

# Greenbelt Forest Preserve

## Master Trail Plan

September 11, 2023

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## Chapter One

# INTRODUCTION

The City of Greenbelt Forest Preserve protects more than 260 acres of forested land in six separate tracts (Figure 1). Established in city code by the Greenbelt City Council in 2003, the purpose of the Forest Preserve is to protect the forests in these areas, along with the wildlife and other natural features. A detailed description of each parcel and its history and stewardship goals can be found in the *Forest Preserve Stewardship Guidelines* (City of Greenbelt, 2019). The Forest Preserve is managed by the City of Greenbelt, guided by principles outlined in the Stewardship Guidelines.

When the Forest Preserve was established, the largest parcels in the North and Hamilton Woods were already traversed by a pre-existing, informal network of trails. The trails were not developed based on a master plan, and they have not been maintained by the city. Instead, trails have persisted largely due to public use. Maintenance is performed on an *ad hoc* basis by members of the public, with no coordination by the city. These impromptu trail maintenance activities have included the use of chainsaws to remove large logs, breaking and cutting of brush encroaching the trails, and construction of bridges and walkways over small streams and muddy areas.

When the Forest Preserve was established, the *Forest Preserve Management and Maintenance Guidelines* were developed by a Forest Preserve Task Force appointed by the Greenbelt City Council. In 2019, the Forest Preserve Advisory Board (FPAB) proposed, and the Council adopted an updated version, renamed the “Stewardship Guidelines.” The Guidelines acknowledge that passive recreation in nature is one reason for the existence of the Preserve, and that wise stewardship of the trail system is needed to minimize the impacts of recreation. The Guidelines also recognize that the current trail system is a source of concern. Briefly, trails have proliferated in the Preserve as new trails are established and old trails are rerouted around obstacles. Unregulated, unsanctioned maintenance has been important in maintaining the trails but is inconsistently carried out and in some cases is more extensive than is warranted. The Guidelines do not provide detailed recommendations for trail management. Rather, the Guidelines instruct FPAB to create a separate Master Trail Plan.

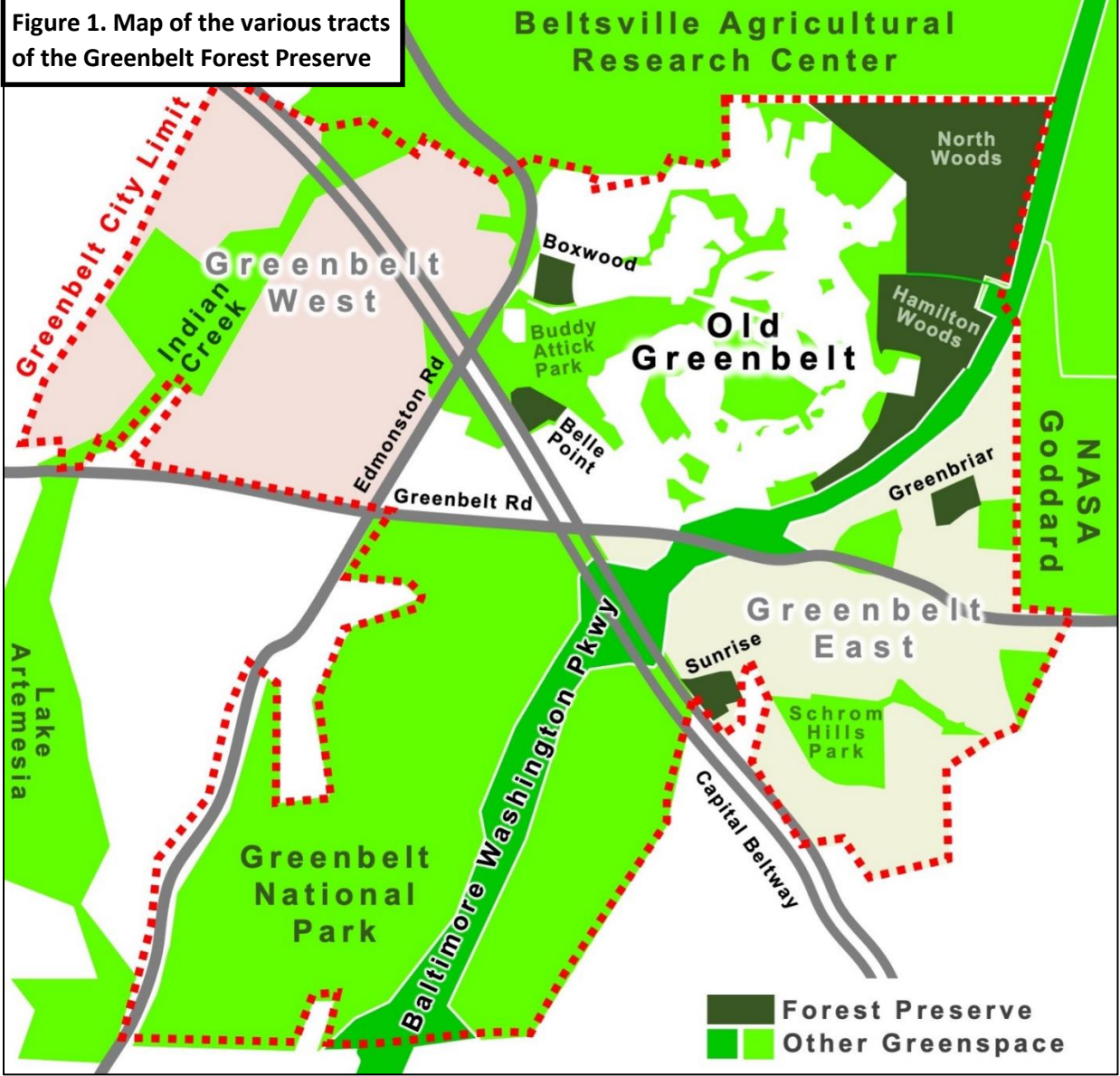
After the Stewardship Guidelines were adopted, the FPAB began work on the Master Trail Plan. After several initial discussions at board meetings, a virtual public scoping meeting was held on September 12, 2020. This meeting was an opportunity for members of the public to state concerns and propose solutions related to trails in the Preserve. During a series of meetings, the FPAB collaboratively produced this Master Trail Plan.

This plan lays out the goals and standards for stewarding and maintaining trails in the Preserve and addressing any issues that arise in the trail system. This plan also designates standards or provides options that the Greenbelt Public Works department should follow to preserve the natural unmanaged appearance of the Preserve. It authorizes the Environmental Coordinator, in coordination with the Public Works Director, to respond to issues that it discovers or issues that are reported by visitors to the Preserve to permit swift action when it would prevent harm to ecosystem health. The standard procedures in this plan are intended to detail the circumstances that warrant intervention, prescribe the techniques that the Environmental Coordinator may use, and limit the amount of disturbance that Public Works may create during maintenance activities.

