaks Park (**Figure 9**). An external bicycle trail connecting the southern boundary of the park to Langley Fork Park could also be established along Colonial Farm Road. These external trail connections would provide and strengthen pedestrian and bicycle access to South Turkey Run Park. In coordination with future planning efforts, the park's trail system could also provide future potential connections to surrounding FCPA and other NPS park land.

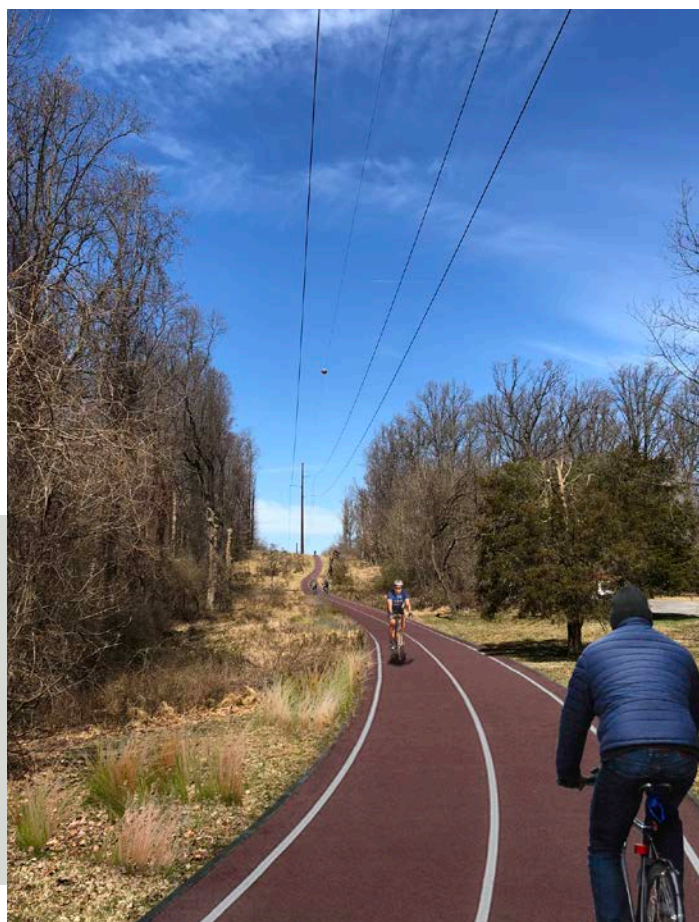


Figure 9 Utility Easement Re-imagined as a Bicycle Trail

EXPERIENCE ACCESSIBILITY
IMPROVEMENTS

New user groups and individuals could have multiple opportunities to experience the park, including accessing the park’s wooded environment or other points of interest and hosting or attending special gatherings, activities, and events. The NPS could establish universally-designed facilities by converting existing trails, building new trails, updating Pavilion B (structure #8), and constructing a pathway to the open field in the southern area of the park according to the 2015 Architectural Barriers Act Accessibility Standards (ABAAS) standards to provide universal access for visitors with physical disabilities in each concept. Connecting parking lots, comfort stations, and other related elements would also be updated to comply with ABAAS, if these standards are not currently met.

Table 4 summarizes the approximate length of accessible trails in each concept. Additional accessibility improvements are described subsequently in each concept section.

PARKING

The NPS could retain the existing parking lots to accommodate visitors and provide access to various areas of the park. The parking lots would not be expanded in any of the concepts.

Two concepts presented in this document, Adventure + Exploration (Concept 1) and Cultivation + Connection (Concept 2), could retain all three existing parking lots for visitor parking. Rejuvenation + Renewal (Concept 3) could retain the southern existing parking lot for visitor parking, remove the middle existing parking lot and reforest with native species, and retain the northern existing parking lot for NPS-only parking. These parking changes could enhance the quiet and natural character of the northern area of the park and provide a tranquil trail experience.

Table 4 Accessible Trails

Concept	Existing Trails Converted to Accessible Trails (Miles)	New Accessible Trails (Miles)	Total Accessible Trails (Miles)
Adventure + Exploration	0.2	0	0.2
Cultivation + Connection	0.1	0	0.1
Rejuvenation + Renewal	0.2	0.1	0.3

Adventure + Exploration (Concept 1)

The Adventure + Exploration Concept broadens recreation opportunities for visitors to explore varied wooded terrain, study native wildlife habitats, or hone a new outdoor skill. Athletic fields would offer expanded options for a variety of sports and activities (**Figure 11**).

NEW PROJECTS AND PROGRAMS

Engage in Outdoor Adventure and Education

Visitors to South Turkey Run Park could participate in multiple activities, including the following:

- Organized group meetings (e.g., scouts, youth groups, and outdoor clubs)
- Environmental education classes or camps related to the park's plants, animals, and other on-site resources
- Outdoor adventure classes or camps (e.g., camping skills, map reading, wilderness first aid)
- Volunteer
- Obstacle-based exercise

The NPS could repurpose the administrative/maintenance yard area into an outdoor exploration and adventure facility to provide classes or camps

for alternative outdoor recreation activities. Structures #2 and #3 could be adapted to provide an indoor space for visitor activities, as well as facility operations.

The outdoor exploration and adventure facility could serve as a base for environmental education programming throughout the park. The adapted structures could host NPS-led lectures and provide a starting point for NPS-led hikes and programs across the greater park area (e.g., scavenger hunts or orienteering). The NPS could also install interpretive signage along the park's expanded trail system to provide additional visitor opportunities to learn about the park's resources.

A series of cross training obstacles or exercise stations, such as a slackline station or logs for visitors to jump over or step onto, could be added in select locations along the park's expanded trail system (**Figure 10**). The obstacles could be located just off the trail for optional use to ensure unimpeded circulation on the main trail. These obstacles would complement the existing alternative, adventure-based recreation opportunities for visitors within the George Washington Memorial Parkway, such as rock climbing at Great Falls Park and bicycle "learn to ride" programs at Jones Point Park.