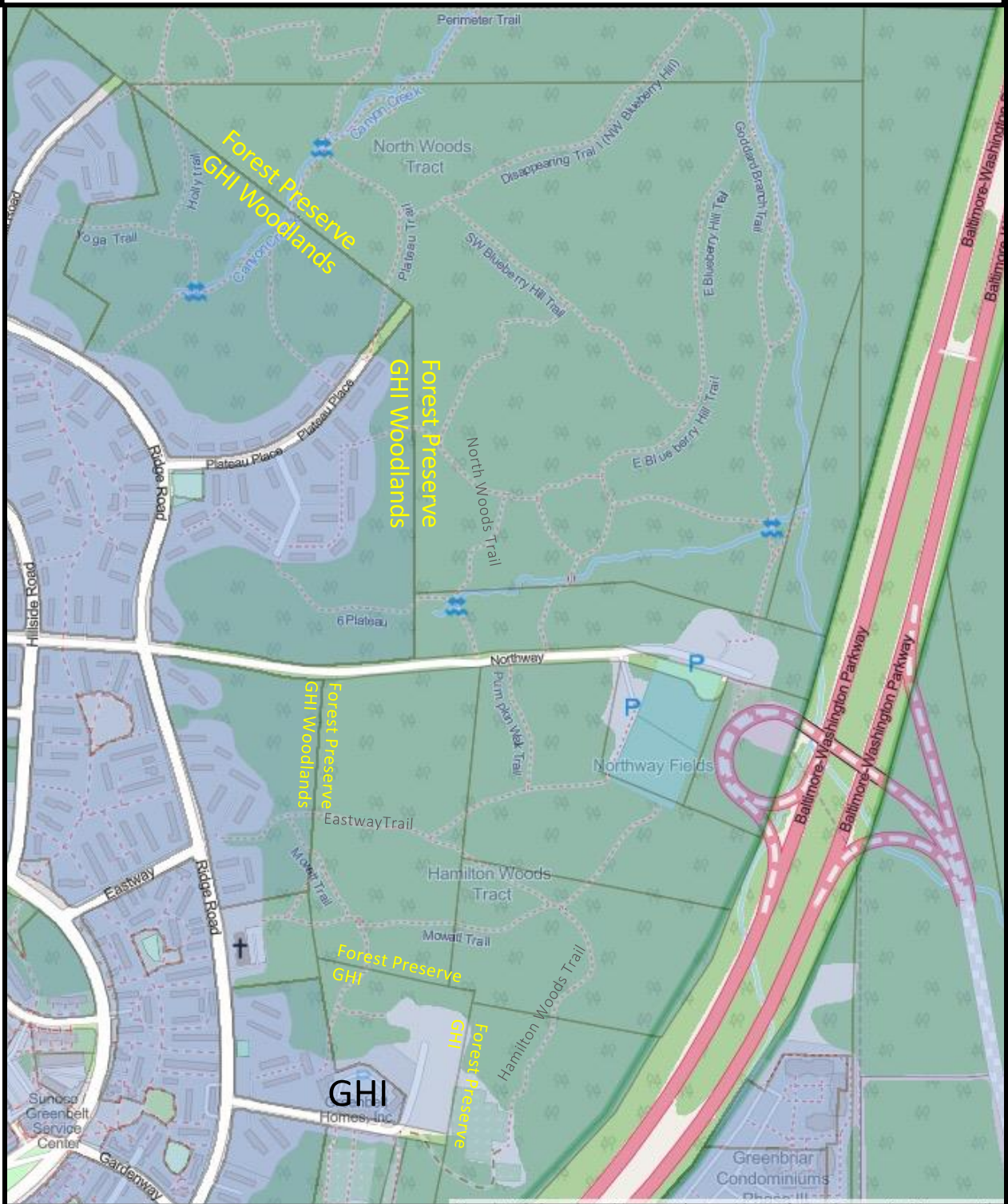
The plan begins with an overview of trail management. The overview discusses issues to consider when managing trails and how the natural environment and visitor experiences help to set standards for different trails. The next section summarizes the current issues related to trails in the Forest Preserve. These include threats to the natural environment, such as trails traversing ecologically sensitive areas, trash along trails and over-zealous vegetation cutting around trails, as well as issues with trail routing, such as erosion on steep slopes, widening of trails in muddy areas and undercut trails along stream sides. Subsequent sections focus on the trail system in each Forest Preserve. These sections describe the natural resource concerns related to the specific trails in that tract and the desired experience for trail users, and detail issues that visitors may encounter, such as the width of trails, muddy areas, stream crossings, and the size of obstacles. Each of these chapters details the standards that Public Works may use to perform maintenance and address specific issues in that tract in accordance with this document. The final section focuses on how the city can make use of volunteers to carry out many of these activities and procedures for reporting problems.

This plan focuses on the major trails, particularly in the North Woods and Hamilton Woods Tracts. Major trails are those trails that are shown in Figure 2, which is a screenshot of Open Street Map. Open Street Map ([www.openstreetmap.org](http://www.openstreetmap.org)) is an online, open source, community-created map that can be updated as the trail system evolves. The trails shown in Figure 2 are the most commonly used trails in the Preserve and shall be the official trail system of the Forest Preserve as described in the Stewardship Guidelines. These trails should be maintained in accordance with this document. Other trails, referred to as minor trails or social trails in this document, are not part of the official trail system. These may be closed, or their use otherwise discouraged. New trails should not be created by staff, volunteers, or general usage, unless a clear plan is presented to and approved by Council.

Figure 1. Map of the various tracts of the Greenbelt Forest Preserve



**Figure 2. Map of trails in the North Woods and Hamilton Woods tracts of the Greenbelt Forest Preserve. This map is from Open Street Map with parcel boundaries added. These trails are the official major trails of these tracts.**



## TRAIL MANAGEMENT OVERVIEW

### Why Have Trails?

Trails provide multiple benefits for the Forest Preserve and those who use trails.

- 1) Trails provide access for people to use and enjoy the Forest Preserve, which is a major rationale for having the Preserve.
- 2) Such enjoyment also creates appreciation of and support for the Preserve, which increases public support and helps keep the area protected.
- 3) In practical terms, trails make it easier to find one's way through the woods, with fewer obstacles and less chance of getting lost.
- 4) Trails help preserve forest habitat by efficiently concentrating impacts, such as soil compaction and trampling vegetation, into a narrow corridor. This can greatly reduce the total impact from hikers and make impacts easier to manage by keeping usage on already impacted areas and away from sensitive locations.

### Why Manage Trails?

It may seem that trails are relatively permanent features that don't require much management except for occasionally trimming encroaching vegetation. However, if trails are left unmanaged, there can be a variety of negative consequences. These problems can be roughly divided into three basic categories.

- 1) Damage to the environment. Unmanaged trails can cause damage to the surrounding environment in a variety of ways. Once a trail has been established, the surface of the trail becomes compacted and unsuitable for vegetation. Unmanaged trails often grow larger as people expand them to avoid obstacles such as logs and puddles, which results in more loss of vegetation. People and their pets can inadvertently damage sensitive habitats, including wetlands such as vernal pools, seeps, and springs. Trails in a pristine forest are disturbances, and they can be the way that invasive species and trash are spread into the forest.
- 2) Damage to the trails themselves. If trails are unmanaged, erosion and overuse can ruin the trail itself. For example, damage to trails is often associated with poor water management. Trails that go directly downhill can turn into erosion gullies that are difficult to traverse and that ultimately pollute streams with sediment. Low muddy spots where water collects on trails are also problematic. When trail users walk through these areas they can deepen and broaden the mud and damage the trail in the process.
- 3) Detraction from the visitor experience. Trails primarily provide an opportunity for visitors to enjoy nature. Some visitors may not be able to use trails if they are blocked by fallen logs or overhanging plants. Those with limited mobility may be particularly affected by fallen trees, difficulty in avoiding brush and thorns, or muddy areas that are hard to traverse and pose risks of falling. Additionally, areas that are trampled, damaged or have litter detract from the experience of nature.

- 4) Illegal maintenance without oversight, guidance, or accountability. Trail maintenance by trail users is officially prohibited, and there have been no established procedures for maintenance by City staff. As a result, substantial unauthorized maintenance is done on a voluntary basis, without any oversight, guidelines, or accountability. Decisions about how much or how little to do are made individually by people engaged in unauthorized maintenance, without clear criteria about appropriate ways to minimize impacts or prevent future problems.
  - a. A notable and clearly visible part of this is the use of saws, including chainsaws, to cut through trees that fall across trails, with no provision for ensuring skills or safe practices by those using chainsaws. The tendency is to re-establish the existing trail, even when a detour rerouting the trail around the fallen tree might be more desirable in terms of ecology or user experience. Cut logs are usually placed beside the trail, with little attention to aesthetics or impacts on drainage from the trail tread.
  - b. Brush has been kept clear from most trails, typically by trail users bending back or breaking off branches, or cutting them with shears, including branches of holly and other trees, and thorny brush such as greenbrier and multiflora rose.
  - c. Branches and boards have been placed in muddy areas, with the intention to make them easier to cross. However, branches and boards can be ineffective, difficult, or dangerous to walk on and sometimes interfere with drainage and thereby worsen the problem.
- 5) Potentially hazardous areas. The current informal trails include locations where the trail runs along the edge of steep (and sometimes undercut) streambanks, or where trail users must climb up and down to cross entrenched streams and ravines, for instance, the slope down from the Observatory and mulch pile. Unauthorized bridges have been placed in multiple locations, without arrangements for inspection, repair, or replacement.
- 6) Ecologically sensitive areas. There have been no specific policies or procedures to prevent or limit development of informal trails that disturb ecologically sensitive areas.
- 7) Invasive species. Trails can provide an entry route for invasive species. Currently there is no process for monitoring or controlling the spread of invasive species along trails, such as stiltgrass or multiflora rose.

Proper trail management can prevent or minimize these negative consequences. Proper trail routing will protect the environment by avoiding wetlands and other sensitive habitats. Erosion and mud can be avoided by methods such as proper trail placement and minimal maintenance of the trails early when issues first arise. Finally, by keeping trails appropriately cleared, there will be less need for users to expand the trail system to avoid obstacles.

## **Goals for trail management**

The goal for stewarding the trail system of the Forest Preserve is to provide Preserve visitors with hiking opportunities in a natural setting, while ensuring the protection of the surrounding environment. Standards for trail maintenance will be determined by considering both the environment and trail use.

In the Forest Preserve, the environment ranges from relatively undisturbed forest interiors in the North Woods Tract to more disturbed forests in other smaller tracts. Undisturbed areas far from the forest edge generally have fewer invasive plant species and are less likely to have trash, which makes protecting these areas particularly important. Some tracts have steep slopes which are susceptible to erosion, while others do not.

There are a variety of reasons why people visit the Preserve. Users vary from single hikers who are looking for a solitary experience in nature to small groups of family and friends. Some are walking or running for exercise. Others may use trails for walking their dogs while enjoying nature. Occasionally, larger groups will visit the Preserve for educational or cultural activities, such as the annual Halloween Pumpkin Walk. Some users may prefer a more challenging, longer hike with downed logs and similar debris to clamber over. Other users may not be able to hike on trails with significant obstructions.

Not every trail will be ideal for every use. Trails with steep slopes or near sensitive environments are poor choices for large group activities. Trails that are more remote are better suited for solitary and more challenging hiking, whereas trails that are near entrances will generally have higher traffic and could be managed to have fewer obstacles. To the extent possible, the trails system should accommodate users with a variety of athletic abilities and interests.

## **Standards**

To achieve this goal, standards have been set for each tract in the Forest Preserve. Tracts and areas that have the most intact natural environments have standards that focus on minimal maintenance and emphasize protection of the environment. Tracts that are more disturbed are better suited to trails that are more maintained and are easier to traverse. Standards take into consideration the layout of the trail system, the degrees to which obstructions are tolerated and the physical standard for the trails.

The layout of the trail system should avoid ecologically sensitive areas that can be inadvertently damaged by hikers. The trail system should not include unnecessary trails, such as unnecessary informal (aka social) trails, parallel trails that connect the same two points, or confusing junctions that could be simplified. Given the extensive nature of the current trail system, it is unlikely that many new trails will be added, but some existing trails may need to be improved, rerouted, or closed.

Trail obstructions are downed logs and branches that are obstacles for hikers using the trail. Leaving obstructions in place is the least intrusive option, and some hikers enjoy overcoming these obstacles. However, if the obstruction is large enough, hikers will create a new trail to go around it, which is damaging to the environment. Keeping trails obstruction-free is more intrusive and requires more effort but a trail with fewer obstructions is accessible to more people. Later sections in this plan specify the size and types of obstructions that will be removed in each tract.

Each tract will have specific physical standards for the trails. These include the width of the trail, how uneven the trail should be, how steep the trails should be and how wide and tall an area should be



cleared of overhanging vegetation. As with obstructions, there are tradeoffs in minimizing impacts, keeping trails open and the amount of work needed for trail maintenance.

## TRAIL PROBLEMS AND MAINTENANCE OPTIONS

This section describes some key problems that are found along the trails in the Preserve and the various options for remediating those problems. These issues fall into several categories: location-based problems, trail creation and blockages, trash, and accessibility. While this section discusses various problems, it should be noted that the existing system of trails in the Forest Preserve seems to be stable and, with some specific exceptions, is in relatively good condition.

The maintenance standards in this document are designed to protect and enhance the natural character of the Forest Preserve and the experience of those using trails. Maintenance standards and activities are based on the *Stewardship Guidelines* for the Greenbelt City Forest Preserve and the ideas presented in other sections of this Plan. Maintenance activities will require a thoughtful and minimalist approach, which will be intended to facilitate appreciation and enjoyment of the Preserve. This includes having trails that are appropriate to the terrain and ecosystems; avoiding or minimizing impacts such as erosion, soil compaction, and damage to vegetation; and enabling safe passage within the Forest Preserve.

This document does not envision or authorize a large amount of modification or additional work on the trail system. Rather, the Plan provides guidelines and standards of care for major trails to keep them available and enjoyable in a sustainable way. For additional information on trail design and maintenance, see the references at the end of this chapter. For a particularly relevant source that discusses physical processes while emphasizing design to fit with and help enjoy nature, see *Natural Surface Trails by Design: Physical and Human Essentials of Sustainable, Enjoyable Trails* by Troy Scott Parker.

### Gullied or Eroded Trails

Trails that go straight down steep or shallow inclines and hills can become gullied and eroded. People walking along trails compact the soil and knock leaves and smaller soil particles to the side; such trails develop a “cupped” shape lower than the surrounding areas. When trails slope downhill along a “fall line,” rainfall runoff accumulates and erodes the trail, with large flows gaining much greater erosive power. Eventually this can turn trails into gullies that are unsightly and unpleasant to walk in, since the runoff also erodes soil and damages vegetation.

*Maintenance Options:* While it is usually impossible to reverse or repair major erosion, various options can prevent or limit erosion and remedy problems with gullied trails.

1. Periodic maintenance can improve drainage from the trail tread by removing accumulated leaves and soil (berm) on the downslope edges and, where feasible, by reshaping the tread to restore the diversion of water off the trail (outslope).
2. New trails or realignment of existing trails can be designed to rise and fall so that the trail tread forms a series of “mini-watersheds” that drain and disperse runoff and prevent concentrated flows.
3. In existing trails, “rolling grade dips” may be installed to move water from the trail. These use a shallow swale and ramp of soil to divert water off the trail into a steeper ditch, swale, or

lower-lying terrain, while keeping the trail easy to walk across. Properly built rolling grade dips can minimize needs for continuing maintenance.

4. Waterbars or steps can be built using wood or stone across trails to divert water and limit erosion. However, waterbars tend to require regular maintenance to remove accumulated debris. Wooden waterbars rot and require periodic reconstruction.
5. Where trails are deeply entrenched, closing and rerouting the trail to one side or the other may be the best solution. In the former trail section, this might involve installing berms, trenches and possible planting to control erosion and promote ecological recovery. Informal shifts in trail location have already occurred, for example, as of 2023, in the uphill sections of the trail connecting the Pumpkin Walk Trail to Eastway Road/44 Court Ridge Road.

### **Wetlands and Persistently Muddy Areas**

Trails that go through low wet areas can become mud pits. People try to avoid muddy areas by going around them, which often results in trampling of vegetation and widening of trails. Where branches or boards are put down to provide a place to walk, these can sometimes further obstruct drainage and worsen drainage problems. Often these trails are also traveling through sensitive habitats such as seeps, bogs, and wetlands.

*Maintenance Options:* It may be appropriate to accept that some portions of trails will be temporarily flooded and unusable for periods of time during and after heavy storms, while still being available most of the time. This is often the case for less popular trails that do not show any signs of widening.