Existing

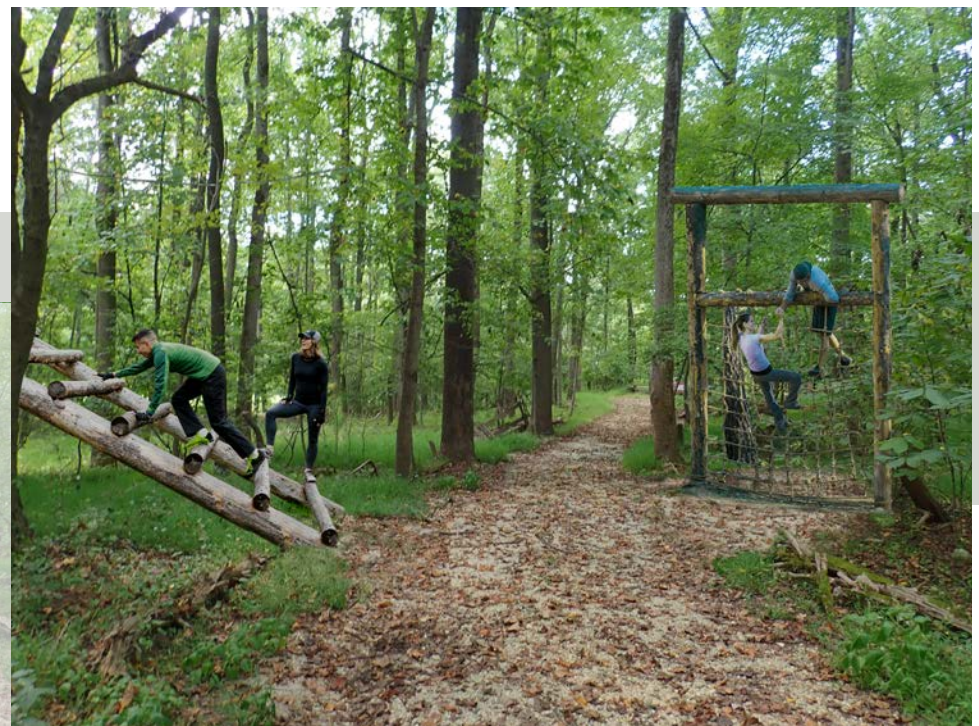


Figure 10 Existing Trail Re-imagined with a Series of Obstacles

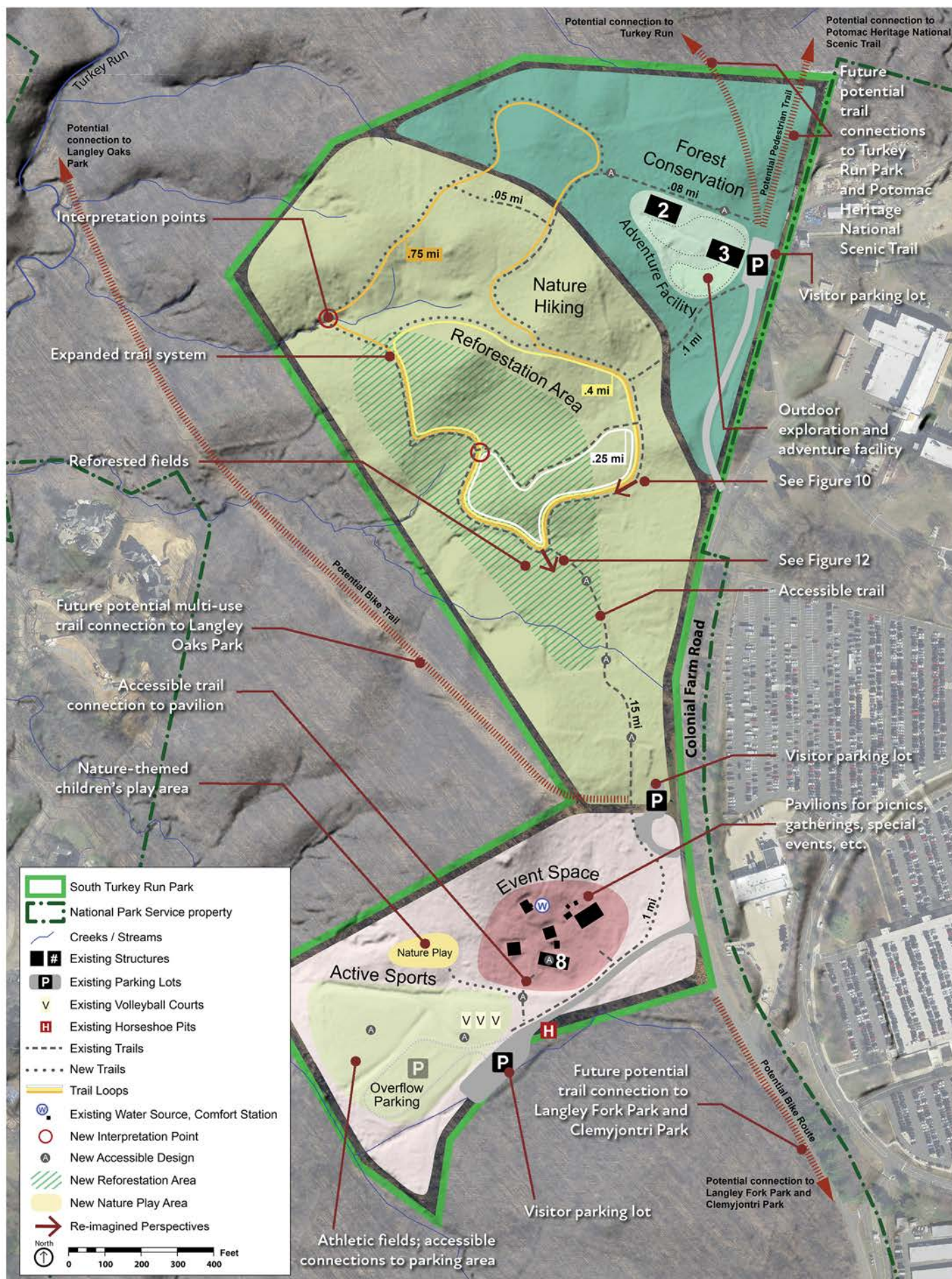




Figure 12 Existing Open Fields Re-imagined as a Reforested Area

A new nature-inspired play area in the southern area of the park could provide a designated space within the park for children to connect, play, and learn in nature. The play area's use of natural materials, such as log balance beams, and the incorporation of native plant and animal interpretation could enhance children's understanding and experience of the outdoor environment.

Play Sports

Visitors, school teams, camps, and intermediate recreation leagues could have the opportunity to play in organized or pick-up sports at the park. An active sports area could utilize the existing open field in the southern area of the park. Enhancements to the area could include updating the existing backstop, improving the sand and installing new nets at the existing sand volleyball courts, and updating the existing horseshoe pits.

The active sports area would not be marked with dimensions for different sport activities and users would need to bring their own equipment, such as goals or bases, to provide maximum flexibility for accommodating different sport activities.

The NPS could make the active sports area available for organized sports through a recreation fee, reservation, and permit system. Use of the area could otherwise be available to the public and pick-up sports on a first-come, first-serve basis.

Hike through Reforested Fields

Visitors to the park could explore forests at varying stages of growth. Existing open fields in the central portion of the park could be reforested with native species to create a wooded trail experience and additional wildlife habitat (**Figure 12**).