1. Maintenance and minor reshaping of trail tread and drainage into ditches or swales may be sufficient to reduce or eliminate some persistently muddy areas.
2. If the topography permits, trails may be realigned to go around wetlands, such as seeps, springs, and low-lying areas, where water tends to collect.
3. Log cross-sections (“tree cookies”) can be placed like steppingstones to facilitate crossing muddy areas. Narrow board walkways, elevated on cross-pieces, can also be a practical way to enable comfortable passage along a trail through wetlands, while allowing water to stand or flow underneath. Supporting cross-pieces are aligned parallel to the flow, with an elevated trimmed log or board on top at right angles to the flow.
4. In some cases, culverts can provide drainage underneath a trail. Culverts can be designed to be unobtrusive but do require periodic maintenance. Adverse impacts from drying out wetland habitats should be considered and avoided, especially for sensitive habitats such as seeps and vernal pools.

### **Stream Crossings**

The Preserve has a variety of ephemeral and permanent streams and drainage channels, some of which are deeply channelized. Ephemeral streams flow only intermittently after rains. For some trail users, stream crossings may be challenging or make it impossible to use the trail. Bridges can make it easier to cross streams, and several bridges exist at stream crossings. Bridges require construction and may detract from the natural experience. Bridges also require monitoring and repair to keep them safe and sound. Bridge construction risks creating a cycle of further construction to improve, protect, or rebuild bridges that become increasingly large and elaborate.

*Maintenance options:* It may be wiser and more consistent with a natural experience to accept that streams may become temporarily difficult or impossible to cross during and after heavy rains, requiring trail walkers to use alternate routes.

1. Stream crossings can be stabilized by building steps to provide sound footing for going up and down stream banks, including reinforcement using logs to facilitate crossing the stream. This kind of improvement of stream crossings can also help keep users on a single path and so reduce damage to vegetation and erosion of stream banks.
2. Bridges may be constructed at selected locations on major trails, or existing bridges that were built without authorization may be retained, especially in the Hamilton Woods, which is considered an appropriate area to support educational and other organized activities.
3. Retain the “Diving Board Bridge” in the Hamilton Woods. It has become part of local folklore and history, even if it is somewhat discordant with the intended natural character of the Preserve.

### **Steep Stream Banks and Slopes**

Several streams in the Preserve are deeply channelized, often six or more feet below the surrounding land. In some cases, trails run directly adjacent to high stream banks that are undercut. Some streamside trails also go down slopes at a very steep grade, making them difficult and potentially hazardous to use. Contemporary approaches to trail design tend to avoid following directly along the edges of streams, cliffs, or water bodies, and instead usually keep the trails some distance away with occasional short spur trails, where trail users can go and enjoy a view.

*Maintenance options:* Close, reroute, or realign trail.

1. Trails can be closed or rerouted where seriously undercut or too steep to easily traverse.
2. In some cases, a modest realignment of the trail could provide enough setback from the edge of a stream or slope. For example, as of 2023, some of the trails along Goddard Branch already stay six to ten feet away from the edge while still allowing a view of the stream.
3. Where trails are located on steep slopes, construction of new trail at a more gradual grade, possibly with switchbacks, is an option.

### **Sensitive Habitats and Hazardous Areas**

Some ecosystems, such as springs, seeps, vernal pools, and wetlands along streams, may contain rare species and are particularly sensitive to the impact of people walking through them. Other areas in the Preserve contain archeological features and old dumpsites with rusty metal, broken glass, barbed wire, and other hazards. In both such cases trails should avoid sensitive or hazardous areas and minimize usage, particularly by those unaware of these risks and how to avoid them. Increased trail usage from 2020-2023 has created or expanded some trails that approach or go through sensitive habitats.

Major trails can be pro-actively maintained to encourage users to keep to suitable trails. One example (as of 2023) would be to maintain a single major trail along the west side of Goddard Branch and to discourage visitors from going on the east side of the stream. Another example would be to maintain the current major trail leading north from the Hamilton Community Gardens and discourage development of side trails into the adjoining former dumpsite areas.

*Maintenance options:* When trails enter areas with sensitive habitats, there are several options for minimizing harm.

1. Sensitive areas deserving protection can be identified and designated.
2. Trailhead signage can encourage visitors to keep to the trails and discourage entering sensitive areas.
3. Trails leading into or near sensitive areas may be closed, rerouted, or modified to limit or discourage use.

## **Social Trails**

Social trails are minor trails or trail segments that are created by people as they cut corners at trail junctions, find new paths around blockages, move away from eroding stream banks, or simply take a new direction in the forest. Trail junctions become unnecessarily complicated, when “triangular” junctions are created by such shortcuts. Braided trails with multiple parallel paths may occur when a trail is blocked, or a trail travels too close to an eroded stream bank. These issues can amplify impacts on vegetation and wildlife habitat and make navigation more confusing. New trails are also created, when enough people desire to hike to a new location or create access to a new part of the forest. Creation of new social trails can lead to greater impacts on habitat, increased erosion, and other issues, and is therefore discouraged.

*Maintenance options:*

1. Maintenance should be done so it encourages use of the major trails and discourages use of social (minor) trails.
2. Unnecessary or damaging trails should be closed or re-rerouted to reduce users’ impacts on the forest.
3. New trails of all types should be carefully considered and only approved where there are strong reasons for doing so.
4. A degree of redundancy could be tolerated as an aspect of the trail network that developed informally.
5. Where there is no strong reason to have a divided trail, one branch can be kept and the other closed off. Similarly, for a network of braided trails (such as along Goddard Branch) one route could be designated as a primary trail. The other braided trails might be closed off, or more subtly discouraged by pro-active maintenance of the main route.
6. Junctions could be simplified, for example to make a simple “T” or “X” shaped trail intersection, closing off redundant routes. This can also make it easier to notice and remember junctions for safe navigation and return.
7. Trails may be closed using brush and other treatments. Temporary signage may be used confirm the change and point users in the correct direction. Activities to facilitate environmental restoration could include digging to de-compact soil, creating small trenches and berms to promote rainfall infiltration and reduce erosion, and transplanting vegetation, such as saplings or shrubs.

## **Fallen Trees and Other Trail Blockages**

Fallen trees are a natural occurrence and an important part of forest ecosystems. However, such “blowdowns” may block trails and can be unstable and hazardous to those trying to go over, under, or

through them. Where people detour around blowdowns this can unnecessarily compact soils and trample vegetation. If sawn logs from fallen trees are not appropriately arranged, they can appear ugly and unnatural and may obstruct drainage.

*Maintenance options:*

1. Fallen trees should be promptly reported and assessed, so the situation can be addressed before people create informal detours. The assessment should consider whether rerouting the trail might be easier or more desirable, including making the trail more interesting and better fitted to the landscape and scenery.
2. If rerouting seems the best choice, then a new route should be temporarily marked with flagging tape and perhaps temporary signage. Where necessary, vegetation might be cleared along the new trail route. On sloping land, the new trail tread may need to be shaped to make it easier and safer to walk and to facilitate drainage. Current approaches to trail design tend to favor building trails along sloping areas, to better manage drainage, so this could be a consideration in realigning trails around fallen trees.
3. If reopening the existing trail alignment seems like the best choice, then branches and tree trunks obstructing the trail should be cleared away within a specified clearance area. Trees may be left in place where they are relatively easy to step across, such as tree trunks or branches up to a specified height above the trail, e.g., 12 inches. In many cases manual tools such as loppers and handsaws are sufficient to make the trail passable again. Chainsaws may need to be used (by qualified operators) for larger tree trunks and branches or blowdowns of multiple trees.
4. The presence of dead trees and branches above and beside trails is normal for a natural forest and accords with the purposes and principles for managing the Forest Preserve. Trailhead signage might warn hikers of the risks of falling limbs and the danger of using trails during storms or high winds. In exceptional cases, pro-active steps might be taken to remove dangling limbs or trees precariously overhanging trails, if these seem to pose a high risk.

### **Branches and Brush in Trails**

The major trails in the Preserve appear to have been kept open through informal maintenance such as pruning, bending back, or breaking off vegetation in the trails, as well as stepping on plants growing in the trail. Trees, shrubs, and other vegetation that grow into the trail may make hiking difficult, including problems with thorns, poison ivy, and exposure to ticks. Some degree of encounter with such hazards may be considered a part of the natural experience of walking in the Preserve.