Cultivation + Connection (Concept 2)

The Cultivation + Connection Concept offers hands-on learning and recreational opportunities for visitors to immerse themselves in sustainable agriculture, discover where food comes from and how it grows, or take in the park's wooded landscape. Open fields would also offer a flexible space for visitors to enjoy live entertainment, support local festivals or seasonal events, learn a new activity, or play (**Figure 14**).

NEW PROJECTS AND PROGRAMS

Learn at an Interpretive Farm

South Turkey Run Park could provide multiple opportunities for visitors to observe and engage in farm-based activities, including the following:

- Learn about farming practices, local crops, sustainable agriculture, etc.
- Attend NPS Ranger-led interpretive talks and tours
- Volunteer

Existing open fields and structures in the central portion of the park could be adapted to create an interpretive, produce farm. Interpretive Farm A could include three agricultural fields totaling almost one acre and an adapted existing structure #6 (**Figure 13**). Depending on resource availability and partnership interest, a second farm, Interpretive Farm B, could be established north of Interpretive Farm A and include a 0.7-acre agricultural field and an adapted existing structure #4. At both farms, the agricultural fields would be planted with vegetable, herb, fruit and/or grain crops. Structures #4 and #6 could be adapted to provide interpretation for the farms and/or storage space for farming materials and tools. Water utility hookups and a deer-exclusion fence around the agricultural fields would be necessary for successful operation at both interpretive farms.



Figure 13 Existing Open Fields Re-imagined as an Interpretive Farm



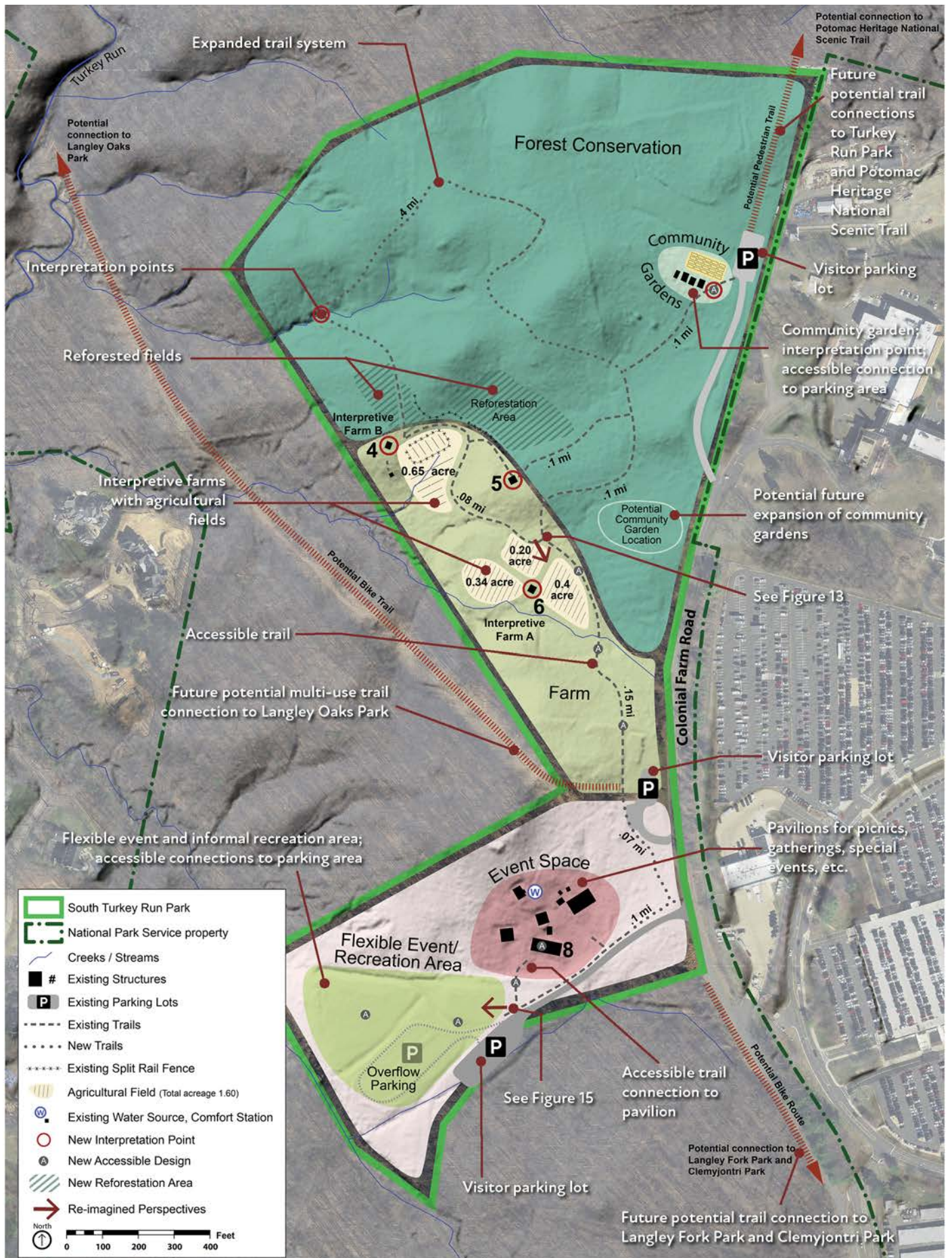


Figure 14 Cultivation + Connection Concept (2)

Tend a Community Garden

The park could provide a community space for local residents and visitors to:

- Grow and access fresh produce
- Learn about gardening practices and local produce
- Increase physical activity through garden maintenance activities
- Develop social connections with other gardeners
- Volunteer

The NPS could repurpose the administrative/maintenance yard area into a community garden. Existing greenhouses could be adapted for the community garden. Other small existing structures could be adapted to provide storage space for gardening materials and tools. Depending on resource availability and potential gardener interest, the community garden could potentially expand to an existing open area located further south in the park near Colonial Farm Road. Water utility hookups could be provided in this second garden location.

Play and Attend Events

South Turkey Run Park could accommodate a wide range of events and informal recreation activities. Visitors could:

- Attend community gatherings, fairs, festivals, small concerts or performances, or pop-up events
- Host school field days
- Engage in seasonal events associated with the interpretive farms or community gardens
- Join families or friends in playing pick-up sports, throwing or kicking a ball, throwing a frisbee, etc.