*Maintenance options:* Established major trails, such as those shown on Open Street Map, generally show a trail tread 12-24 inches wide and an area cleared of vegetation 3-4 feet wide at waist to shoulder height. Maintenance of trail width should remain consistent with how they have developed with usage over time.

1. Occasional partial obstruction of trails by vegetation may be treated as a normal condition for trails.
2. For major trails, a “clearance area” could be specified for periodic removal of brush. For example, this could be specified as a roughly oval area about 3 feet wide and 6 1/2 feet high from a trail tread 18 inches wide. For minor trails, a narrower clearance area and trail tread could be specified, for example 2 foot wide and 12-inch trail tread.

3. Invasive species, such as multiflora rose, Japanese honeysuckle, wisteria, and stiltgrass, may be pro-actively removed in and alongside trails, to keep the trail open for use, control spread of invasive species, and to provide more opportunity for native plants to grow and to be enjoyed along trails.
4. Poison ivy may be removed if it is growing where those walking along the trail are likely to touch the plant. The presence of poison ivy alone does not necessarily trigger a need to clear vegetation.
5. Before or during activities to maintain the trail's width, native species that are rare or otherwise deserve special protection should be identified and marked, and those activities must avoid excessive impact to the rare plants.

### **Trash and Litter**

Litter appears currently not to be a major problem along most trails, perhaps due to good habits by most trail users and volunteer collection of litter by individuals. Some tracts do have issues with litter. The Sunrise Tract has immense amounts of trash in the forest and on the forest edges, and the Greenbriar Tract often has litter along the trails. Additionally, there are some cases of manufactured materials, such as rugs and old metal, in or along trails. In some locations unauthorized campsites have been set up in the Preserve, leaving behind boards, roofing, mattresses, and other materials.

#### *Maintenance options:*

1. Trailhead signage can encourage "Leave no trace" practices of not littering and avoiding impacts on the Preserve.
2. Specific sites could be identified where organized clean-up efforts are needed, for example through volunteer workdays.

### **Rerouting Trails**

Public Works may reroute short sections of trail to address problems enumerated above. Proposals for new trail segments longer than 100 feet will be submitted to Council through FPAB for review and approval.

### **Sources for Information on Trail Design and Maintenance**

1. *Forest Preserve Stewardship Guidelines*. City of Greenbelt, Maryland, 2019. <https://www.greenbeltmd.gov/home/showpublisheddocument/16685/637194378187630000>. Hereafter referred to as SG.
2. *Natural Surface Trails by Design: Physical and Human Design Essentials of Sustainable, Enjoyable Trails*. By Troy Scott Parker. Natureshape. 2004. Also see <http://www.natureshape.com/index.html>
3. *Trail Fundamentals and Trail Management Objectives*. USDA Forest Service. September 2016. <https://www.fs.usda.gov/managing-land/trails/trail-management-tools/trail-fundamentals>
4. *Trail Construction and Maintenance Notebook 2007 Edition*. Woody Hesselbarth, Brian Vachowski, and Mary Ann Davies. USDA Forest Service. <https://www.fs.fed.us/t-d/pubs/htmlpubs/htm07232806/toc.htm>
5. *Drainage Design & Drain Dips*. PCTA Trail Skills College Curriculum Instructor Planning Guide. Course 201. [https://www.pcta.org/wp-content/uploads/2012/11/201\\_Drainage\\_Design\\_\\_Drain\\_Dips\\_v0311.pdf?x20165](https://www.pcta.org/wp-content/uploads/2012/11/201_Drainage_Design__Drain_Dips_v0311.pdf?x20165)

6. *Lightly on the Land: The SCA Trail Building and Maintenance Manual*. By Robert C. Birkby. The Student Conservation Association. Mountaineers Books. 2005.
7. *Appalachian Trail Design, Construction, and Maintenance*. By William Birchard, Jr., and Robert Proudman. Appalachian Trail Conference. 2000.



## NORTH WOODS TRACT

### General Considerations

The Forest Preserve *Stewardship Guidelines* describe the trails in the North Woods Tract as primitive and stipulate that they receive minimum maintenance (SG, pp. 13-14 and ii).

Trail maintenance in the North Woods Tract shall be of low intensity to preserve the distinctive character of hiking there. The demanding and primitive nature of this trail network creates a different visitor experience than the easy strolls that may be available along the trails in Greenbelt Park, Schrom Hills or Buddy Attick Park. In the North Woods, a visitor must use wayfinding skills at trail junctions or along indistinct sections of trail because the *Stewardship Guidelines* (pg. 14) stipulates that trails remain unmarked. A degree of physical interaction with nature is required, such as brushing aside branches, stepping over logs, and watching for mud or an exposed root.

The goal for trail maintenance in the North Woods Tract is to preserve the primitive nature of the trails, while also identifying and responding to situations where trail maintenance is warranted to avoid or reverse ecological damage. General policies include the following:

1. Refrain from trail-maintenance activity or creating a new trail unless it is necessary to maintain ecosystem health (SG, pg. 14).
2. When the severity of a trail problem or the best solution is unclear at a particular location, monitor that location rather than act prematurely.
3. The Forest Preserve is to be maintained so that it appears to be a "wild place free from structures, refuse, or other man-made marks" (SG, pg. 3). This guidance means that a trail-maintenance solution should blend into the surroundings rather than call attention to itself as being a human-made alteration to the forest. In the North Woods Tract, trails shall have no blazes or other permanent markings (SG, pg. 14). Avoid permanent signage in the interior of the North Woods Tract (SG, pg. 15).
4. Trail maintenance shall alter biota, soil, water flow, or visitor experience to the minimum extent possible.
5. While bridges are generally unnecessary at stream crossings in the North Woods, there may be locations where a bridge would facilitate management goals and avoid ecosystem harm. A bridge may be necessary if visitors are frequently creating impromptu bridges. As per the *Greenbelt City Code*, bridges are permitted when necessary (12-156c, d).
6. Trail maintenance should avoid unnecessary pruning (12-156m) or otherwise harming plants (12-157a).
7. Living trees larger than 1" diameter at 4.5' off the ground shall not be cut to create a new trail segment. New trail segments should be designed to avoid cutting small trees and shrubs when possible.
8. Trail maintenance should use material found along the trail. Do not import material such as sand, gravel, boulders, fill dirt, wood chips, straw, or lumber into the Preserve. Woody material from whole logs is acceptable for muddy areas as described in the Mud section below. Some imported material could introduce pathogens or invasive species (prohibited by City Code 12-

156h). Some imported material would clash visually with the forest's rocks, soil, and ground cover (SG, pg. 3).

9. Trail maintenance in the North Woods is intended to be of a limited intensity that can be accomplished primarily with hand-held tools and without construction machinery or motorized vehicles. For example, avoid regrading of the soil unless a plan is approved by Council for a specific project (*City Code*, 12-156b, j). Under no circumstances should trail maintenance change the course of a body of water, except for minor adjustments for trail drainage, such as trail-tread maintenance using manual tools (*City Code* 12-156e).

The Environmental Coordinator shall apply these general policies to the specific trail conditions listed below. These policies only apply to major trails. Social trails should be addressed in accordance with Chapter 3.

### **Narrow or Indistinct Trail**

The trails in the North Woods Tract are narrow, generally consisting of a 12-to-18-inch-wide tread with no shoulder. Narrow trails are desirable because they add to the primitive feel of the trail network, and they reduce the amount of undergrowth destroyed.

A "tread" is the vegetation-free ground that is walked upon. A "shoulder" is an area adjacent to the tread where any ground cover is regularly cut close to the ground. A shoulder may slope away from the tread and be covered with fallen leaves and branches.

Maintenance activities are not authorized if the trail simply becomes seasonally indistinct in places, such as in autumn when trees lose their leaves. Soon after leaf-fall, the habitual use by visitors familiar with the trail will make it more visible once again.

Some trails have become indistinct because of the rapid growth of ground-covering invasive species, such as Japanese stiltgrass. Possible responses include allowing such trails to be abandoned or take action to keep them open. Consideration should be given to whether cutting back invasives sufficiently to reopen a trail would create a bare spot that would give even more aggressive invasives a chance to take hold.

In the North Woods Tract, permanent markings, such as blazes painted on tree, shall not be used to address the problem of an indistinct trail (SG, pg. 14). Temporary trail markings, such as brightly colored biodegradable flagging tape, may be attached to trees for a limited time to help reestablish a desirable section of trail that has grown faint.

### **Undergrowth**

One characteristic that helps establish the primitive feel of the trails in the North Woods Tract is that undergrowth is not cleared near the trail. In many portions of the forest, trees, bushes, and other undergrowth grow immediately adjacent to the narrow trail tread. The trail tread should generally be no wider than 18 inches, and in ecologically sensitive areas, the trail tread should be limited to a 12-inch width. Occasional stray branches will grow across the trail.

Ticks live on the forest floor and on forest plants. In literature about the Forest Preserve, visitors shall be encouraged to take precautions against ticks, such as wearing proper clothing, wearing repellent, and checking for ticks after hiking.

A branch that grows across a trail may be cut if any of the following are true:

- The branch has grown too rigid to brush aside and is less than 6 1/2 feet from the ground,
- The plant is poison ivy,
- The plant is an invasive species,
- The branch has thorns, or
- There is a large mass of branches in one place that make the trail difficult to follow.

The ecological justification for such pruning is that, in its absence, visitors might excessively damage vegetation or make new trails to avoid these obstacles.

## **Mud**

Intervention is unnecessary at locations along the trail where mud occurs occasionally after rain.

Intervention may be needed, if a location is persistently muddy, such as where the trail passes near a seep or crosses a minor stream. The ecological justification for intervention would be that, without remediation, a large and persistent mud patch along a trail would lead visitors to trample and damage undergrowth nearby, as they try to avoid the mud.

Monitor muddy locations for the following signs that the problem is becoming severe enough to justify action: shoeprints visible in mud, hikers placing logs across the mud patch, or the trail becoming significantly wider. The following solutions are permitted:

1. Use soil from the Forest Preserve to raise the trail bed a few inches above the surrounding ground level so that water runs off the trail rather than pooling on it. To restore drainage, it may be helpful to remove built-up leaves or dirt along the edge of the trail tread.
2. Reshape the trail bed for water to drain away from the trail, or make a shallow swale, an earthen "rolling grade dip" or, if necessary, a waterbar with wood or rocks.
3. Place a large log or logs across the mud patch for hikers to walk over with the log or logs oriented parallel to the trail. The log may be split or have its top surface roughened. If necessary, raise the log(s) a few inches above ground level to allow water to flow under them. Maintain a natural, rustic appearance. Avoid constructing bridges with sawn planks or manufactured fasteners.
4. Using dead wood, construct a "corduroy road" with short logs oriented perpendicular to the trail and spaced wide enough apart that water can continue flowing across the trail. To reduce its visual impact, keep such a road narrow, sufficient only for one-way traffic.
5. Use log disks (tree cookies) as stepping "stones" where one or two would be enough to cross a wet spot.
6. Relocate a short section of the trail away from the mud to a location where a new mud patch is unlikely to form. Avoid this solution in locations where the undergrowth has especially high ecological value or if it would be likely to end up creating two low-quality trails instead of one high-quality trail.

When considering options to solve a mud problem, do not take any actions that would lead to significant changes in the natural course of any body of water, an action the *City Code* 12-156e prohibits. Comply

with the Stewardship Guidelines to maintain the appearance of a "wild place... free of man-made marks" (SG, pg. 3) by avoiding actions that would be visible from a distance, standing out from the forest background.

## **Erosion**

Monitor locations that are experiencing erosion for conditions that suggest that erosion is significant enough to require trail-maintenance. Check if erosion will turn this section of trail into an intermittent stream or expose roots above ground level making them a significant tripping hazard. These conditions may lead visitors to trample a wide swath of undergrowth to avoid that section of trail. A natural opportunity for creating a new section of trail occurs when a tree falls across the eroded section of trail, as discussed below in the section on fallen trees.

If erosion is significantly altering the trail, The Environmental Coordinator may

1. Reshape the trail bed using soil from nearby,
2. Make a shallow swale or an earthen "rolling grade dip" or,
3. Construct water bars with wood or rocks.

If it is not possible to redirect water away from the trail to avoid a severe erosion problem, Public Works may propose creating a new section of trail and closing the eroded section. However, making a new trail section may be counterproductive in easily eroded soils because the new route may soon erode just as deeply as the original route. New trail segments should conform with best practices for trail creation to prevent erosion. Proposals for new trail segments longer than 100' will be submitted through FPAB to Council for approval.

## **Drop-offs and Steep Slopes**

Existing trails next to a steep drop-off should be rerouted away from the drop-off. A near vertical drop of 3 or more feet may count as steep, such as occurs along Canyon Creek and Goddard Branch in 2023. Rerouting the trail 4'- 6' feet away from the top of the drop-off will significantly reduce the chance that an unobservant hiker would fall, while avoiding significant change to the view along the trail. Such a minor change would count as a "modest realignment" (as cited in Chapter 3, p. 12). In contrast, the public would be less likely to accept a major change in a trail's location, for example, one that lacked the pleasant view of a stream available along the original trail alignment. The Environmental Coordinator may reroute short sections of trail to avoid steep drop offs. Proposals for new trail segments longer than 100' will be submitted through FPAB to Council for approval.

Trail-maintenance action may also be advisable in some places in the North Woods Tract, where a short section of trail goes up a slope that is steep enough that hands must be used to avoid slipping. In a few places, a trail climbs the side of an erosion gully with or without a stream along its bottom. To assess whether trail-maintenance action is needed, examine the trail for widening, which would indicate people were trying multiple alternatives to avoid having difficulty with the steep section. Trail widening is evidence of ecological damage.

If action is needed, the least intense solution is to bypass the steep section by reopening an earlier trail alignment. A more intense solution would be to create a new trail segment that traverses the steep slope using a switchback. The least desirable solution is to build steps up the steep trail section because the Stewardship Guidelines require the appearance of a "wild place... free of man-made marks" (SG, p.

3). If steps must be built, use material from the Preserve, not lumber, rocks, fasteners, or other material brought in from outside the Preserve. Endeavor to maintain a natural, rustic appearance.

### **Stream Crossing**

A bridge or other structure is not needed at most or all stream crossings in the North Woods Tract. Excluding Goddard Branch, the streams carry at most a few inches of water and are no more than a few feet wide. Leave a stream crossing unaltered, if the stream provides firm footing and is less than an inch deep.

In the North Woods, a trail that crosses a stream that flows along the bottom of a 3-to-6-foot-deep erosion gully may also be better left without bridge or other structure. Such structures would be needed, only if there were evidence that visitors have trouble climbing up and down the sides of the gully. Evidence that this were the case would be that the trail had widened considerably, as people try different spots to scramble up the bank. If a troublesome crossing is to remain in use, then the crossing should be made easier to walk and one route may be marked distinctly with natural material. For a brief time, brightly colored biodegradable flagging tape may be used to highlight the location of the enhanced stream crossing, if it might otherwise be missed by walkers. No permanent markings are to be placed in the North Woods.

If some sort of aid is needed at a stream crossing, seek a solution that avoids bringing in material from outside of the Forest Preserve. For example, a section of tree trunk may be cut from a tree that fell in the Preserve. The top of the log may be flattened to make it easier to walk across.

There are several reasons to dismantle a bridge, whether it was built by the City or unauthorized volunteers. The Environmental Coordinator or FPAB may propose the removal of a bridge, if it does not contribute to ecological goals, if a nearby trail crosses the same stream without needing a bridge, if the bridge is unsafe, or if the bridge is built with material from outside of the Preserve.

### **Fallen Trees**

Trees across the trails are common on the primitive trail system in the North Woods. To maintain this aspect of the Preserve, intervention is unnecessary if a tree falls across a trail and the tree trunk can be stepped over, ducked under, or walked around. If the top of the trunk is only 18 inches above ground, it can be stepped over. If the bottom of the trunk is at least 5 feet above ground, it can be ducked under. If the tree's base is within 5 feet of the trail, then the tree can be walked around.