The southern area of the park could be enhanced to provide a flexible event/recreation area that maximizes existing open space available for events and expands potential event opportunities. The existing backstop could be removed. The three existing sand volleyball courts and horseshoe pits could also be replaced with lawn to provide nearby flexible open space for groups using the pavilion event space or to simultaneously accommodate multiple groups or events in the area. Event organizers would need to bring in their own equipment, such as chairs, tables, and tents. The field would remain free of permanent structures. Festival and picnicking opportunities at the park, as highlighted in **Figure 15**, would connect to other visitor experiences within the George Washington Memorial Parkway, such as festivals at Glen Echo Park and picnicking at Great Falls Park, Turkey Run Park, Jones Point Park, and Fort Hunt Park.

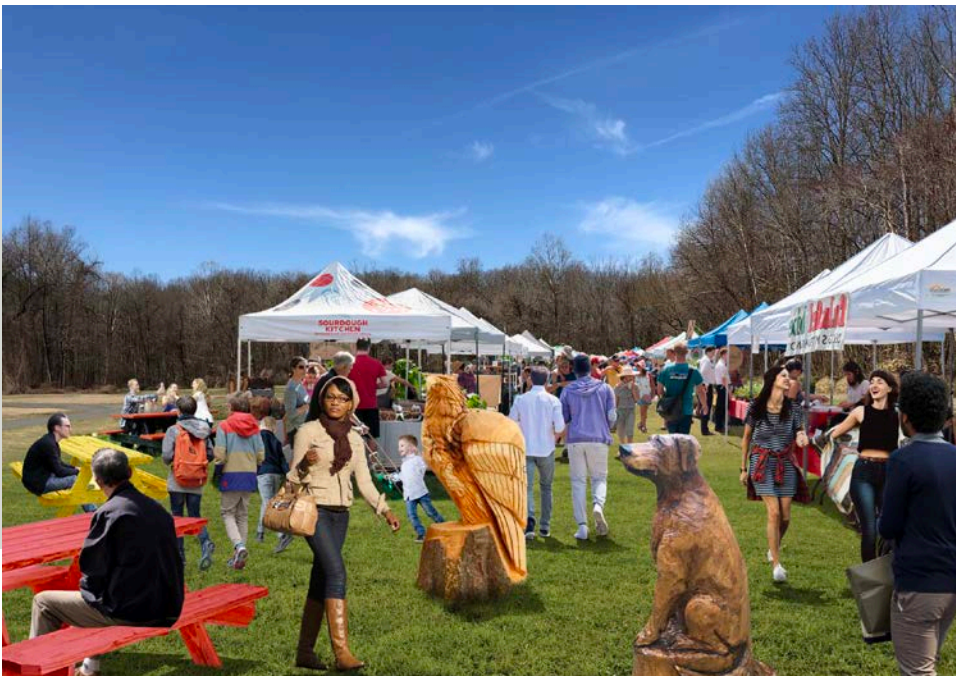


Figure 15 Volleyball Courts Re-imagined as Festival Space

The improved area could also provide an appropriate space for informal sporting and recreation activities. The area would not be marked with dimensions for different sport activities and users would need to bring their own equipment.

The NPS could make the flexible event/recreation area available for programming opportunities through a recreation fee, reservation, and permit system. Use of the area could otherwise be available to the public for informal recreation activities on a first-come, first-serve basis.

Hike Expanded Trail Connections

The expanded trail system could provide visitors the opportunity to explore the park's forested terrain. Existing open fields not used for the interpretive farm could be reforested with native species to create a wooded trail experience and provide additional wildlife habitat. Existing structure #5 could be adapted to provide interpretation along the park's trail system.

Experience Accessibility Improvements

Visitors with physical disabilities could engage in gardening activities at the park. In addition to the accessibility improvements previously described for all three concepts, a section of the community garden would be designed and constructed according to ABAAS.

Rejuvenation + Renewal (Concept 3)

The Rejuvenation + Renewal Concept enhances the range of natural settings at the park to create a serene environment for visitors to reconnect with the outdoors, focus on personal well-being in a meditative setting, or study and engage in habitat restoration efforts. Open fields would also offer a flexible space for a variety of informal play (**Figure 16**).

NEW PROJECTS AND PROGRAMS

Visit a Reforestation Nursery

South Turkey Run Park could become a unique educational designation for schools and other organized groups and offer opportunities for visitors to:

- Attend conservation/reforestation-based field trips, seminars, classes, and tours
- Volunteer in reforestation efforts
- Participate in internship programs
- Host or attend organized group meetings

The NPS could repurpose the administrative/maintenance yard area into a reforestation nursery. Existing structure #2, greenhouses, and other small structures could be adapted for nursery use and storage space for materials and tools. Structure #2 could also be adapted to provide indoor meeting or classroom space. A reforestation nursery at the park could provide seeds, seedlings, and plants for on- and/or off-site reforestation projects. Such projects could provide a variety of ecological benefits such as restoring native ecosystems, enhancing wildlife habitat, increasing canopy coverage, reducing soil erosion, improving air and water quality, etc.

The reforestation nursery could also complement the NPS's existing greenhouse at Daingerfield Island in Alexandria, Virginia. The Daingerfield Island greenhouse is used to propagate legacy plants and primarily serves the NPS National Mall and Memorial Parks unit and the iconic cherry trees. The Daingerfield Island greenhouse is not open to the public.