If the tree fell in such a way that the trunk or branches are more than 18" from the ground and less than 5' from the ground, The Environmental Coordinator may cut an opening that is sufficiently wide to make the trail passable, leaving the rest of the tree where it fell. This response is the best option if the original trail alignment is desirable, and the undergrowth is sensitive at this location. Alternatively, staff may leave the fallen tree alone and create or allow a new trail section that detours around it. This action is the best option if the original trail location or orientation was undesirable. In this case, excessive trampling of vegetation and compaction of soil could be reduced by promptly assessing a fallen tree and temporarily marking the trail to provide clear indication whether the goal is to reopen the original trail or cut a bypass. If the desirable option is to construct a new route around the fallen tree, this decision may be indicated with temporary markings or placing dead branches along the new alignment. When the desirable option is to reopen the original trail, this may be achieved in some cases by cutting off

some of the fallen tree's branches rather than completely removing the trunk and branches from across the trail.

In the case of trails along the fence between the Forest Preserve and BARC in 2023, fallen trees provide an opportunity to gradually create a more meandering natural-feeling trail. For this reason, preference should be given to rerouting the trail rather than restoring the alignment directly along the fence line. The parcel line between the Preserve and USDA's property is several feet south of that fence, so removing trees from the fence is not legally allowable.

Lastly, one can simply monitor the situation at a fallen tree. The best option may be to refrain from immediate trail-maintenance action, if the trail is still passable and there is no risk of major ecological harm from either a new trail forming or the original trail continuing to be used.

## HAMILTON WOODS TRACT

### General Considerations

The Forest Preserve *Stewardship Guidelines* set several goals for trails in the Hamilton Tract (SG, pp. 14-15). Trail maintenance should support informal experiential and educational events and activities, such as the Pumpkin Walk, and allow temporary, non-destructive marking of trails for these events.

The trails should maintain the existing access from the James Wolf Athletic Fields, Northway Road and the GHI woodlands. Trails between Gardenway and McDonald field should be minimally maintained as they currently receive relatively little use.

The portion of this tract between Hamilton Place and Gardenway, known as Area D, is noted in the Guidelines as the most suitable of all Preserve tracts for planning and managing a hiking area accessible to those using chairs, walkers, or other mobility devices. Developing interpretive trails that are easy to use and barrier-free will make a portion of the Forest Preserve available to a larger segment of the public without threatening or compromising the character and quality of the Preserve as a whole.

Finally, the area just south of the James Wolf Athletic Fields is the site of a former landfill. The presence of landfill materials in areas near existing trails may present a hazard to the public. Minor trails should especially be discouraged in this area.

The Environmental Coordinator shall apply these general policies to the specific trail conditions listed below. These policies only apply to major trails. Social trails should be addressed in accordance with Chapter 3.

### Undergrowth

Trails in Hamilton tract are intended to be easier to traverse than those of North Woods Tract, but the maintenance of these trails should still have as little impact on the vegetation and other natural features as possible.

Underbrush may be cleared to maintain 30 inches of clearance along the trails. Branches crossing the trails less than seven feet off the ground should be trimmed to achieve the 30-inch clearance standard. This is particularly important for plants that pose some hazard, such as thorns or poison ivy. Branches should be trimmed according to standard pruning good practices, not just cut off at the 30" width. This may result in some branches being cut wider than the 30" standard. Underbrush may not be disturbed beyond the 30 inch-width and 7-foot height standard laid out in this section.

Visitors are encouraged to take precautions against ticks such as wearing proper clothing, wearing repellent, and checking for ticks after hiking.

### Mud

The standards for managing muddy areas in the Hamilton Woods are the same as those in the North Woods. Refer to Chapter 4, p. 19.

## **Erosion**

There are fewer trails on steep slopes that are prone to erosion in the Hamilton Tract than there are in the North Woods Tract. Trails that could be vulnerable to erosion in 2023 are generally found running from Ridge Road into the Preserve between Northway and Hamilton Tract. These trails generally start on private property outside of the Hamilton Tract, so coordination with those landowners will be needed to address problems.

The trails should be monitored to see if conditions indicate that erosion is a problem. This can be indicated by exposed roots above ground level, or a tendency for certain stretches of the trail to act as intermittent streams after rain. A trail that widens on a steep slope should also be cause for concern.

The standards for managing erosion in the Hamilton Woods are the same as in the North Woods except for possible construction of log steps or a series of water bars that function like steps for deeply entrenched trail sections. Any steps and water bars must be built using materials from the Preserve. Refer Chapter to 4, p. 20.

## **Stream Crossing**

In several places, trails in the Hamilton Track in 2023 cross deeply incised gullies that appear to be actively eroding. These locations currently have unauthorized wooden bridges and walkways. To stabilize these stream channels, steps should be taken to address the storm flows that cause erosion. The source of these issues is likely runoff from impervious surfaces outside of the Hamilton Tract, so any permanent solution will require the cooperation of neighboring landowners.

The existing bridges should be periodically inspected to ensure that they are in good condition and that the stream banks have not eroded to the point where the bridges are no longer viable. Should these bridges become unusable, then The Environmental Coordinator or FPAB may submit a proposal to replace the bridge or to remove the bridge and reroute the trail.

## **Fallen Trees**

In the Hamilton Woods, trails should be easier to traverse than in the North Woods. No intervention is necessary if a tree falls across a trail and the tree trunk can be easily stepped over, ducked under, or walked around. If the top of the trunk is only 12 inches above ground, it can be stepped over. If the bottom of the trunk is at least 6 feet above ground, it can be ducked under. If the tree's base is within 5 feet of the trail, then the tree can be walked around.

If the tree fell in such a way that the trunk or branches are more than 12" from the ground and less than 6' from the ground, The Environmental Coordinator may cut an opening that is sufficiently wide to make the trail passable, leaving the rest of the tree where it fell. This response is the best option if the original trail alignment is desirable, and the undergrowth is sensitive at this location. Alternatively, staff may reroute the trail as described in Chapter 4 on p. 21 under the heading Fallen Trees.

## **Pumpkin Walk Trail**

Every year around Halloween, several hundred visitors walk this trail south from Northway and then east to Wolfe Fields after dark to see the lit jack-o-lanterns on display. The large number of visitors and low lighting pose a risk for injuries to occur and for unnecessary damage to the trail and surrounding vegetation.



This trail should be maintained to be very easy to walk, even in the dark. Branches and other vegetation should be cleared so that the trail has a width of 30 inches. When a tree falls across the trail, a section should be cut through it, if it could conceivably be a tripping hazard in the dark. Some sections of the trail are often muddy and should be addressed as described in Chapter 4. These maintenance activities should occur at least once a year and prior to the Pumpkin Walk, which is typically held on the last Saturday of October.

Finally, as the Pumpkin Walk Trail already hosts many visitors, if any other large activity were to take place in the Preserve, it should be directed to this trail to minimize impacts to the other trails.

### **Barrier Free Trail**

The trails in the Forest Preserve generally have obstacles and/or steep slopes that can make hiking difficult for some potential users. Over the years, there has been some consideration of creating a trail in the Preserve in a relatively flat area and keeping the trail free from obstacles such as fallen logs and branches. This trail would then be accessible to visitors who cannot negotiate trails in other parts of the Preserve.

The portion of this tract between Hamilton Place and Gardenway, known as Area D, is the most suitable area for such a trail. This area is relatively flat and currently receives relatively few visitors. Although there is currently a faint trail through this area, it is not as well established as trails in other parts of the Preserve. Should a barrier free trail be installed, there is no need to follow the route of the current trail, rather it should be routed in such a way as to enhance accessibility. Any proposal to create such a trail shall be routed to City Council through FPAB for review and approval.

## **BOXWOOD, BELLE POINT, SUNRISE, AND GREENBRIAR TRACTS**

### **Boxwood Tract**

The Boxwood tract is located at the corner of Ridge and Crescent. The forest surrounds a playground, a small basketball court and two small grassy fields that are not part of the Preserve. The interior of the forest is largely trash free and appears to have very few visitors.

There are currently no trails in the tract other than a short and faint trail leading from the basketball court to the nearest field. There is currently no urgent need for a trail in this tract, but neither is there a reason to prohibit trails. If there is a future need or desire for trails in this tract, they should be considered by the city as a potentially beneficial addition. Any proposal to create such a trail shall be routed to City Council through FPAB for review and approval.

### **Belle Point Tract**

The Belle Point tract is located on the southwest side of Buddy Attick Park. The most prominent and heavily used trail is the Washington Suburban Sanitary Commission (WSSC) right-of-way that leads from the lake to the Charlestown North apartment complex. An electric right-of-way is found on the west side of the tract along the beltway off-ramp. Both rights-of-way are managed by their respective utility companies.

The only other trail in the tract leads from the spillway at Greenbelt Lake south-west towards the Beltway. This once-popular trail led to Indian Springs, but a section of the trail was eliminated by the construction of the Beltway. Although the trail no longer leads anywhere, it is still easily visible. The trail is wide with compacted soils and appears to have had gravel added in some places in the past.

Little maintenance is required for the existing trail. If the trail is blocked by fallen dead trees and visitors are creating new trails to circumvent them, then a path may be cleared through the trees using the standards detailed in the Fallen Trees section of Chapter 5 on p. 24.

There have not been any requests for additional trails in this tract. However, a loop could be created by connecting the upper end of the WSSC right-of-way to the end of the Indian Springs trail. This is not currently a priority but should be considered if there is public interest in expanding trails in this tract.

### **Sunrise Tract**

The Sunrise tract is located between the Beltway, the Hanover Apartments, Greenbelt dog park, and the Greenway Center. A stream runs along its southeastern border. The tract is sloped, with the lowest elevations along the stream and the highest elevations adjacent to the beltway.

This tract currently has no trails. The tract has considerable amounts of litter, indicating that there is some level of public use. The City should consider developing a small loop trail in this tract. The loop would ideally have one entrance close to the dog park and potentially a second entrance close to the Hanover Apartments. The loop would run from the dog park south along the stream until the stream exits the tract. Then the trail would double back north to the dog park along a parallel route in the

interior of the forest, possibly along the hillside with the views that would create. The trail should not run too close to the Beltway as the traffic noise is quite loud and would be unpleasant. Any proposal to create such a trail shall be routed to City Council through FPAB for review and approval.

### Greenbriar

The 7-acre Greenbriar tract is located at the intersection of Hanover Parkway and Mandan Road, next to Eleanor Roosevelt High School. Unlike the other small tracts in this section, the Greenbriar Tract has a well-developed trail system that will require monitoring and occasional management. (See Figure 3.)

The tract is roughly divided in half by a heavily incised stream which runs from south to north. The stream originates from one water conduit and drains into another. Close to the south side of the tract, a bridge and culvert allows visitors to cross the stream. This formal stream crossing may require ongoing maintenance. On either side of the bridge the trails form a loop.



**Figure 3. Map of trails in the Greenbriar tract of the Greenbelt Forest Preserve. These trails are the official major trails of this tract.**

With two exceptions, the trails in this tract are generally narrow but persistent, and in places there is only a narrow opening in the vegetation. While there are some signs of chainsaw use in the tract, this is much less common than in the North or Hamilton Woods. In 2023 these trails have been blocked by numerous downed trees. Some of these trees can be climbed over, but in other places the trails are completely blocked and require visitors to detour off-trail. Blocked trails should and may be cleared by sawing a path through the fallen trees using the standards detailed in the Fallen Trees section of Chapter 5 on p. 24. Any downed trees or branches that are taller than one foot should be removed from the trails. The removed wood should be scattered in nearby woods, but not be placed in a way that would channel water onto the trail.

There are two trails that receive heavier use. The first is a pair of parallel, short trails originating at the Greenbriar Park sign along Hanover Parkway and ending at the small clearing in the northeast corner of the tract. The second heavily used trail originates along Hanover Parkway to the west of the stream and leads south and then west to Eleanor Roosevelt High School. This trail is wider than other trails in the tract and appears to be used by students walking to school. This trail should be managed so that downed trees do not obstruct the trail, which will prevent users from creating new detour trails. Trees and branches on this trail should be cleared from ground level up to 6' from the ground. The Environmental Coordinator may cut an opening that is sufficiently wide to make the trail passable, leaving the rest of the tree where it fell. There is often trash present along this trail, mainly at the end closest to the high school, so occasional clean-up days should be organized.

There is only one trail with additional ecological concerns that could warrant additional maintenance. The trail heading west from the north entrance dips into a persistent low muddy area. To prevent visitors from widening the trail while attempting to avoid the mud, The Environmental Coordinator may use the methods listed in Chapter 4 on p. 19.

## **TRAIL ISSUE REPORTING AND IMPLEMENTATION**

### **Trail Issue Reporting**

An online form (Appendix A) will be maintained by City Staff for the public to report trail issues in the Forest Preserve. When a member of the public emails, calls, or communicates such concerns in person, City Staff should direct them to submit this information using the on-line form. Failing that, City Staff may enter their concerns for them using this form. Problems that City Staff discover on their own should also be recorded using this form. In this way, the form will become a record-keeping method for trail issues in the Preserve. The form will allow for record of location, severity, area, type, photos/videos, and additional comments. City Staff will promptly pass on to FPAB reports filed with the online form regardless of whether FPAB needs to make recommendations or take action. The Environmental Coordinator can work with volunteers or city employees to take action.

FPAB will review these reports and the actions taken by The Environmental Coordinator. If needed, FPAB will provide comments or make recommendations to City Council regarding the implementation of the Master Trail Plan to achieve the stewardship goals.

### **Volunteer Help in Cooperation with City Staff**

The City of Greenbelt Public Works Environmental Coordinator in coordination with the Forest Preserve Advisory Board has in the past received help from volunteers for annual clean-up events. Volunteers have usually been area residents and students who need to meet their volunteer service hours for Prince George's County Public Schools. Volunteers can also help execute planned trail maintenance in accordance with this Plan. Coordination between the Forest Preserve Advisory Board and the Environmental Coordinator will be required to plan and facilitate these efforts. These activities must also be supervised by the Environmental Coordinator, or someone authorized by them, to ensure that volunteer efforts are successful. Instruction will be needed to perform maintenance safely and in accordance with the methods proposed in this document. An informal stewardship team of local ecology experts might also help with such efforts.

## APPENDIX A

Below is an example of the online form that should be used to report trail issues in the Forest Preserve. This example was created by an interested resident and may not represent the final version of the reporting form on the city's website.

### GFP Trail Issue Reporting Form

Use this form to report trail issues in the Greenbelt Forest Preserve. Provide as much information as you can. A volunteer will contact you for clarifications if needed. Thank you.

---

First and Last Name \*

Your answer

---

---

Email address

Your answer

---

---

Phone number (required if no email was provided)

Your answer

---

---

Type of issue \*

- Tree fall
- Stream or Wet Area Crossing
- Trail damage
- Major Poison Ivy obstacle
- Large trash pile

Other: \_\_\_\_\_

Preserve Track Name \*

- North Woods Track (i.e. Anywhere North of Northway Rd.)
- Other tracks
- I do not know

Location description \*

Your answer \_\_\_\_\_

Severity

- Low
- Medium
- High
- Do not know

Description of the trail issue \*

Your answer \_\_\_\_\_

Do have photos or videos? If you do please let us know below and we will contact you by email. You can also email the photos directly to [example@greenbeltmd.gov](mailto:example@greenbeltmd.gov) or include URLs of the photo(s) below if you use something like Dropbox or Google Drive to save your photos

Your answer

---

Do have photos or videos? If you do please let us know below and we will contact you by email. You can also email the photos directly to [example@greenbeltmd.gov](mailto:example@greenbeltmd.gov) , or include URLs of the photo(s) below if you use something like Dropbox or Google Drive to save your photos.

Your answer

---

(optional) Any suggestions about what could be done to improve the issue you are reporting?

Your answer

---

Is the issue near a sensitive area? (e.g. with rare plants or a particularly valuable habitat)

- Yes
- I do not think so
- No
- I do not know

Any additional comments?

Your answer

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