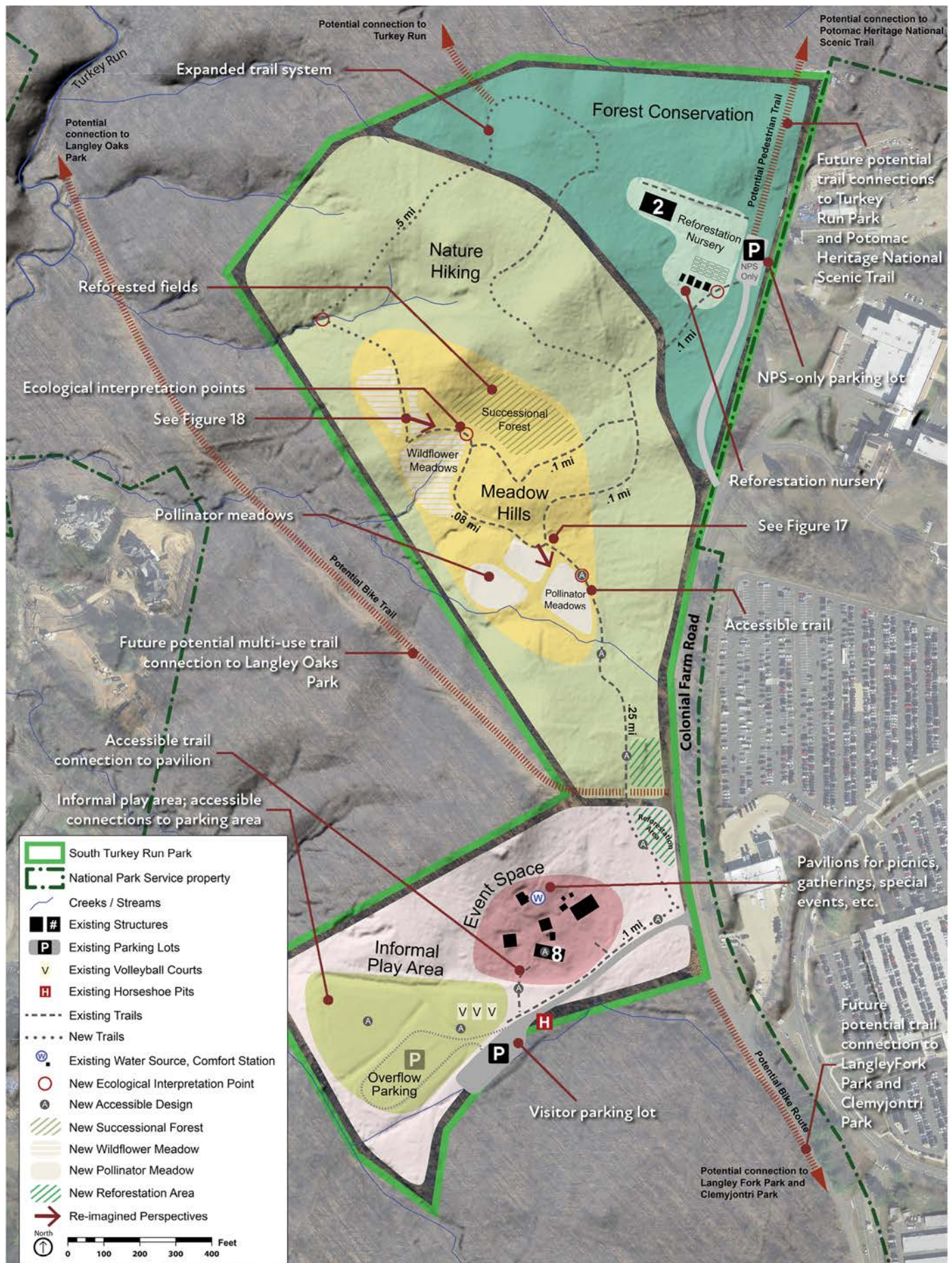


Figure 16 Rejuvenation + Renewal Concept (3)

The South Turkey Run Park reforestation nursery could augment the existing NPS greenhouse operations by providing a nursery for use by the George Washington Memorial Parkway and including a public education component. Given the location of the Daingerfield Island greenhouse in the 100-year floodplain, the reforestation nursery could also serve as the more resilient future base of greenhouse operations.

Experience Multiple Habitat Types

A successional forest, wildflower meadows, and pollinator meadows could create additional wildlife habitat in the park and provide park visitors the opportunity to:

- Experience multiple habitat types (woods, meadow hills, pollinator meadows)
- Engage in a tranquil trail experience
- Attend NPS Ranger-led interpretive talks and tours about the habitats
- View and learn about the park's plants and animals

Existing open fields in the central portion of the park could be planted with a variety of low-profile native vegetation to create pollinator meadows, which attract pollinator species, and wildflower meadows (**Figure 17**). A successional forest consisting of native species could be allowed to overtake another existing open field. These multiple habitat types would be available for interpretation through ecological interpretation points or wayside exhibits along the park's trail system. Visitor opportunities to engage in these habitats, as highlighted in **Figure 18**, would tie into other visitor experiences along the George Washington Memorial Parkway, such as bird watching at Dyke Marsh Wildlife Preserve or observing wildflowers at Turkey Run Park.



Figure 17 Existing Open Fields Re-imagined as a Pollinator Meadow

Play in Informal Area

South Turkey Run Park could offer a flexible space for informal play activities where visitors could:

- Organize smaller informal events
- Play with youth groups
- Participate in informal pick-up games
- Host supplemental activities connected to pavilion events (e.g., reunions and business picnics)

The southern area of the park could remain as-is (i.e., with the existing open field, backstop, sand volleyball courts, and horseshoe pits) to provide an informal area for the above-described activities. Event organizers and users would need to bring their own equipment.

The NPS could make the informal area available for scheduled events through a recreation fee, reservation, and permit system. Use of the area could otherwise be available to the public for informal recreation activities on a first-come, first-serve basis.

Summary

The NPS will consider the options outlined in this Concept Plan. At this time, the activities and improvements identified in this document can be implemented independently, or as part of a larger implementation strategy that crosses across multiple concepts. In other words, the NPS can mix-and-match the activities and facilities outlined in these concepts to best meet the project goals.



Figure 18 Visitors Viewing Wildlife along Trail



A photograph of a forest scene. In the foreground, there are several large, mature trees with thick trunks and dense green foliage. The ground is covered with fallen leaves and a path of gravel and dirt. In the background, a small log cabin is visible through the trees, situated on a grassy clearing. The overall atmosphere is peaceful and natural.

Moving Forward

The following chapter identifies first actions and potential funding sources and partners for implementing improvements included in the concepts. Potential regulatory compliance steps are also described.

Priority Steps to Realizing Concepts

The following section outlines priority steps, including operations and maintenance strategies, the NPS would take to realize each of the concepts in the plan. The order in which these steps are listed do not reflect their relative significance.

Actions included in this plan will be reviewed holistically to determine and understand the potential implications of new uses or changes to facilities, programming, and operations and maintenance. The NPS will conduct the appropriate level of review, including a NEPA and NHPA analysis, to comply with applicable laws and policies. The implementation of proposals in this plan will be reviewed in accordance with laws and policies on a case by case basis.

COMMON TO ALL CONCEPTS

- **Develop strategy for interim public use of existing park facilities.** The NPS would need to develop an approach to allow for public use of the park's existing amenities, such as the trails, picnic pavilions, open field, and volleyball courts, while the decision-making process for the future of the park continues. The Concept Plan is the first step in the overall decision-making process and additional environmental and historic preservation compliance is needed prior to implementation. The NPS would also need to develop a maintenance plan for interim public use of the park.
- **Utilize existing NPS systems, such as Recreation.gov, to establish a recreation fee collection, permitting, and reservation system for select areas.** The NPS would need to determine appropriate uses for each area, which uses require permits/reservations, and associated fees, rules, and regulations.
- **Develop maintenance plan for existing open field.** The NPS would need to identify a maintenance schedule for mowing of the existing open field in the southern area of the park and associated staffing required so that the area is available for uses identified in each concept. Maintenance costs could potentially be subsidized from rentals.

- **Identify and establish a relationship with a partner, such as non-profit organization, for trail construction and/or maintenance.** Working within the NPS regulatory framework, the NPS could partner with an appropriate organization to construct new trails, improve existing trails, and/or provide routine maintenance of the park's expanded trail system.
- **Utilize the George Washington Memorial Parkway Long-Range Interpretive Plan (2005) to develop an interpretive and educational program plan.** The plan would identify appropriate themes and content for interpretation points or wayside exhibits along the park's expanded trail system and educational and interpretive programs offered by the NPS or cooperating partners at the park.
- **Develop a reforestation/habitat restoration plan.** The three concepts each propose reforested areas, successional forests, wildflower meadows and/or pollinator meadows. The NPS would need to identify native species appropriate for these habitat types, determine future or ongoing maintenance needs and associated staffing required, and if necessary, seek potential partners to fund and/or lead the replanting and maintenance efforts.
- **Design and install new park signage.** New park entrance signs with the new park name and a prominent display of the George Washington Memorial Parkway unit title would introduce the re-imagined South Turkey Run Park and increase public awareness of the park's physical, operational, and thematic connection to the larger George Washington Memorial Parkway.

ADVENTURE + EXPLORATION (CONCEPT 1)

- **Identify and work with a partner, such as an outdoor adventure-based organization, to establish the outdoor exploration and adventure facility.** Working within the NPS regulatory framework, the NPS could identify an appropriate organization to enter into a cooperative agreement with. The NPS would work with the partner to identify changes needed to existing buildings, structures, and other infrastructure in the administrative/

maintenance yard area in order to accommodate the outdoor exploration and adventure facility. The NPS and partner would also need to determine appropriate program offerings and ongoing funding, operations, and maintenance responsibilities of each party.

- **Plan and design nature-themed children's play area.** The NPS would need to identify a company that specializes in natural play environments to design, construct, manufacture, and install the play area. A collaborative partnership between the NPS and such a company could help the NPS determine the appropriate size and specific location of the play area.

CULTIVATION + CONNECTION (CONCEPT 2)

- **Identify a management strategy for the community garden.** The NPS could explore how other community gardens on NPS land in the region, such as the Jones Point Park Gardens, Fort Dupont Community Garden, Fort Stevens Community Garden, or Glover Park Community Garden, operate and their funding, infrastructure, and maintenance needs. This research could reveal advantages and disadvantages of a garden managed by NPS as opposed to a community garden association. The NPS could utilize this information to determine an appropriate management model for South Turkey Run Park's garden and potential next steps to realizing the garden.
- **Identify and work with a partner, such as an agricultural organization, to establish the interpretive farm.** Working within the NPS regulatory framework, the NPS could identify an appropriate organization to enter into a cooperative agreement with. The NPS would work with the partner to identify an appropriate farm program, required infrastructure for farm operations, and funding, operations, and maintenance responsibilities of each party.

REJUVENATION + RENEWAL (CONCEPT 3)

- **Evaluate reforestation needs within the George Washington Memorial Parkway and other regional NPS operations.** The NPS could review upcoming and existing projects within the George Washington Memorial Parkway, and other locations in the region, to determine the types of plants needed for reforestation activities. This review would also inform the appropriate scale for the operation of a reforestation nursery.
- **Identify and work with a partner, such as a conservation organization, to establish the reforestation nursery.** Working within the NPS regulatory framework, the NPS could identify an appropriate organization to enter into a cooperative agreement with. The NPS would work with the partner to identify changes needed to existing buildings, structures, and other infrastructure in the administrative/maintenance yard area in order to accommodate the reforestation nursery. The NPS and partner would also need to determine funding, operations, and maintenance responsibilities of each party, as well as appropriate program offerings.

Funding Opportunities

DIRECT APPROPRIATIONS

The most direct method of funding would be to receive appropriations as part of the NPS's annual budget. The NPS would submit funding for specific capital projects. Similarly, maintenance could be included in the request.

POTENTIAL FUNDING PARTNERS AND GRANT OPPORTUNITIES

Partnerships allow the federal government to accomplish goals that could otherwise be made difficult due to funding or regulatory requirements. Partnerships would need to advance the goals and be consistent with the mission of the NPS. Existing and potential partnerships identified could help leverage funds available to participate in specific programs. Partnerships also have the ability to conduct fundraising events where the NPS would be the indirect beneficiary.

Grant funding could also be obtained from multiple sources. Examples of potential federal, state, non-profit, and corporate/private funding partnerships and grant opportunities are listed below.

Federal Sources

- **Federal Lands Transportation Program (FLTP):** The FLTP funds projects that improve access within the Federal lands (including national parks) to transportation facilities in the national Federal Lands transportation inventory and owned and maintained by the Federal government. Eligible activities include provisions for pedestrians and bicycles and any transportation project eligible under title 23 of U.S. Code that is on a public road within or adjacent to, or that provides access to, Federal lands open to the public.

State Sources

- **Virginia Land Conservation Fund (VLCF):** The VLCF provides state funding to conserve the protection of open spaces and parklands, lands of historic or cultural significance, farmlands and forests, and natural areas. A portion of the fund may be used for developing properties for public use. Agencies, localities, public bodies, and non-profit organizations are eligible to apply for funding.

- **Virginia Recreation Trails Program (VRTP):** Administered by the Virginia Department of Conservation and Recreation, the VRTP funds trail construction, trail rehabilitation, and features that facilitate the access and use of trails by persons with disabilities. Funding is available directly to the NPS if teamed with a private trail group or organization.

Non-Profits

- **National Park Foundation:** The National Park Foundation funds grants and programs that meet priorities and critical needs across the National Park System in the areas of youth, community outreach, conservation and professional engagement. Among its funding programs is the Active Trails program, which aims to get people out and active on the trails—whether hiking, kayaking, snowshoeing, or volunteering to improve existing trails or build new ones.
- **American Hiking Society:** Through the National Trails Fund grant program, the American Hiking Society provides funding for constructing and improving hiking trails.
- **The Conservation Alliance:** The Conservation Alliance engages businesses to fund and partner with organizations to protect wild places for their habitat and recreation values. Grants are available to nonprofit organizations.
- **National Environmental Education Foundation (NEEF):** NEEF works to make the environment more accessible, relatable, relevant, and connected to people's daily lives. Grants are offered to help organizations engage their local community to improve the environment, increase diversity, and expand their work locally.
- **National Fish and Wildlife Foundation (NFWF):** NFWF provides funding to sustain, restore, and enhance fish, wildlife, and plants and their habitats. Federal, state, and local governments, educational institutions, and non-profits are eligible to apply for NFWF's grants.
- **The Trust for Public Land:** The Trust's mission is to create parks and protect land for people, ensuring health, livable communities for generations to come.

- **The Robert Wood Johnson Foundation:** The Foundation funds a wide array of programs that work to help build a national culture of health.
- **Potomac Appalachian Trail Club (PATC):** PATC volunteers provide trail management and support services, such as trail construction and routine maintenance, and outdoor skill classes and workshops for the public.

Corporate/Private

- **REI:** REI seeks out like-minded partners across business, non-profit, and government sectors in their stewardship efforts. REI provides grants to non-profits to enhance parks, trails, and waterways and fund programs that support outdoor activities.

SPONSORSHIPS

Sponsorships offer the opportunity to maximize funding sources, especially at events. DO-21: Donations and Philanthropic Partnerships outlines the guidance related to sponsorships at NPS events. For NPS events, it states “The NPS may recognize event sponsors as long as corporate names are not used in a way that would imply or suggest NPS endorsement of a product, service, or company, or be construed as commercial solicitation or advertising. . . . The purpose of recognition is simply to acknowledge the sponsor.” For non-NPS events, “Temporary displays directly associated with an event may show sponsors’ names, logos, or name scripts. . . . These displays are restricted to the times and locations.” Both of these approaches would allow donations for new park elements and programming through name recognition in controlled circumstances.

CROWDFUNDING

Relatively new to the fundraising landscape, crowdfunding is a method of raising money through the collective effort of friends, family, customers, and individuals. Typically, a specific item or program, with a specific dollar amount, is identified by an individual or organization for funding. The public then receives the option to contribute to the level each person or organization deems appropriate. The approach can yield inconsistent results, but offers a unique opportunity for the NPS (through its partners) to appeal directly to specific user groups and interests.

USER FEES

User fees offer the ability for the NPS to receive funds directly from the individuals and groups visiting the park and using its facilities. Recreation fees, special park use permit fees, and commercial use authorization fees, could help cover maintenance costs. Administration of these fee programs would comply with appropriate NPS policies and standards, including DO-22: Recreation Fees and DO-53: Special Park Uses, and federal law. The NPS could piggyback on existing NPS fee systems, such as its current facilities reservation system.

Potential Partnerships

The NPS could explore partnerships with a variety of entities to offer educational and recreational programming, restore habitats, provide operations and maintenance services, and/or create community connections beyond the park boundaries. Potential partnerships that could be appropriate for each concept are summarized in **Table 5** and subsequently described in further detail.

The Alice Ferguson Foundation and Bridging the Watershed

The Alice Ferguson Foundation connects people to the natural world, sustainable agricultural practices, and cultural heritage of their local watershed through education, stewardship, and advocacy. The Foundation’s “Bridging the Watershed” program already partners with the NPS and area schools to provide students with meaningful watershed and educational experiences through hands-on, curriculum-based outdoor studies in national parks. Bridging the Watershed could serve as a model for how South Turkey Run Park could be engaged in connecting local school students to the natural world of the park in any of the three concepts.

Friends group

The NPS currently partners with several “Friends of” groups, such as the Friends of Dyke Marsh, Friends of Fort Hunt Park, and Friends of Theodore Roosevelt Island, to provide various programs and services at parks within the park unit. A future “Friends of South Turkey Run Park” volunteer group or non-profit organization could provide

Table 5 Potential Partnerships

Partnership	Adventure + Exploration Concept	Cultivation + Connection Concept	Rejuvenation + Renewal Concept
The Alice Ferguson Foundation	X	X	X
Friends group	X	X	X
Conservation Organizations	X	X	X
Local Schools and Academic Organizations	X	X	X
Local Governments	X	X	X
Adventure Companies	X	-	-
Agricultural Organizations	-	X	-
Local Restaurants	-	X	-
Community Garden Association	-	X	-

an excellent partner for enhancing the park’s interpretive and recreational resources, including constructing and maintaining the park’s expanded trail system.

Conservation Organizations

Organizations or foundations that work to protect, enhance, or restore natural environments could be a useful and appropriate partner for the NPS. Future partners could provide environmental educational programming in the form of classes, seminars, workshops, tours, and youth camps focused on the park’s resources. Programs could utilize the park’s expanded trail system, the outdoor exploration and adventure facility, reforestation nursery, pollinator meadows, reforested fields, event space, and/or flexible event/recreation area/informal play area. Future partners could also provide funding for and/or lead reforestation efforts at the park; establish and maintain pollinator meadows; fund, operate, and maintain the reforestation nursery; and/or manage volunteer and internship programs.

Local Schools and Academic Organizations

The NPS could explore opportunities with local schools, community colleges, and universities to serve as an outdoor classroom that can host a range of environmental tours and class themes. By engaging these organizations in consistent programming, these efforts could grow those educational institutions’ roles as key local stewards of the park. The engagement could further seed opportunities for joint support of school activities, festivals, parks clean-ups, and other park-based activities that support park stewardship while advancing education and community building goals for both partners.

One example of an academic organization that the NPS could partner with is the Virginia Cooperative Extension. The Extension is an educational outreach program of Virginia’s land-grant universities, Virginia Tech and Virginia State University, and a part of the U.S. Department of Agriculture’s National Institute for Food and Agriculture. Extension programs are delivered, in part, through county offices.

The Extension's Fairfax County office provides educational programs related to agriculture and natural resources, and food, nutrition, and health. The interpretive farm and community garden could be an appropriate environment to host some of the local office's programs.

The NPS could also explore joining Virginia's Farm-to-School program to provide harvested foods from the interpretive farm to local school cafeterias. The program could increase student access to healthy and locally-grown foods, support school field trips to the interpretive farm, and provide the basis for agricultural-focused and cooking lessons at local schools.

Local Governments

South Turkey Run Park could act as an outdoor classroom for educational and recreational programming offered by local government parks and recreation departments. Program offerings could include, but are not limited to, outdoor fitness activities, nature walks, bird watching, youth camps, or classes related to the park's resources.

Adventure Companies

Outdoor adventure-based companies could provide a partner for educational and recreational activities at the park. Classes, workshops, and youth camps hosted by these companies could take place at the outdoor exploration and adventure facility, expanded trail system, or the active sports area. Appropriate outdoor educational activities taught by such companies could include, but are not limited to camping skills, map reading, and wilderness first aid. Appropriate alternative active recreation opportunities offered by these companies could include, but are not limited to, rock climbing and slacklining. These companies could also provide an excellent partner in funding, operating, and maintaining an outdoor exploration and adventure facility. Such partnerships may need to go through the NPS concessions process.

Agricultural Organizations

Organizations or foundations that focus on sustainable agriculture or farm programs could provide a useful and appropriate partner for funding, operating, and maintaining the interpretive farm. Additional partnership opportunities could include providing agricultural-based interpretive and educational programming; offering and managing volunteer and internship programs; and/or coordinating distribution of harvested foods or potential farm-to-table partnerships.

Local Restaurants

Agriculture harvested from the interpretive farms could provide local, seasonal, fresh food to local restaurants through a farm-to-table partnership. Farm-to-table programs could support local farm operations, reduce environmental costs associated with shipping food long distances, and provide unique marketing opportunities for local restaurants.

Community Garden Association

A future community garden association could provide a partner for funding, operating, and managing a community garden at the park. The NPS could explore how other community garden associations operate on NPS land in the region, such as the Glover Park Community Garden Association in Rock Creek Park. These gardens could serve as a management model for a future South Turkey Run Park community garden.

Regulatory Requirements

NATIONAL ENVIRONMENTAL POLICY ACT

Individual elements proposed in the concepts could require a Categorical Exclusion (CE) in order to meet NEPA requirements. A CE is applicable to actions that, under normal circumstances, are not considered major federal actions and that have no measurable impacts on the human environment. Examples of concept elements that would meet this definition and would be subject to a CE include the retention and future use of the pavilions.

Other concept elements would require additional NEPA analysis through an Environmental Assessment (EA). Examples of these elements could include the park's expanded trail system, accessibility improvements, and the repurposing of the administrative/maintenance yard area.

Before implementing elements in the concepts, the NPS will work through the NEPA process as required.

NATIONAL HISTORIC PRESERVATION ACT

The implementation of a concept in this plan would consider the potential of adverse effects on historic properties. South Turkey Run Park is located in the George Washington Memorial Parkway, which was listed as a historic district in the NRHP in 1995. The updated 2017 NRHP nomination identifies the wooded land in the "Langley Tract," which includes South Turkey Run Park, as a contributing resource. Additional historic properties would be identified during the NHPA process.

It is anticipated that most of the actions described in the concepts would generally have no adverse effect on historic properties. However, the proposed nature-inspired play area and expanded trail system could alter the wooded landscape. Such changes would follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Most actions described in the concepts would avoid adverse effects on historic properties. In cases where this is not possible, implementation would minimize and mitigate adverse effects. The NPS would coordinate this effort with the Virginia State Historic Preservation Office.



References

Chief of Resource Management, George Washington Memorial Parkway, National Park Service. 2019 (April 29). *Findings of Grounds-Operation Branch, Claude Moore Colonial Farm Assessment Plan*. Letter memorandum to superintendent, George Washington Memorial Parkway. McLean, VA.

County of Fairfax, VA. 2008 (January 25). *Final Middle Potomac Watersheds Management Plan*. Fairfax County, VA: Stormwater Planning Division.

County of Fairfax, VA. 2014 (October). Recommended Bicycle Network. Countywide Bicycle Master Plan. Adopted by Board of Supervisors. Fairfax County, VA. Available: <https://www.fairfaxcounty.gov/transportation/bike/master-plan>. Accessed November 11, 2019.

County of Fairfax, VA. 2018 (July). Countywide Trails Plan. As Adopted by the Fairfax County Board of Supervisors October 28, 2014 Amended through July 1, 2018. Fairfax County, VA. Available: <https://www.fairfaxcounty.gov/planning-development/sites/>

[planning-development/files/assets/documents/maps/trails-plan-map.pdf](https://www.fairfaxcounty.gov/planning-development/files/assets/documents/maps/trails-plan-map.pdf). Accessed November 11, 2019.

Federal Emergency Management Agency (FEMA). 2019. FEMA's National Flood Hazard Layer (NFHL) Viewer. Available: <https://msc.fema.gov/portal/home>. Last updated April 2019. Accessed December 18, 2019.

Interagency Visitor Use Management Council (IVUMC). 2019 (February). *Visitor Capacity Guidebook: Managing the Amounts and Types of Visitor Use to Achieve Desired Conditions*. Lakewood, CO.

National Park Service (NPS). 2005 (November). *George Washington Memorial Parkway Long-Range Interpretative Plan*.

NPS. 2006. *Management Policies 2006*.

NPS. 2014 (December). *Foundation Document George Washington Memorial Parkway*.

NPS. 2015a (January). *George Washington Memorial Parkway Public Use Counting and Reporting Instructions*. Available: <https://irma.nps.gov/STATS/FileDownload/1201>. Accessed January 6, 2020.

NPS. 2015b (January). *Prince William Forest Park Public Use Counting and Reporting Instructions*. Available: <https://irma.nps.gov/STATS/FileDownload/1217>. Accessed January 6, 2020.

NPS. 2015c (June). *Draft Operations Evaluation of Claude Moore Colonial Farm*.

NPS. 2017 (January). *National Capitol Parks East Public Use Counting and Reporting Instructions*. Available: <https://irma.nps.gov/STATS/FileDownload/21420>. Accessed January 6, 2020.

NPS. 2018 (February). *Langley Fork Park and Langley Oaks Park Land Exchange Environmental Assessment*.

NPS. 2019a. Annual Visitation Highlights. Available: <https://www.nps.gov/subjects/socialscience/annual-visitation-highlights.htm>. Last updated March 13, 2019. Accessed January 8, 2020.

NPS. 2019b (January). *Greenbelt Park Public Use Counting and Reporting instructions*. Available: <https://irma.nps.gov/STATS/FileDownload/21669>. Accessed January 6, 2020.

NPS. 2019c (March). *Spring 2019 Invasive Vegetation Survey. Claude Moore Colonial Farm*.

U.S. Fish and Wildlife Service (USFWS). 2017. *Endangered Species: Project Reviews in Virginia*. Available: https://www.fws.gov/northeast/virginiafield/endangered/projectreviews_step2.html. Last updated November 1, 2017. Accessed July 31, 2018.

USFWS. 2018. *Endangered species. Rusty Patched Bumble Bee (Bombus affinis)*. Available: <https://www.fws.gov/midwest/endangered/insects/rpbb/index.html>. Last updated June 20, 2018. Accessed July 31, 2018.

USFWS. 2019. *National Wetlands Inventory*. Available: <https://www.fws.gov/wetlands/data/Mapper.html>. Last updated October 8, 2019. Accessed December 18, 2019.

USFWS. no date (n.d.). *IPaC Information for Planning and Consultation*. Available: <https://ecos.fws.gov/ipac/>. Accessed November 11, 2019.

Walsh, B. M, S. D. Costanzo, W. C. Dennison, J. P. Campbell, M. Lehman, M. Nortrup, B. Steury, and S. Monteleone. 2016. *Natural resource condition assessment for George Washington Memorial Parkway: National Capital Region. Natural Resource Report NPS/GWMP/NRR—2016/1121*. National Park Service, Fort Collins, Colorado.